A dictionary of dental science, biography, bibliography and medical terminology / By Chapin A. Harris.

Contributors

Harris, Chapin A. (Chapin Aaron), 1806-1860.

Publication/Creation

Philadelphia : Lindsay & Blakiston, 1849.

Persistent URL

https://wellcomecollection.org/works/rq34v9p5

License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.

wellcome collection

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

27,660/B

K.I.o
19

Unable to display this page

DICTIONARY

OF

DENTAL SCIENCE.

A

DICTIONARY

OF

DENTAL SCIENCE,

BIOGRAPHY, BIBLIOGRAPHY,

AND

MEDICAL TERMINOLOGY.

BY

CHAPIN A. HARRIS, M. D.—D. D. S.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF DENTAL SURGERY IN THE BALTIMORE COLLEGE—AUTHOR OF PRINCIPLES AND PRACTICE OF DENTAL SURGERY, ETC., ETC.



PHILADELPHIA:
LINDSAY & BLAKISTON.
1849.

WELLCOME
HISTORICAL
MEDICAL
LIBRARY

ENTERED, according to the act of Congress, in the year one thousand eight hundred and forty-nine, by LINDSAY & BLAKISTON, in the Clerk's Office of the District Court of the Eastern District of Pennsylvania.

J. W. WOODS, PRINTER,
Baltimore.

TO

ELEAZAR PARMLY, M. D.—D. D. S.,

Provost of the Baltimore College of Dental Surgery,

AS A TOKEN

OF ESTEEM FOR GREAT PROFESSIONAL AND PRIVATE WORTH,

AND

AS A TRIBUTE OF AFFECTIONATE REGARD,

THIS WORK

IS RESPECTFULLY DEDICATED,

BY HIS FRIEND,

THE AUTHOR.

PREFACE.

THE scheme of the present work suggested itself to the author several years ago, but it was not until the commencement of 1846, that he determined to attempt its preparation, as he was fearful that the leisure which he might obtain from arduous professional duties would not be sufficient to enable him to accomplish so great an undertaking. To a profession already existing as an important branch of Surgery, and rapidly extending, some Cyclopedia, embracing satisfactory definitions of its technicalities, and a compendium of necessary, important, and curious collateral information, seems indispensable. The several Medical and Surgical Dictionaries, however well adapted to the wants of the student and practitioner of general medical science, contain no information on the subject of practical dentistry. Operations of every kind except those upon the teeth, are there carefully described, and all manner of pathological affections examined and illustrated, except those peculiar to the organs of mastication. Though abounding with words, they are deficient in those terms which are the common technicalities of Dental Surgery.

While the necessity for a Dictionary was thus urgent, it occurred to the author, that much interest would be given to the work by inserting in it some brief account of the men who have been the pioneers to the advancement of this part of surgery, and whose genius, industry, and self-devotion are worthy of the grateful remembrance of the profession. In order to obtain materials for such memoirs, as well as other information proper to be recorded in a work like the one proposed, a circular, setting forth the design and scope of the projected undertaking, and asking contributions of the kind above stated, was sent to every dentist in Europe and America, whose address could be procured. But unfortunately for the author and for those into whose hands the work may fall, the information contained in most of the responses which he received, was not sufficiently definite to be rendered available; yet, for the willingness manifested by those of his professional brethren who did respond, to assist him in carrying out the plan of the work, he takes this first public opportunity to return his grateful acknowledgments. To Dr. E. B. Gardette, of Philadelphia, he is indebted for a well written biographical notice of his father, the late Dr. James Gardette. He is also indebted to Professor Paul F. Eve, of the Georgia Medical College, Drs. S. P. Hullihen, of Wheeling, Va., W. H. Elliot, of Montreal, and N. H. Fisher, of Providence, R. I., for much valuable information, and to Dr. E. Townsend, of Philadelphia, for a biographical notice of the late Dr. Edward Hudson.

The author has of course made free use of the Medical and Surgical Dictionaries of the day; among which he

would particularly mention, *Dunglison's*, *Hooper's*, *Palmer's*, *Gardner's*, and *Cooper's*. It was his intention to have given due credit to each author for all original matter taken from his pages, but this was soon found to be impracticable, inasmuch as a very superficial comparison of the several works of the kind, in our own and other languages, served to show that definitions had been considered common property, and transferred from one work to another without acknowledgment, until the paternity was beyond satisfactory ascertainment. He has, therefore, availed himself of the common privilege which seems to have been claimed by all the lexicographers who have preceded him. For the definitions of medical terms, he claims no originality, although where alterations seemed necessary, he has not hesitated to make them, and in all instances he has endeavored to be as concise as possible. In this department of the work he has confined himself, for the most part, to mere definitions, but upon all subjects connected with Dental Surgery proper, as well as with the anatomical structures, diseases, treatment, and operations on the mouth and adjacent parts, this Dictionary will be found very full, and for all matter, not original, obtained from other sources than his own productions, proper credit is given.

In introducing the various formulæ of dentifrices, mouth washes, elixirs, and pastes, given by different writers on dental hygiene and therapeutics, the author does not wish to be considered as recommending their employment. Some of them may be used with impunity, and perhaps advantage, but most of them are objectionable.

For the introduction of medical terms into the work, the author does not deem any apology necessary. Dental Surgery is now an acknowledged specialty of general medicine, and a knowledge of the latter is certainly as necessary to the dentist, as to the aurist, the oculist, the obstetrician, or the practitioner of any other branch of the curative art.

Owing to the difficulties which the author has experienced in procuring accurate reliable information, the biographical department is not as full as he could have desired. He has, in consequence, been compelled to pass in silence the names of many eminent writers and practitioners, who once occupied conspicuous places in the dental profession, and to whom many of its members are indebted for much of the knowledge they possess; while some of the notices which he has introduced, were prepared from very scanty and indefinite information.

In the bibliographical department, he has, in most instances, confined himself to the title or name of the publication noticed, and each will be found under the name of its author. To have given a critical analysis of each work or paper, would have required more space than could consistently have been devoted to this class of subjects. He has also, unintentionally, omitted to notice several publications—an oversight which he did not discover until it was too late for correction.

The work, as it now appears, is the result of much labor and patient effort to procure and furnish to the profession, to which he is ardently attached, a compendium of infor-

mation such as it seemed to want. The undertaking has been accomplished—with what exertion and self-denial can never be known to any who may look into these pages, nor will the difficulties be remembered by the author, if he shall have contributed something of value to the literature of the profession of his choice, and removed any obstacles from the path of the student.

CHAPIN A. HARRIS.

North East Corner of Charles and Lexington streets.

Baltimore, *March*, 1849.

A

DICTIONARY

OF

DENTAL SCIENCE

AND

MEDICAL TERMINOLOGY.

A.

ABB

A. ā ā. *ava, ana*, of each. See Abbreviation.

ABAL'IENATED. *Abalienatus.* Benumbed; rendered useless; separated; cut off.

ABAPTIS'TON. *Abaptista.* The name by which the old trepan was designated.

ABAREMO-TEMO. A tree which grows in the mountains of Brazil, supposed to be a mimosa.

ABARTICULA'TION, from *ab* and *articulus*, a joint. That species of articulation which admits of manifest motion. See Diarthrosis and Synarthrosis.

ABBREVIA'TION. *Abbreviatio;* from *brevis*, short. Abbreviations were formerly much used in medical prescriptions. They consist of parts of words or certain symbols by which the thing meant is designated. Thus,

A. *Aa.* Ana, of each.

Abdom. Abdomen, the belly.

Abs. febr. Absente febre, in the absence of fever.

ABB

Add. Adde et addantur, add, let there be added.

Ad lib. Ad libitum, at pleasure.

Admov. Admoveatur, let it be applied.

Adst. febre. Adstante febre, when the fever is on.

Aggred. febre. Aggrediente febre, while the fever is coming on.

Altern. horis. Alternis horis, every other hour.

Applic. Applicetur, let there be applied.

Aq. Aqua, water.

Aq. bull. Aqua bulliens, boiling water.

Aq. dest. Aqua destillata, distilled water.

Aq. marin. Aqua marina, sea water.

B. A. Balneum arenæ, a sand bath.

Baln. tep. Balneum tepidum, a warm bath.

Bib. Bibe, drink.

Bis ind. Bis indies, twice a day.

Bol. Bolus, a bolus.

Bull. Bulliat, let it boil.

B. V. Balneum vaporis, a vapor bath.

Cap. Capiat, let him take.

Cat. Cataplasma, a cataplasm.

Cath. Catharticus, a cathartic.

C. C. Cornu cervi, hartshorn.

C. M. Cras mane, to-morrow morning.

C. C. U. Cornu cervi ustum, burnt hartshorn.

Cochl. Cochleare, a spoonful.

Cochl. inf. Cochleare infantis, a child's spoon.

Cochl. magn. Cochleare magnum, a large spoon.

Cochl. mod. Cochleare modicum, a dessert spoon.

Col. Colatus, strained.

Comp. Compositus, compound.

Conf. Confectio, a confection.

Cont. Continuetur, let it be continued.

Cort. Cortex, bark.

C. V. Cras vespere, to-morrow evening.

Cuj. Cujus, of which.

Cujusl. Cujuslibet, of any.

Deb. spiss. Debita spissitudo, a proper consistence.

Dec. Decanta, decanted.

Decub. Decubitûs, lying down, going to bed.

De d. in d. De die in diem, from day to day.

Dej. alvi. Dejectiones alvi, alvine evacuations.

Det. Detur, let it be given.

Dext. lat. Dextra lateralis, right side.

Dieb. alt. Diebus alternis, every other day.

Dieb. tert. Diebus tertiis, every third day.

Dig. Digeratur, let it be digested.

Dil. Dilutus, diluted.

Dim. Dimidium, one-half.

Dist. Distillata, distilled.

Div. Divide, divide.

Donec alv. sol. fuer. Donec alvus soluta fuerit, until the bowels are opened.

Drach. Drachma, a drachm.

Enem. Enema, a clyster.

Exhib. Exhibeatur, let it be exhibited.

F. Fiat, let it be made.

F. Pil. Fiat pilula, make into a pill.

F. V. S. Fiat venæsectio, bleed.

Filt. Filtra, filter.

Flor. Flores, flowers.

gr. Granum, a grain.

Gtt. Gutta, a drop.

Gum. Gummi, gum.

H. D. Horâ decubitus, at bed time.

H. S. Horâ somni, on retiring to rest.

Ind. Indies, daily.

Inf. Infusum, infusion.

Lat. dol. Lateri dolenti, to the pained side.

lb. Libra, a pound weight.

Lim. Limones, lemons.

Liq. Liquor, liquor.

Lot. Lotio, lotion.

M. Misce, mix.

Mac. Macera, macerate.

Man. Manipulus, a handful.

Min. Minimum, the 60th part of a drachm, by measure.

Mist. Mistura, a mixture.

Mitt. Sang. Mittatur sanguis, let blood be drawn.

Mod. præs. Modo præscriptio, in the manner directed.

Mor. sol. More solito, in the usual way.

Muc. Mucilago, mucilage.

N. Nocte, at night.

O. Octarius, a pint.

Ol. Oleum, oil.

Omn. alt. hor. Omnibus alternis horis, every other hour.

Omn. hor. Omni horâ, every hour.

Omn. man. Omni mane, every morning.

Omn. noct. Omni nocte, every night.

O. O. O. Oleum olivæ optimum, best olive oil.

Ov. Ovum, an egg.

Ox. Oxymel, a syrup of honey and vinegar.

Oz. Unca, an ounce.

P. Æ. Partes æquales, equal parts.

Part. vic. Partitis vicibus, in divided doses.

Pil. Pilula, a pill.

P. r. n. Pro re natâ, as circumstances may require.

P. rat. æt. Pro ratione ætatis, according to the age of the patient.

Pulv. Pulvis, powder.

Q. P. Quantum placet, as much as you please.

Q. S. Quantum sufficiat, as much as is sufficient.

℞. Recipe, take.

Rad. Radix, root.

Rect. Rectificatus, rectified.

Red. in pulv. Redactus in pulverem, powdered.

S. A. Secundum artem, according to art.

Sem. Semen, seed.

Semi-dr. Semi-drachma, half a drachm.

Semi-h. Semi-hora, half an hour.

Serv. Serva, keep; preserve.

Si op. sit. Si opus sit, if there be occasion.

Si vir. perm. Si vires permittant; if the strength will permit.

Sol. Solutio, solution.

Solv. Solve, dissolve.

Sp. Spiritus, spirit.

Sq. Squama, scale.

Ss. Semis, a half.

St. Stet, let it stand.

Subtep. Subtepidis, lukewarm.

S. V. Spiritus vinosus, spirit of wine.

S. V. R. Spiritus vinosus rectificatus, rectified spirits of wine.

Syr. Syrupus, syrup.

T. O. Tinctura opii, tincture of opium.

T. O. C. Tinctura opii camphorata. Paregoric elixir.

Tr. or *tinct.* Tinctura, tincture.

Trit. Tritura, triturate.

Ung. Unguentum, ointment.

V. S. Venæsectio, venæsection.

Zz. Zingiber, ginger.

♏. Minimum, a minim.

℈. Scrupulum, a scruple.

ʒ. Drachma, a drachm, troy.

℥. Unca, an ounce, troy.

℔. Libra, a pound.

ss. Semissis, half.

j. one; *ij.* two; *iij.* three; *iv.* four, &c. See Prescription.

ABDO'MEN. From *abdere*, to hide, because it conceals the viscera. The largest cavity in the body. Superiorly, it is bounded by the diaphragm; inferiorly, by the pelvis; laterally and anteriorly, by an expansion of muscles, and posteriorly, by the lumbar vertebræ.

ABDOM'INAL. Pertaining to the abdomen.

ABDUC'TOR. From *abducere*, to separate. A muscle which separates the part or member to which it is attached from some other part.

Abductor Auricularis. A portion of the posterior auris.

Abductor Indicis Manus. An interosseous muscle of the fore-finger.

Abductor Indicis Pedis. A muscle of the fore-toe.

Abductor Medii Digiti Pedis. A muscle of the foot.

Abductor Minimi Digiti Manus. A muscle of the little finger.

Abductor Minimi Digiti Pedis. A muscle of the little toe.

Abductor Pollicis Manus. A muscle of the thumb.

Abductor Pollicis Pedis. A muscle of the great toe.

Abductor Tertii Digiti Pedis. A muscle of the foot.

ABERRA'TION. *Aberratio;* from *ab* and *errare*, to stray; to wander from. To deviate from that which is natural.

ABLA'TION. From *aufero* to take away. The taking from the body that which is hurtful.

ABLU'TION. *Ablutio;* from *abluere*, to wash away. The act of cleansing or purifying with water.

ABNOR'MAL. From *ab*, from, and *norma*, rule. Not conformable to rule; irregular.

ABOR'TION. *Abortio.* Miscarriage; expulsion of the fetus before the sixth month.

ABRA'SION. *Abrasio;* from *abradere*, to wear or rasp off. In *Medicine*, the word as generally employed, signifies an excoriation of the mucous membrane of the stomach, intestines, bladder, &c.

Abrasion of the Teeth. The wearing away of the teeth, or gradual loss of a portion of their substance. It is produced both by mechanical and chemical causes. When by the former, it is called mechanical, and when by the latter, spontaneous abrasion,

Mechanical Abrasion of the Teeth.

When the incisores and cuspidati of the upper jaw shut over the corresponding teeth of the lower, the teeth rarely suffer much loss of substance from mechanical causes; it is only in those cases where the former fall plumb upon the latter, that mechanical abrasion, in any very considerable degree, takes place, but when they come together in this manner, their crowns sometimes become entirely worn down to the gums, or at least, those occupying the anterior part of the alveolar arch. The reason of this is obvious. When the upper and lower front teeth strike plumb upon each other, the lateral motions of the jaw are not in the least restricted, consequently the cutting edges of the incisores and points of the cuspidati, as well as the cusps of the bicuspides and molares, though not as much, are subjected to an amount of friction to which they are not exposed in any of the other relationships which the upper and lower teeth sustain to each other.

It is thought by Mr. Bell, that certain kinds of diet, contribute more to the abrasion of the teeth, than others, and this, to some extent, is, doubtless, true.

The wearing away of the crowns of the teeth would expose the lining membrane, but for a most curious and singular provision of nature which consists in the gradual obliteration of the pulp cavities, by a deposition of osseous matter. By this wise provision of nature, an event, from which the most painful consequences would result, is prevented, so that but little inconvenience results from it, or, at any rate, not until the crowns of the teeth are worn down to the gums.

Spontaneous Abrasion of the Cutting Edges of the Front Teeth.

Spontaneous abrasion of the cutting edges of the front teeth, is an affection of rare occurrence. It commences on the central incisores of both jaws at the same time, and from thence proceeds to the lateral incisores, the cuspidati, and sometimes, though not very often, to the first bicuspides. Teeth that are affected by it, have, when the jaws are closed, a truncated appearance, do not come closely together, and are rather more than ordinarily susceptible to the action of acids, heat, and cold. In other respects, little or no inconvenience is experienced from it until the crowns of the affected teeth are nearly destroyed.

Its progress is exceedingly variable. It sometimes destroys half or two-thirds of the crowns of the central incisores in two or three years; at other times seven or eight years are required for the same effect to result from it. In one case which came under the author's observation the abrasion had extended to the bicuspides; and the central incisores of both jaws were so much wasted, that, on closing the mouth they did not come together by nearly three-eighths of an inch, and but two years had elapsed since its commencement. In another case, where it had been going on for seven years, it had not extended to the cuspidati, and the space between the upper and lower incisores, did not exceed an eighth of an inch. The subjects of both were gentlemen—the first aged about twenty-eight, the other, twenty-one.

Mr. Bell gives an interesting case of a gentleman whose teeth were affected with this disease:—"About fourteen months since, 1831, this gentleman," he says, "perceived that the edges of the incisores, both above and below, had become slightly worn down, and, as it were, truncated, so that they could no longer be placed in contact with each

other. This continued to increase and extend to the lateral incisores, and afterwards, successively, to the cuspidati and bicuspides. There has been no pain, and only a trifling degree of uneasiness, on taking acids, or any very hot or cold fluids, into the mouth. When I first saw these teeth, they had exactly the appearance of having been most accurately filed down at the edges, and then perfectly and beautifully polished; and it has now extended so far, that when the mouth is closed, the anterior edges, of the incisores of the upper and lower jaws are nearly a quarter of an inch asunder. The cavities of those of the upper jaw must have been exposed, but for a very curious and beautiful provision, by which they have become gradually filled by a deposit of new bony matter, perfectly solid and hard, but so transparent that nothing but examination by actual contact, could convince an observer that they were perfectly closed. This appearance is exceedingly remarkable, and exactly resembles the transparent layers which are seen in agatose pebbles, surrounded by a more opaque mass. The surface is uniform, even, and highly polished, and continuous, without the least break, from one tooth to another. It extends, at present, to the bicuspides, is perfectly equal on both sides, and when the molares are closed, the opening, by this loss of substance in front, is observed to be widest in the centre, diminishing gradually and equally on both sides to the last bicuspides."

Dr. J. D. McCabe, a dentist of Richmond, Virginia, described to the author in 1837, a case he had seen a short time before, very similar to the one mentioned by Mr. B. He also gave him the name and age of the individual and the length of time the abrasion had continued; but these, he does not recollect with sufficient accuracy to repeat.

"On the cause of this very extraordinary occurrence," says Mr. Bell, "I confess myself wholly at a loss to offer even a conjecture. It cannot have been produced by the friction of mastication, for these teeth have never been in contact since the first commencement of the affection; nor does it arise from any apparent mechanical cause; for nothing is employed to clean the teeth, excepting a soft brush. Absorption will equally fail to account for it; for not only would this cause operate, as it always does, irregularly, but we find that, instead of these teeth being the subjects of absorption, a new deposition of bony matter is, in fact, going on, to fill the cavities which would otherwise be exposed."

Mr. Bell is correct in supposing that it is not the result either of mechanical action or absorption. If, then, neither of these agencies are concerned in its production, it must be the result of some chemical action, though not of the salivary fluid of the mouth, for if it was, every part of the exterior surfaces of the teeth would be acted on alike. This affection, the author believes, is produced by an acidulated condition of the mucous fluid of the mouth. The anterior surfaces of the upper front teeth not being so frequently washed by the saliva, the mucous secretions of the upper lip, are often permitted to remain on these portions of the teeth for a considerable length of time, and to the presence of this, when in an acidulated condition, the author believes the denuding process to be attributable, while the abrasion of the cutting edges of the incisores and cuspidati is caused by acid mucus, secreted by the mucous follicles of the end of the tongue, which is brought in contact with the cutting extremities of the front teeth almost constantly, and he believes that it is in this way that their loss of substance is effected.

Dr. Nühn, a German physician, describes a gland which he has recently discovered in the interior of the tip of the tongue. It is represented as having a number of ducts opening through the mucous membrane over it. It is thought

to be a mucous gland, and it may be, that this gland in peculiar idiosyncrasies, or habits of body, secretes the acidulated mucus which is concerned in the production of the affection under consideration. But, whether this hypothesis be correct or not, it is evidently the result of the action of a chemical agent, and that this is furnished by the end of the tongue is rendered more than probable from the fact, that it is brought in contact with the cutting edges of the teeth, every time the mouth is opened.

This, like some of the other affections of the teeth, cannot be cured. If the tendency to an acidulated condition of the mucous secretions of the mouth could be overcome or counteracted, its progress, perhaps, might be arrested. But, this is a branch of practice that comes rather within the province of the medical than the dental practitioner, so that any directions upon the subject here, are unnecessary.

ABRUS. The name of a genus of leguminous plants.

Abrus Precato'rius. Wild or Jamaica liquorice.

AB'SCESS. *Abscessus;* from *abscedo*, I separate from, or depart. A collection of pus in the cellular tissue, or some other part, resulting from inflammation and suppuration. Abscesses are designated according to the part in which they are situated. See Alveolar Abscess.

ABSCESSUS. Abscess.

Abscessus Lumborum. Lumbar abscess.

Abscessus Mammæ. Mammary abscess.

Abscessus Pectoris. Empyema.

Abscessus Pulmonum. Empyema.

Abscessus Oculi. Hypopion.

Abscessus Gangrænosus. Anthrax.

Abscessus Capitis Sanguineus Neonatorum. Cephalæmatoma.

ABSCIS'SION. *Abscissio;* from *abscindere*, to cut off. The excision of a morbid or superfluous part, especially of a soft part.

ABSCISSIO PRÆPUTII. Circumcision.

ABSIN'THIUM. Wormwood. See Artemisia.

ABSOR'BENT. *Absorbens;* from *absorbere*, to suck up. A delicate transparent vessel, which exercises the function of absorption; also, any medicine which destroys acidity in the stomach and bowels, as magnesia, chalk, &c.

Absorbent System. The vessels and glands of the body which exercise the function of absorption.

ABSORP'TION. *Absorptio;* from *absorbere*, to suck, or drink up. An organic function which consists in the taking up of substances by the absorbent vessels. In *Chemistry*, the word is used to signify the conversion of a gaseous fluid, by a union with some other substances, into a fluid or solid.

ABSTE'MIOUS. *Abstemius;* from *abs*, without, and *temetum*, wine. Abstaining from the use of wine. The word is also used to signify temperate living, with regard to diet, &c.

ABSTER'GENT. From *abstergere*, to cleanse. Any application which cleanses the part to which it is applied; a detergent.

AB'STINENCE. *Abstinentia;* from *abs*, from, and *tenere*, to hold. The act of voluntarily refraining from any indulgence, as from the use of certain articles of food, or drinks.

ABSTRAC'TION. From *abstraho*, I draw off. In *Chemistry*, a word used to denote the separation of the fluid from the solid which it had dissolved.

ACA'CIA. *Acacia;* from *ακη*, a point, so called because of its spines. The name of a genus of leguminous trees and shrubs with pinnated leaves. The Egyptian thorn.

Acacia Catechu. See Catechu.

Acacia Gum. Gum arabic, which is colorless or of a pale yellow; it is hard, brittle, soluble in water, but not in alcohol. It is mucilaginous, and used as a demulcent and for suspending oily medicines.

ACACIA VERA. The name of the tree from which gum arabic is obtained.

ACALE'PHÆ. *Acalephans.* A class of radiated animals.

AC'ARUS. The name of a numerous genus of insects. The tick.

ACARUS DOMESTICUS. Domestic tick, found in the head, and near gangrenous sores, and on dead bodies.

ACARUS SCABIEI. The itch tick.

ACARUS AUTUMNA'LIS. The harvest bug, or wheel insect. There are also several other species.

ACCELERA'TION. *Acceleratio.*—Increase of motion.

ACCELERA'TOR URI'NÆ. A muscle of the penis.

ACCENT. Inflection of the voice.

ACCES'SION. *Accessio;* from *accedere,* I approach. The commencement of a disease.

AC'CESSORY. From *accedere,* I approach. Connected with, or dependent upon any thing; helping to produce an effect. It is also a name given to several muscles and nerves.

AC'CIDENT. *Accidens;* from *accidere,* to happen. Literally, the occurrence of an event not foreseen or expected. In *Pathology,* the unexpected occurrence of any thing in the course of a disease not essentially connected with it, and hence differing from an inherent symptom or phenomenon. In *Surgery,* hemorrhage, erysipelas and severe pain, constitute the accidents of a wound. In *Dental Surgery,* an injury inflicted upon any part of the mouth in the performance of an operation, or from the application of a remedy. See Fractures of the Teeth, and of the Alveolar Processes; also, Hemorrhage after the Extraction of Teeth. The term is applied, too, by French dentists, to the morbid phenomena which develop themselves during dentition.

ACCIP'ITER. From *accipere,* to take. A name given to a bandage applied over the nose, from its likeness to the claw of a hawk.

ACCLI'MATED. *Climati assuetus;* from *ad,* and *clima,* climate. Accustomed to a climate.

ACCOUCHEMENT. Parturition.

ACCOUCHEUR. A man who practices midwifery,

ACCRE'TION. *Accretio;* from *ad,* and *crescere,* to increase. Growth; also, a growing together of parts.

ACCRETION OF THE JAWS. See Dentition, second,

ACEPHALUS. From α, priv. and κεφαλη, a head. A monster without a head.

ACER. Acrid, sharp.

ACER SACCHARI'NUM. Maple; sugar maple.

ACERB'. *Acerbus;* from *acer,* sharp. A sour, bitter and astringent taste, properties met with in some kinds of unripe fruit.

ACE'RIDES. From α, priv. and κηρος, wax. A plaster without wax.

ACES'CENT. *Acescens;* from *acescere,* to grow sour. Turning sour; a tendency to acidity.

ACETAB'ULUM. From *acetum,* vinegar, because it resembles the old saucer in which vinegar was held. A name given to the cavity which receives the head of the os femoris, or thigh bone.

ACE'TAS. From *acetum,* vinegar. A salt formed by the union of acetic acid with an earthy, alkaline, or metallic base. An acetate. The medicinal acetates are those of ammonia, potassa, zinc and lead.

ACETAS AMMONIÆ. Acetate of ammonia.

ACETAS PLUMBI. Acetate of lead; sugar of lead.

ACETAS POTASSÆ. Acetate of potassa; a salt formed by the union of subcarbonate of potassa and acetic acid.

ACETAS ZINCI. Acetate of zinc, a salt formed by the union of zinc and acetic acid.

ACETIC ACID. *Acidum aceticum,* vinegar; distilled vinegar. This acid when in an impure and dilute state, is called vinegar. There are four varieties of acetic acid, viz. wine vinegar, malt

vinegar, sugar vinegar, and wood vinegar. This acid unites readily with most of the earths; it acts slowly upon the teeth, increases their sensibility, and puts them on edge. In *Medicine*, it is used as a rubefacient.

ACETIME'TER. An instrument for ascertaining the strength of vinegar.

AC'ETONE. From *acetum*, vinegar. Pyro-acetic spirit.

ACEOTO'SA. From *acescere*, to be sour. Sorrel.

ACETOSEL'LA. From *acetosa*, sorrel, because of the acidity of its leaves. The wood sorrel, on account of the grateful taste of its leaves, is sometimes used in salads, but the oxalic acid which it contains, is exceedingly hurtful to the teeth, inasmuch as it has a much stronger affinity for the lime of these organs than the phosphoric acid with which it is united. The teeth of persons in the country where sorrel abounds, are often injured by being frequently rubbed with its leaves for the purpose of removing stains and discolorations from them.

ACE'TUM. From *acer*, sour. Vinegar; a sour liquid, produced by fermentation.

Acetum Aromaticum. Aromatic vinegar.

Acetum Cantharidis. Vinegar of cantharides.

Acetum Colchici. Vinegar of meadow saffron.

Acetum Destillatum. Distilled vinegar.

Acetum Opii. Vinegar of opium.

Acetum Scillæ. Vinegar of squills.

ACHEI'LIA. From α, priv. and χειλος, lip. A malformation, consisting in a deficiency of one or both lips.

A'CHEIR. From α, priv. and χειρ, hand. Without hands.

ACHILLE'A. The name of a genus of composite plants. Milfoil; yarrow.

Achillea Age'ratum. A plant possessing the qualities of tansy.

Achillea Atra'ta. A plant possessing the same or similar properties.

Achillea Millefo'lium. The common yarrow, or milfoil.

Achillea Ptar'mica. Sneezewort, or bastard pillitory.

ACHIL'LES. The name of a Grecian hero, after whom a tendon and plant have been named.

Achillis Tendo. The strong round tendon of the gastrocnemii muscles.

A'CHOLUS. From α, priv. and χολη, bile. Deficiency of bile.

ACHRAS. The sapota plumb-tree.

Achras Sapota. The name of a tree in South America, bearing a delicious fruit, and having a very astringent bark.

ACHROMAT'IC. From α, priv. and χρωμα, color. A lens constructed so as to correct the refrangibility of the common lenses.

ACID. Any liquid, solid, or gaseous body, imparting to the organs of taste a sour sensation. The acids constitute a very numerous class of chemical substances. When combined with the alkaline and other bases, they form a class of bodies called salts.

ACID'IFIABLE. Capable of being converted into an acid, by uniting with an acidifying principle.

ACIDIFICA'TION. The act of being changed into an acid.

ACIDITY. Sourness of the stomach.

ACIDULOUS. Slightly acid.

ACIDUM. From *acer*, sour. An acid.

Acidum Aceticum. See Acetic Acid.

Acidum Aceticum Dilutum. Dilute acetic acid.

Acidum Aceticum Concentratum. Concentrated acid of vinegar; vinegar deprived of its water.

Acidum Acetosum. Acetum.

Acidum Arsenicum. See Arsenious Acid.

Acidum Benzoicum. See Benzoic Acid.

Acidum Boracicum. See Boracic Acid.

Acidum Carbonicum. See Carbonic Acid.

Acidum Aluminosum. Sulphuric acid.

Acidum Citricum. See Citric Acid.

Acidum Muriaticum. See Muriatic Acid.

Acidum Muriaticum Oxygenatum. See Oxygenated Muriatic Acid.

Acidum Nitricum. See Nitric Acid.

Acidum Nitrosum. See Nitrous Acid.

Acidum Phosphoricum. See Phosphoric Acid.

Acidum Succinicum. See Succinic Acid.

Acidum Sulphureum. See Sulphureous Acid.

Acidum Sulphuricum. See Sulphuric Acid.

Acidum Tartaricum. See Tartaric Acid.

Acidum Vitriolicum. See Sulphuric Acid.

ACINE'SIA. From α priv. and κινησις, immobility. Loss of motion.

AC'INUS. A grape stone. In *Anatomy*, the ultimate secreting follicles of glands. The granulations of conglomerate glands, as in the liver, &c. are called acini.

ACIPEN'SOR. The name of a genus of fish of the order chondropterygii. The sturgeon.

ACMAS'TICOS. From ακμη, the top, and σταω, I remain. A species of fever which preserves a uniform intensity to the end.

ACME. From ακμη, vigor. The height of a disease.

ACNE. *Acna.* A small pimple on the face.

ACOL'OGY. *Acologia;* from ακος, a remedy, and λογος, a discourse. A treatise on remedies.

ACONITINA. From *aconitum;* the name of a plant. A poisonous alkaloid extracted from the aconitum napellus.

ACONI'TUM. *Aconite.* Monkshood; wolf's-bane. Also, the name of a genus of plants, of which the *aconitum napellus* is the most important.

Aconitum Antho'ra. A plant possessing virtues similar to those of the aconitum napellus.

Aconitum Napel'lus. Aconite; the common monkshood, or wolf's-bane.

ACONU'SI. From ακοη, audition, and νουσος, disease. Diseases of the ears and audition.

A'COR. From *aceo,* to be sour. Acidity; acrimony.

ACO'RIA. Canine appetite.

A'CORUS. The name of a genus of plants.

Acorus Calamus. Sweet flag.

ACOTYLE'DON. Without a cotyledon.

ACOU'STIC. *Acusticus;* from ακουω, I hear. Belonging to the ear, as the acoustic nerve, acoustic medicine, &c.

ACOUS'TICS. The science of the cause, nature, and phenomena of sounds.

ACRA'LEA. From ακρος, extreme. The extremities, as the hands, feet, head, ears, nose, &c.

ACRID. From ακρος, a point or summit. Things which have a hot, pungent taste.

AC'RIMONY. *Acrimonia;* from *acris,* acrid. A quality in substances which irritates, corrodes, or dissolves others.

ACRIS'IA. From α priv. and κρινω, to judge. A state of disease, with regard to which no correct judgment can be formed.

ACROCHOR'DON. From ακρος, extreme, and χορδη, a string. A small, dense tumor, attached by a narrow base or pedicle.

ACROMA'NIA. From ακρος, extreme, and μανια, madness. Incurable madness.

ACRO'MIAL. *Acromialis.* Pertaining to the acromion.

Acromial Artery. The external scapular artery.

Acromio-Coracoid. Belonging or relating to the acromion and coracoid processes.

ACRO'MION. From ακρος, extreme and ωμος, the shoulder. A process of the shoulder blade; the one terminating the spine of the scapula.

A'CROPIS. From ακρον, the extremity, and οψ, the voice. Faulty articulation, from a defect in the tongue.

ACROT'ICA. From ακρος, summit. Diseases affecting the external surface of the body.

ACROTE'REA. The extremities of the body.

ACROTISMUS. From α, priv. and κροτος, pulse. Defect of pulse; asphyxia.

ACTION. *Actio;* from *agere*, to act. The exertion of power or force; the operation of an active power. In *Physiology*, the functions of the body may be divided into *voluntary*, *involuntary* and *mixed*. The *voluntary* are those which are produced by acts of the will: the *involuntary*, are those excited either *mediately*, through the nerves and spinal marrow, or *immediately*, as those of irritability; and to the *mixed*, belong the acts of respiration.

Action, Morbid. A derangement of the ordinary functions of the body.

ACTIVE. *Activus*. Acting with energy. Applied to medicines and diseases.

ACTUAL CAUTERY. A heated iron. This was once much used by surgeons for the extirpation and cure of diseases.

ACUPUNC'TURE. *Acupunctura;* From *acus*, a needle, and *punctura*, a puncture. The puncturing of parts with a small needle.

ACUS. A needle.

ACUTE. Sharp. In *Pathology* a sharp pain; a disease characterised by a certain degree of severity, or which is attended by violent symptoms, and runs its course in a few days.

ACUTENAC'ULUM. *Porte-aiguille*. A needle-holder.

Acutenaculum, Dr. Hullihen's. An instrument invented by Dr. S. P. Hullihen, of Wheeling, Va. to be used in passing the needle through the cleft edges of the soft palate in the operation of staphyloraphy. This instrument is composed of two parts, a staff and a slide. The staff is a small steel bar, six inches in length, two-eighths of an inch in breadth, and one-eighth of an inch in thickness, with an arm at the superior end, rising at a curved right angle from the staff, and half an inch long. On the external or superior side of this arm, a duplicate arm is retained by a steel spring attachment, which brings the two arms in close contact, forming the jaws of the instrument. Between these two arms, and on the duplicature is a small groove formed to receive the ligature, and when the ligature is pressed between the jaws of the instrument, they open, and it slides to the point designed for its reception, and immediately below which, the jaws are perforated with a hole for the introduction of the needle during the employment of the instrument in the operaeration. Two inches from the inferior end of the staff, a pair of rings are affixed to receive the thumb and index finger, the rings standing parallel with the staff, and sideways to the direction of the arms of the instrument. A slide formed of steel, equal in length, thickness, and breadth to the staff, and made to fit to the upper surface of the staff, and to move with ease up and down on guides placed on the same. From the superior end of the slide is a short straight spear-shaped needle, constructed with an eye just back of its point, with a small notch opening to it from the upper surface.

When the ligature has been fitted in its place of reception in the jaws of the instrument, and the slide adjusted to the staff; the slide is forced upwards, the needle and jaws approach each other, and the needle passes through the hole in the latter just under the ligature, which is caught in the notch of the needle, and as the slide is drawn backwards, the eye of the needle is threaded and the ligature drawn through the velum, and the introduction of the stitch completed.

ADAM'S APPLE. See Pomum Adami.

ADAMANT'INE CEMENT. A

nostrum used for filling teeth, consisting of finely pulverized silex or pumice-stone, mixed with an amalgam of mercury and silver. See Amalgam.

ADDUC'TOR. From *ad*, and *ducere*, to draw. A name given to those muscles that draw together the parts of the body to which they are attached.

Adductor Brevis Femoris. A muscle of the thigh.

Adductor Indicis Pedis. A muscle of the foot.

Adductor Longus Femoris. A muscle of the thigh.

Adductor Magnus Femoris. Also, a muscle of the thigh.

Adductor Minimi Digiti Pedis. A muscle of the foot.

Adductor Pollicis Manus. A muscle of the thumb.

Adductor Pollicis Pedis. A muscle of the great toe.

Adductor Tertii Digiti Pedis. A muscle of the foot.

ADECTA. Sedatives.

A'DEN. A gland.

ADEN'IFORMIS. From *aden*, a gland, and *forma*, resemblance. Resembling a gland.

ADEN'ITIS. From *aden*, a gland, and it is action, but used to denote inflammation. Glandular inflammation.

ADENOG'RAPHY. From αδην, a gland, and γραφω, I describe. A description of the glands.

ADENOL'OGY. *Adenologia;* from αδην, a gland, and λογος, a discourse. A treatise on the glands.

ADENO'SUS. *Adenosus.* From αδην, a gland. Gland-like.

ADEPS. Lard; the fat of the hog.

A'deps Præparata. Prepared hog's lard.

ADHE'SION. *Adhæsio;* from *adhæreo*, to stick to. The sticking or growing together of parts.

ADHESIVE INFLAMMATION. Inflammation which terminates by an adhesion of the inflamed and separated surfaces.

Adhesive Plaster. A plaster possessed of adhesive qualities used by surgeons.

ADIAN'TUM. The name of a genus of ferns. Maidenhair. See Asplenium.

ADIPOCIRE. *Adipocera*, from *adeps*, fat, and *cera*, wax. The base of biliary calculi, sometimes called cholesterine. Also, a fat like substance formed from animal matter under certain circumstances.

AD'IPOSE. From *adeps*, fat. Fatty.

AD'JUVANT. From *ajuvare*, to aid. A medicine added to a prescription to assist the operation of the principal ingredient.

ADNATA TUNICA. Conjunctivia.

ADOLES'CENCE. From *adolescere*, to grow. Growing; applied to the human race; the period between puberty and the full development of the body.

ADULA'RIA. A mineral, the most perfect variety of feldspar.

ADULT AGE. The age succeeding adolescence.

ADVENTI'TIOUS. *Adventitius;* from *advenio*, I come to. Accidental; not inherent. In *Medicine*, acquired diseases.

ADYNA'MIA. *Impotentia;* from α priv. δυναμις, power. A defect of vital power; debility.

ÆROL'OGY. *Ærologia;* from αηρ, air, and λογος, a discourse. A treatise on the nature and properties of air.

ÆROM'ETER. An instrument for ascertaining the weight of air, or bulk of gases.

ÆS'CULUS. From *esca*, food. The name of a genus of plants. Horse-chesnut.

Æsculus Hippocas'tanum. The horse-chesnut tree.

ÆTAS. Age.

ÆTHER. *Ether;* from αιδηρ, air. A volatile liquor, obtained by distillation, from alcohol and a concentrated acid.

Æther Rectificatus. Rectified ether.

Æther Sulphuricus. Sulphuric ether.

ÆTHEREA. The ethers.

ÆTHERIAL OIL. Oleum ætherium.

ÆTHMOID. Ethmoid.

ÆTIOL'OGY. *Ætiologia;* from αιτια, a cause, and λογος; a discourse. The doctrine of the causes of disease.

AFFECTION. *Affectio;* from *afficio* or *affectare,* I move or influence. The word as used, is synonymous with disease.

AFFINITY. Attraction, or that tendency which different substances have to unite.

AFFINITY, COMPOUND. Affinity is called compound, when three or more bodies, by their mutual attraction, unite and form one homogeneous body.

AFFINITY, DOUBLE. *Double elective attraction.* "When two bodies, each consisting of two elementary parts, come in contact, and are decomposed, so that their elements become reciprocally united and produce two new compound bodies, the decomposition is then termed decomposition by double affinity."

AFFU'SION. *Affusio;* from *affundere,* to pour upon. The pouring of any liquid upon any body.

AGACEMENT DES DENTS.—Teeth set on edge.

AGARICUS MINERALIS. One of the purest of the native carbonates of lime.

AGARICUS PIPERATUS. The pepper mushroom, or pepper agaric.

AGARICUS VIOLACEUS. Violet mushroom.

AGATE. A mineral consisting of chalcedony, blended with jaspar, amethyst, quartz, opal, heliotrope, and cornelian, in variable proportions.

AGE. In *Human Physiology,* the duration of the life of man: also, a certain period of life marked by a difference of state. The ancients divided life into six stages: 1. *Infantia vel pueritia,* reckoned from birth to the fifth year of age. 2. *Adolescentia, ætas bona;* youth, reckoned to the eighteenth, and youth, properly so called, to the twenty-fifth year. 3. *Juventus,* from the twenty-fifth to the thirty-fifth year. 4. *Virilis ætas, ætas firmata,* thirty years; *ætas constans,* forty years; *ætas matuera,* fifty years; manhood, from the thirty-fifth to the fifty-fifth year. 5. *Senectus, ætas provecta, ætas mala;* old age, from fifty to sixty. 6. *Crepita ætas, ætas ingravescens, ætas decrepita, ætas affecta, ætas exacta, ætas extrema:* decrepid age, ending in death.

The most common division of life is into four stages, or ages; namely, *infancy, youth, manhood,* and *old age.* But the division of Hallé seems to be more distinctly marked by changes in the economy than any other. He divides life into,

1. *Infancy,* extending from birth to the seventh year of age. To this, three subdivisions have been proposed. 1. The period of the commencement of the eruption of the temporary teeth, which is usually about the seventh month from birth. 2. The period of the completion of first dentition, which is ordinarily about two-and-a-half years after birth. 3. When the temporary teeth begin to be replaced by the permanent teeth.

2. *Childhood,* from the seventh to the fifteenth year, during which period the whole contour of the face and expression of the countenance is changed by the elongation of the jaws, development of the alveolar borders, and dentition of all the permanent teeth, except the dentes sapientiæ, or last molares.

3. *Adolescence,* or *adolescentia,* extending from the fifteenth to the twenty-fifth year of age, during which period, the jaws elongate sufficiently to admit the last molares, the eruption of which completes the dentition of the permanent teeth.

4. *Adult age,* or *virilitas,* a period of life extending in man from the twenty-fifth to the sixtieth year of age, and in woman from the twenty-first to the fiftieth. This period is divided again, into increasing, established, and decreasing virility, during which, the teeth undergo no change except that which they experience from disease.

Unable to display this page

Unable to display this page

alieno, to estrange. Applied to a wandering of the mind; insanity.

AL'IMENT. *Alimentum;* from *alo*, to nourish. Food. Any substance, which when taken into the system, is capable of nourishing it.

ALIMENT'ARY. Pertaining to food, or aliment.

Alimentary Canal. The conduit through which the food passes from the mouth to the anus.

Alimentary Duct. Alimentary canal.

AL'IMENTATION. The act of nourishing.

ALIPTÆ. From αλειφω, I anoint. Those who anointed the Atheltæ after bathing.

ALIS'MA PLANTAGO. Water plantain.

ALKALES'CENT. Any substance containing manifest alkaline properties, or in which these properties are becoming developed or predominate.

ALKALI. A term applied to all chemical substances which possess the power of neutralizing acids, so as to form a saline compound.

Alkali Causticum. Caustic alkali.

Alkali Fixum. Fixed alkali.

AL'KALINE. Substances which contain, or partake of the nature of an alkali.

ALKALIZA'TION. The impregnation of any thing with an alkaline salt.

AL'KALOID. A salifiable base existing as a proximate principle in some vegetables, and possessing the properties of an alkali only in a slight degree.

ALKALOM'ETER. An instrument for determining the purity of the alkalies of commerce.

ALKERM'ES. A celebrated electuary, in which kermes is the basis.

ALLANITE. A mineral of a brownish black color, having associated with it mica and feldspar.

ALLEN, C. C. Author of a Review of an Article on Resolutions of the American Society of Dental Surgeons, in relation to amalgams for filling teeth, published in American Journal of Dental Science, volume sixth. —Editor of the New York Dental Recorder, a monthly periodical, devoted to the theory and practice of Surgical, Medical and Mechanical Dentistry, beginning with volume second.

ALLEN, JOHN. Author of a Dissertation on Dental Professional Excellence, published in the American Journal of Dental Science, volume sixth.

AL'LIUM. From *aleo*, I smell; garlick. Also, the name of a genus of plants.

Allium Cepa. The common onion.

Allium Porrum. The leek or porret.

ALLŒO'SIS. *Alloiosis;* from αλλος, another. Alteration in the character of a disease, or in the constitution.

Allœot'ica. From αλλος, another. Alterative medicines.

ALLOGNO'SIS. From αλλος, another, and γινωσκω, to know. Perversion of mind; incapability of distinguishing persons.

ALLOPHANE. The name of a mineral, of a blue, and sometimes of a green or brown color.

ALLOPATH'IC. *Allopathicus.* Pertaining to allopathy.

ALLO'PATHIST. One who practices or advocates allopathy.

ALLO'PATHY. *Allopathia;* from αλλος, another, and παθος, disease. The ordinary practice of medicine, in contradistinction to the homœopathic, or that system of medical practice which proposes the cure of disease by establishing in the system a condition opposite to, or different from, the disease to be cured.

ALLOTRIODON'TIA. From αλλοτριος, foreign, and οδους, a tooth. The transplantation of teeth. See Transplanting Teeth.

ALLOY. A compound of two or more metals. See Gold Plate; also, Gold Solder.

ALLSPICE. See Myrtus Pimenta.

ALLVEY. Author of a Dissertation

on Dentition, and the diseases attending it. Edinburg, 1788.

ALMOND. See Amygdala.

ALOE. The name of a genus of plants.

Aloe Perfo'liata. *Aloe Succotorina.* Socotrine aloes is obtained from a variety of the aloe perfoliata.

AL'OES. The inspissated juice of different species of aloe.

Aloes, Caballi'na. Horse aloes.

Aloes, Hepat'ica. Barbadoes aloes.

Aloes, Socotorina. Socotrine aloes. Turkey aloes.

ALOET'IC. A medicinal preparation containing aloes.

ALOGOTROPH'IA. From αλογος, disproportionate, and τρεφω, to nourish. Unequal nutrition, especially of the bones in rickets.

ALOUCH'I. A gum obtained from the canella alba tree.

ALPHON'SIN. An instrument for the removal of bullets, so called from the name of the inventor.

AL'PHUS. *Alphos;* from αλφαινω, to change; because it changes the color of the skin. Lepra alphoides.

ALTERA'TION. *Alteratio;* from *alter,* other. In *General Pathology,* a change in the structure of an organ, or in the nature of excreted fluids. In *Dental Pathology;* applied to the changes which occur in the structure of the enamel of the teeth, or the dentinal tissue of these organs, from the action of morbific influences. Also, to changes which take place in the gums.

AL'TERATIVE. *Alterans;* from *altero,* to change. A medicine given for the purpose of restoring the healthy functions of the body without causing any sensible evacuation.

ALTHÆ'A. The name of a genus of plants. Marsh-mallow.

Althæa Officina'lis. The systematic name of marsh-mallow.

ALUM. A double sulphate of potassa and alumina.

Alum Earth. A massive mineral of a blackish brown color.

Alum Curd. A coagulum made of alum with the white of an egg.

Alum Root. Heuchera cortusa.

Alum Whey. A whey made by boiling alum with milk.

ALU'MEN. Alum.

Alumen Catinum. Potash of commerce.

Alumen Commu'ne. Common alum.

Alumen Exsicca'tum. Burnt alum: Alum melted until ebullition ceases.

Alumen Fixum. Potash.

Alumen Roma'num. Roman alum. Red alum.

Alumen Rupeum. Native alum.

ALU'MINA. Alumine; alum earth. Pure clay.

Alumina Pura. Alumina.

ALUMINÆ SULPHAS FUSUS. Alumen exsiccatum.

ALUMINOUS. Pertaining to, or of the nature of, alum.

ALUMINITE. An opaque, dull-white mineral.

ALU'SIA. Illusion; hallucination.

ALVEA'RIUM. The external auditory canal.

ALVE'OLAR. *Alveolaris;* from *alveus,* a cavity. Pertaining to the alveoli.

Alve'olar Abscess. *Gum-bile.* A collection of pus in a sac formed in the socket of a tooth at the extremity of the root, which generally escapes through the gum. This disease has usually been designated by the appellation of gum-bile, a name that by no means conveys a correct idea of its true character; inasmuch as the gums are only secondarily affected, while the seat of the disease is always within the alveolus. Hence, Mr. Bell has given it the more appropriate name of *alveolar abscess.*

Abscess is one of the most common affections to which the alveolar cavities are liable. Its effects are always exceedingly pernicious, not only to the socket in which it is seated, and the gums covering it, but, also, often to the general health.

Whenever severe inflammation of the

periosteum of the root of the tooth, or of that of the alveolus is excited, an effusion of coagulable lymph takes place, which, hardening, attaches itself to the root, around its apex, and in this manner a sac is formed. This, as suppuration takes place, distends, and presses against the surrounding wall of the alveolus, causing an opening to be formed through the socket and gums for the escape of the matter.

A direct lateral passage, however, is not always effected through the alveolus and gums for the escape of the matter. It is sometimes made through the roof of the mouth, the cheek, or lower part of the face; at other times the matter traverses the jaw for a considerable distance, divesting it of its periosteum, and causing necrosis and exfoliation; and at other times again, it is discharged into the maxillary sinus.

The formation of an abscess in the alveolus of a dens sapientia of the lower jaw, is sometimes attended with severe inflammation and swelling of the tonsils, so as not unfrequently to render deglutition exceedingly difficult. At other times, it induces inflammation and rigidity of the muscles of the cheek.

The immediate cause of alveolar abscess is, inflammation of the lining or investing membrane of a tooth, and whatever tends to produce this, may be regarded as its exciting cause. It often happens that the plugging of a tooth in which the lining membrane has been destroyed, gives rise to the formation of abscess by preventing the escape of the matter that forms at the apex of its root. Its egress being thus prevented, it accumulates, and becomes a source of irritation to the investing membrane in its immediate vicinity, which, in consequence, thickens, forms a tubercle, and ultimately suppurates. The roots of teeth, too, on which artificial crowns are placed, for the same reason, often give rise to abscess. Inflammation of the lining membrane of a tooth, caused by exposure to cold, or from other injury, not unfrequently gives rise to this disease.

After an abscess has formed, it seldom happens that the integrity of the parts is so perfectly restored as to prevent a recurrence of the disease. Although the opening through the socket and gums closes, and the formation of matter for a time ceases, yet the tooth being deprived of vitality, is a constant source of irritation to the surrounding parts, which will, in most cases, sooner or later, induce a recurrence of the disease.

The effects of alveolor abscess being such as have been described, every possible means should be employed to prevent its occurrence; for, after it has formed, it can seldom be radically cured except by the removal of the tooth. The treatment, therefore, should be preventive, rather than curative; for the latter to be effectual, calls for the removal of the organ. When, therefore, the formation of abscess is apprehended, leeches should be promptly applied to the gum over the affected alveolus. Should this fail to check the inflammation, the aching tooth should be extracted. This practice, it is true, is objected to by some, under the supposition that it is unsafe to remove a tooth, when the gums around it are inflamed and swollen. But such apprehension is groundless. A tooth may be removed with as much impunity at such time as at any other. The operation, we admit, is somewhat more painful, but this need never deter any one from having it performed. When the tooth occupying the affected alveolus is removed, the sac often comes away with it, and thus the formation of an exterior opening for the escape of the matter is prevented.

But there are circumstances which sometimes render the performance of this operation inadvisable. For example, certain states of the constitutional health, as well as that of the mind of the patient. In such cases, the escape of the matter through the face or cheek,

should be carefully guarded against, by the application of fomentations to the gums, and by opening the tumor as soon as it becomes soft, with a lancet or other suitable instrument.

The application of fomentations and emollient poultices to the face, is not, perhaps, under hardly any circumstances, advisable; unless the disease is seated in the socket of a front tooth, where there is no danger of the formation of an external opening, and even then, it is very questionable whether they are productive of any advantage. When the disease is seated in the socket of a molar tooth, external fomentations, tend, in a greater or less degree, to promote the escape of the matter through the cheek.

When an opening of this kind forms, it is apt to become fistulous, if the tooth be not extracted. Examples of this sort are of frequent occurrence, and during the continuance of the opening, the patient experiences very great annoyance, and, even after the discharge of matter has ceased and the opening healed, there generally remains a deep scar.

The following case is described by Mr. Thos. Bell: Two years before he saw it, an external fistulous opening had been formed, through which matter was continually discharged: "At this time," says he, "a funnel-shaped depression existed in the skin, which could be seen to the depth of nearly three-quarters of an inch, and a small probe could be passed through it into the sac of the abscess, underneath the root of the tooth. The abscess had now remained open for two years, during the latter of which, the parts had been in the state I have described. I removed the tooth, and, as I anticipated, no further secretion of pus took place, but so perfectly had the communication been established, that when the gum healed, it left by its contraction a fistulous opening, through which a portion of any fluid received into the mouth, passed readily to the outside of the cheek; and I could, with care, introduce a fine probe completely through the passage. So free in fact was the communication, that some of the hairs of the whiskers, with which the external portion of the depression was filled, grew through the internal opening, and appeared in the mouth.

"I passed a very fine knife, resembling the couching needle, through it, and removed, as perfectly as possible, a circular portion of the parietes of the tube towards the gum; but failed in this, and several other attempts, to produce a union. It was, therefore, resolved that the whole parietes of the depression should be removed, extending the incision as far internally as possible; and the integuments thus brought together as a simple wound. In consequence, however, of the suppuration of a small gland in the immediate neighborhood, the operation was deferred until that should have been dispersed, and it, therefore, remains at present, in the state in which I have described it."

It is scarcely ever necessary, however, in cases of this sort, to resort to any other means than such as are required for the cure of the abscess; for when this is effected, the external opening usually closes of itself. But should this not happen, the practice adopted by Mr. Bell, should be resorted to.

The irritation produced by an abscess in the alveolus of a dens sapientiæ is greater than that produced by one in the socket of any other tooth. Its effects are sometimes of a most alarming character.

In 1832, the author was requested to see a medical gentleman, Dr. E., who resided thirty miles in the country. He received the message at 9, P. M., and arrived early next morning, after having rode nearly the whole night. After examining the case, he was informed that Dr. E. had been attacked, two weeks before, with a severe pain in the left dens sapientiæ of the lower jaw. After having suffered severely for three or four

days, he called in a neighboring physician, who, after several fruitless attempts to extract the tooth, pronounced its removal impracticable.

The inflammation extended rapidly to the gums, fauces, tonsils and muscles of the jaws and face. To these symptoms, high and intractable fever, and obstructed deglutition soon supervened. Fomentations to the face, free and repeated blood-letting, and cathartics had been employed for the purpose of subduing the inflammation, but without effect, and the muscles of his jaws soon became so rigid and firmly contracted, that his mouth could not be opened. His breathing also was difficult.

Such was his situation in which the author found him. It was impossible to introduce an instrument into his mouth for the removal of the tooth, and under these circumstances, it was deemed advisable to continue the practice that had been previously pursued, and in addition, to administer an enema with two grains of tartarized antimony. At about 7 o'clock in the evening, the fever was succeeded by alternate paroxysms of cold and heat, an indication that suppuration had taken place, and from the obstruction of deglutition, it was supposed to be in the throat.

An effort was now made to pry open his mouth with a wooden wedge, which was partially successful, but his jaws could not be forced sufficiently asunder to admit of the introduction of the smallest tooth forceps between his teeth. While his jaws were thus partially separated, he attempted to swallow some warm tea, but in the effort, the tumor in the throat bursted, and nearly a table-spoonful of pus was discharged from his mouth, and it was supposed that double that quantity passed down into his stomach. He now obtained immediate relief, but it was not until the next day that his mouth could be opened sufficiently for the removal of the affected tooth, and upon the roots of which there was a sac about the size of a large pea. The cause being now removed, he was soon restored to health.

Dr. I. I. Greenwood, of New York, describes a very interesting case of alveolar abscess, caused by a diseased dens sapientiæ. A passage for the escape of the matter had been effected through the base of the alveolus, perforating the levator, effecting the rotary muscle opposite the orifice, and making way through the anterior surface of the skin, immediately under the centre of the belly of the digastricus, and escaped into the meatus auditories externus, through a large orifice, which the patient had been in the habit of probing with a silver instrument about six inches in length, and cleansing with lint. The irritation occasioned by the fistulous opening and the frequent introduction of this instrument, had caused so great a rigidity of the muscles of the jaw that the patient could not open his mouth more than half an inch. The probe passed readily in to the roots of the affected tooth.

Dr. G. believing that the removal of this tooth constituted the proper remedial indication, at once performed the operation, and in a short time had the satisfaction of seeing his patient entirely restored.

Inflammation, simply, of the periosteum of a dens sapientiæ often gives rise to very serious effects. The dentition, too, of these teeth is frequently productive of the most alarming consequences. Dr. Moberly, of New Market, Md., communicated to the author a case which gave rise to phthisis pulmonalis, and ultimately caused the death of the patient.

After the matter has effected a passage through the alveolus, and a fluctuation is felt in the gum, when pressure is applied, an opening should be made with a lancet for its immediate escape.

The occurrence of alveolar abscess, previously to the shedding of the temporary teeth, very frequently causes necrosis and exfoliation of the alveoli of

several of the adjoining organs, and sometimes of considerable portions of the jaw, often injuring, and occasionally carrying away the rudiments of several of the permanent teeth. Two examples of this sort have fallen under the observation of the author.

Alve'olar Arches. The margins of the two jaws in which the teeth are implanted. They are more or less elliptical in their shape—the lower more so than the upper. The number of cavities which they contain correspond with the number and shape of the roots of the teeth. They consist of two bony plates, an external and an internal, with transverse septa which form the alveoli.

At first, the growth of the alveolar arches keep pace with, and for a time, outstrip that of the teeth, enclosing them in cells, by which admirable provision of nature, a firm support is given to the gums previously to the eruption of the teeth.

The structure of the outer and inner plates of these arches is compact, while interiorly, it is cellular. Each alveolus is pierced at the bottom with one or more minute foramina for the transmission of the vessels and nerves which go to the lining membrane of the tooth.

Alve'olar Artery. This artery arises from the internal maxillary, and winds around the maxillary tuberosity from behind forwards, sending off twigs through the posterior dental canals which supply the molar teeth, and go to the maxillary sinus—while the main branch passes forward, furnishing the gums and alveolo-dental periosteum.

Alve'olar Cavities. The cavities which receive the roots of the teeth.

Alve'olar Exosto'sis. See Exostosis of the Alveoli.

Alveo'lar Necro'sis. See Necrosis of the Alveoli.

Alve'olar Vein. The distribution of this is similar to that of the artery.

ALVE'OLO-DENTAL PERIOS'TEUM. The membrane which lines the alveoli and invests the roots of the teeth. It is attached to the gums at the necks of the teeth, and Mr. Thos. Bell is of the opinion that it also forms the lining membrane of these organs. "The periosteum of the maxillary bones," says he, "after covering the alveolar processes, dips down into each alveolar cavity, the parietes of which it lines. From the bottom of the cavity, where the vessels and nerve of the internal membrane enter, it appears to be reflected over the root of the tooth, which it entirely covers as far as the neck, at which part it becomes intimately connected with the gum."

In enumerating the membranes of the teeth, he divides them into *deciduous* and *persistent*. The former consists of two lamellæ which form the sac, and which, after performing the functions assigned them, are absorbed—the latter derived from the periosteum of the maxillary bones, consists of the periosteum of the internal dental cavity, which, during the formation of the tooth, had performed the office of secreting the bone, the periosteum of the root, and the periosteum of the alveolus, of which the last mentioned is a reflection.

Delabarre, and other writers, are of the opinion that the alveolo-dental periosteum is derived from the membranes of the sac, especially the outer, of the tooth, and that it is continuous with the gums.

But, it is not a matter of much consequence, whether it be a continuation of the gums, a production of the pulp sac, or an extension of the periosteum of the maxillary bones, since the great practical fact remains the same, that such a membrane does exist—that this membrane is fibrous, and that it constitutes the bond of union between the alveoli and the teeth.

ALVE'OLUS. A diminutive of *alveus*, a cavity. The socket of a tooth.

ALVEUS. A cavity.

Alveus Ampullas'cens. The enlarged part of the thoracic duct.

Alveus Communis. The common

duct of the ampullæ of the semi-circular canals of the internal ear.

ALVIDU'CA. From *alvus*, the belly, and *duco*, to draw. Purging medicines.

ALVI'FLUXUS. From *alvus*, and *fluo*, to flow. A diarrhœa.

AL'VINE. From *alvus*, the belly. Relating to the belly or bowels.

ALVUS. The abdomen, stomach and entrails.

Alvus Astricta. Constipation; costiveness.

Alvus Renum. The pelvis of the kidney.

ALYCE. From αλυω, to be anxious. Morbid restlessness.

ALYS'MUS. From αλυω, to be restless. Anxiety; restlessness arising from disease.

ALYS'SUM. Madwort.

AMALGAM. *Amalgama;* from αμα, and γαμειν, to marry. A compound of mercury with another metal is called an amalgam. Within the last few years an amalgam of mercury and silver, either alone, or in combination with finely pulverised silver, glass or pumice-stone, has been much used by many dentists for filling teeth, but it is thought by eminent practitioners to be the most objectionable material that has ever been employed for this purpose. In the first place, being introduced in a soft state, it shrinks from the walls of the cavity in hardening, so as to admit the secretions of the mouth; consequently, instead of arresting the decay of the tooth, it often accelerates it. Secondly, the exposed surface soon oxydizes, turns black, and gives to the tooth an exceedingly disagreeable appearance; and thirdly, in the mouths of individuals very susceptible to the action of mercury, it is liable to produce salivation, and even in the best constitutions, it seldom fails to exert a morbid effect upon the alveolo-dental periosteum, gums, and mucous membrane of the mouth.

The above objections, it is thought, should, under *all circumstances*, and in *all cases*, preclude the use of this article. Any tooth that can be substantially and permanently filled with any substance, and remain in the mouth with impunity, can be filled with gold, which is the best material that can be employed in this operation.

Some practitioners contend, who at the same time admit that it is the worst article that can, in ordinary cases, be employed for filling teeth, that it may be used with advantage in "certain cases," but from the objectionable properties of the material, it would seem, that the opinions of such are erroneous.

AMARA DULCIS. Bitter-sweet.

Amara Medicamenta. Bitters; tonics.

AMARINE. The bitter principle of vegetables.

AMA'RUS. Bitter. The principal bitters used for medicinal purposes are, gentian, quassia, calumba, cinchona, &c.

AMASE'SIS. *Amassesis;* from α, priv. μασησις, mastication. Impaired or imperfect mastication.

AMAURO'SIS. From αμαυροω, to darken or obscure. Gutta serena. Partial or total loss of sight, without any apparent alteration in the eye, arising from paralysis of the optic nerve.

AMAUROT'IC. Affected with amaurosis.

AMBER. *Succinum;* a hard, brittle, tasteless, bituminous substance, sometimes transparent, but oftener semi-transparent or opaque. It is met with of all colors, but is most frequently yellow or orange.

AM'BERGRIS. A concrete substance, exhaling a pleasant aromatic odor, found in irregular masses floating on the sea, near the Molucca islands, Madagascar, Sumatra, on the coast of Coromandel, Brazil, America, China and Japan. It is thought by some to be produced in the intestines of the whale.

AMBIDEX'TER. *Amphidexios;*

from *ambo*, both, and *dexter*, right. One who uses both hands with equal facility.

AMBLYO'PIA. From αμβλυς, dull, and ωψ, the eye. Dimness of sight.

Amblyopia Dissitorum. Short-sightedness.

Amblyopia Proximorum. Long-sightedness.

AMBOR. Ambergris.

AMBUS'TUM. A burn or scald.

AMENORRHŒ'A. From α, priv. μην, a mouth, and ῥεω, to flow. A partial or totally obstructed menstruation.

AMEN'TIA. From α, priv. and *mens*, the mind. Imbecility of mind.

AMERICAN CENTAURY. Sabbatia angularis.

American Dittany. Cunila mariana.

American Hellebore. Veratrum album.

American Ipecacuanha. Euphorbia ipecacuanha, and gillenia trifoliata.

American Sanicle. Heuchera Americana.

American Senna. Cassia marilandica.

American Spikenard. Aralia racemosa.

AMETRIA. Intemperance.

AMMA. A truss.

AMMI. Bishop's-weed.

AMMO'NIA. A volatile alkali, obtained from sal ammoniac.

AMMONIA'CUM. Gum-ammoniac. The inspissated juice of the *dorema ammoniacum*, a plant which grows in Persia. It is brought to this country in small white globules, clustered together, or in lumps of a brownish color.

AMMONIÆ ACETATIS LIQUOR. Aqua ammonia acetatæ. A solution of acetate of ammonia.

Ammoniæ Carbonas. Subcarbonate of ammonia.

Ammoniæ Liquor. Liquor of ammonia.

Ammoniæ Murias. Muriate of ammonia.

Ammoniæ Nitras. Nitrate of ammonia.

Ammoniæ Subcarbonas. Subcarbonate of ammonia.

Ammoniæ Subcarbonatis Liquor. A solution of subcarbonate of ammonia.

Ammoniæ Tartras. A salt composed of tartaric acid and ammonia.

AMMONIURET. A compound of ammonia and a metallic oxyd.

AMNESIA. From α, priv. and μνησις, memory. Loss of memory; forgetfulness.

AM'NION. *Amnios.* The innermost membrane which surrounds the fetus.

AMO'MUM CARDAMO'MUM.—Cardamomum minus. The seeds of this plant, when chewed, impart to the mouth a grateful aromatic warmth.

Amo'mum Granum Paradisi. Cardamomum majus. The plant which affords the grains of paradise, or the greater cardamomum seeds.

Amomum Verum. The true stony parsley.

Amomum Zingiber. The plant which affords ginger.

AMOR. Love.

AMOR'PHA. The name of a genus of plants, of which only one species is known. The bruised root of this is said to possess anti-odontalgic virtues.

AMORPH'OUS. Of an irregular shape; without a determinate form.

AMPHARIS'TEROS. Awkward with the hands; opposed to ambidexter.

AMPHIARTHRO'SIS. From αμφι, both, and αρθρωσις, an articulation. A mixed articulation, in which the articular surfaces of bones are united by an intermediate substance, which admits of but little motion, as the vertebræ by the intervertebral cartilages.

AMPHIBIA. A class of animals so formed as to be capable of living on land, and for a long time under water.

AMPHIBIOL'OGY. *Amphibiologia;* from αμφι, on both sides; βιος, life, and λογος, a discourse. A treatise on amphibious animals.

AMPHIB'IOUS. Capable of living in two elements, air and water, as the crocodile, beaver, frog, &c.

AMPHIBLESTROI'DES. From αμφιβλεστρον, a net, and ειδος, a resemblance. Reticular; like a net.

AMPHIDIARTHRO'SIS. From αμφι, both, and διαρθρωσις, a movable articulation. The temporo-maxillary articulation is so designated by Winslow, because it partakes both of ginglymus and arthrodia.

AMPHIMERI'NA. From αμφι, about, and ημερα, a day. A fever which continues but one day.

AMPULLES'CENS. See Alveus Ampullescens.

AMPUTA'TION. *Amputatio;* from *amputo*, to cut off. The removal of a limb, or finger, or any projecting part of the body by means of a cutting instrument.

AM'ULET. *Amuletum.* From αμμα, a bond, because it was tied round the person's neck. Any image or substance worn around the neck for the prevention of disease or evil.

AMYE'LIA. From α, priv. and μυελος, marrow. A monstrosity, in which there is a partial or complete absence of the spinal marrow.

AMYG'DALA. From αμυσσω, to lancinate, because there appear fissures in the shell. The almond, of which there are two kinds; the *amygdala amara*, and *amygdala dulcis*. The first is the bitter and the second the sweet almond.

Amyg'dalæ Oleum. Oil of almonds.

AMYG'DALUS. The common almond tree.

Amyg'dalus Communis. The systematic name of the plant from which the common almond is procured.

Amygdalus Per'sica. The common peach-tree.

A'MYLUM. *Amyleon.* Starch.

Amylum Marantæ. Arrow-root.

AMYO'SIS. Imperforate iris.

AMY'RIS ELEMIF'ERA. The name of the plant from which the gum-elemi is obtained.

Amyris Gileadensis. The name of the plant from which the opobalsamum is obtained. The balm of Gilead tree.

AMYX'IA. From α, priv. and μυξα, mucus. Deficiency of mucus.

ANAB'ASIS. From αναβαινω, I ascend. An augmentation or paroxysm of disease.

ANABEX'IS. From αναβηττω, to cough up. Expectoration.

ANABLEP'SIS. From ανα, again, and βλεπω, to see again. Recovery of sight.

ANAB'OLE. From ανα, upwards, and βαλλω, I cast. Vomiting; expectoration.

ANABROCHE'SIS. From ανα, again, and βροχεω, to re-absorb. Re-absorption of matter.

ANACAR'DIUM. From ανα, without, and καρδια, a heart. Without heart. Fruit, which, instead of having the seed in the inside, have the nut growing out of the end.

Anacardium Occidentale. The cashew nut.

Anacardium Orientale. The Malacca bean.

ANACATHAR'SIS. From ανα, upwards, and καθαιρομαι, to purge up. Purgation upwards; expectoration.

ANACATHAR'TIC. An expectorant or emetic.

ANACLI'SIS. From ανακλινω, to recline. A couch.

ANACOLLE'MA. From ανα, together, and κολλαω, I glue. A collyrium composed of agglutinating substances, and stuck on the forehead; also, healing medicines.

ANACONCHOLIS'MOS. From αναχογχολιζω, to sound as a shell. A gargarism; so called, because it makes a a noise in the throat like the sound of a shell.

ANACTE'SIS. From ανακταομαι, to recover. Recovery of strength; recovery from sickness.

ANACY'CLEON. *Anacycleus.* A mountebank; a charlatan.

ANADIPLO'SIS. From ανα, again, and διπλοω, I double. A redoubling or frequent return of paroxysms, or disease.

ANÆ'MIA. Privation of blood.

ANÆSTHE'SIA. From α, priv. and αισθανομαι, I feel. Deprived of the sense of touch. Insensibility.

ANÆSTHE'TIC. Belonging to insensibility. See Chloroform.

ANÆSTHISIA. Loss of sensation.

ANA'GRAPHE. A prescription.

ANALCINE. Cubic zeolite.

ANALEP'SIS. From αναλαμβανω, to restore. A recovery of strength after disease.

ANALEP'TIC. Restorative medicines or food.

ANALO'SIS. From αναλισκω, to consume. Atrophy; wasting.

ANAL'YSIS. From αναλυω, to resolve. The resolution of any compound substance into its primary and constituent parts.

Analysis of Ashes. See Washing.

Analysis of Alloy. See Gold, refining of.

ANAMNES'TIC. From αναμιμνησκω, to remember. A remedy for strengthening or improving the memory.

ANANAS. Bromelia ananas. The egg-shaped pine apple.

ANAPHALANTI'ASIS. From αναφαλαντιας, bald. Loss of the hair of the eyebrows, and baldness in general.

ANAPHORYX'IS. From αναφορυσσω, to grind down. The reduction of any thing to a very fine powder.

ANAPLERO'SIS. From αναπληροω, to fill again. The restitution of wasted parts.

ANAPLEU'SIS. From αναπλευω, to float upon. Looseness of an exfoliated bone, or of a tooth. For the latter, see Gomphiasis.

ANAPNEU'SIS. From αναπνευω, to respire. Respiration.

ANAPTO'SIS. From αναπιπτω, to fall back. A relapse.

ANARRHŒ'A. From ανα, upwards, and ῥεω, to flow. An afflux of fluid to the head or towards the upper part of the body.

ANASAR'CA. From ανα, through, and σαρξ, flesh. General dropsy, or an accumulation of lymph in the cellular membrane.

ANASTAL'TICA. From αναστελλω, to contract. Styptic medicines.

ANASTOMOSIS. From ανα, with, and στομα, a mouth. The communication of vessels with each other.

ANASTOMO'TIC. *Anastomoticus.* Medicines which open the pores and mouths of vessels.

ANAT'OMY. From ανα, and τεμνω, to cut. The dissection of organized bodies so as to expose the structure, situation, and use of parts. The word, also, as at present used, has reference to the study of the parts, and their uses, of organized bodies. In a word, it may be properly called the science of organization, and in its abstract sense, that of the human body.

Anatomy, Comparative. Zootomy. The comparative study of the organs of animals generally.

ANATRE'SIS. From ανα, and τιτραω, to perforate. A perforation like that made by trepanning.

ANATRI'BE. From ανατριβω, to rub. Friction upon the body.

ANAU'DIA. From α, priv. and αυδη, the speech. Privation of speech. Catalepsy.

ANCHORA'LIS. From αγκων, the elbow. The olecranon, or projecting part of the elbow.

ANCHYLO'SIS. From αγκυλομαι, to bend. A stiff joint.

ANCONE'US. From αγκων, the elbow. The name of a muscle situated on the back of the elbow.

Ancone'us Externus. Triceps extensor cubiti.

ANCONOID. Belonging to the elbow.

ANCUS. From αγκων, the elbow. A distorted or stiff elbow.

ANCYLOBLEPH'ARON. From αγκυλη, a hook, and βλεφαρον, an eyelid. A disease of the eye, by which the eyelids are closed.

ANCYLOGLOS'SUM. From αγκυλη, a hook, and γλωσσα, the tongue. Tongue-tied.

Unable to display this page

Unable to display this page

the tongue. Restricted or impaired motion of the tongue.

ANKYLOMERIS'MUS. From αγκυλη, a contraction, and μερος, a part. Morbid adhesion between parts.

ANKYLO'SIS. See Anchylosis.

ANKYLOT'OMUS. From αγκυλος, crooked, and τεμνειν, to cut. A curved knife.

ANNEAL. A process by which glass is rendered less frangible, and metals, which have become hard and brittle, soft and malleable. In many of the arts, the process of annealing is a matter of great importance, and in none more so, than that of the dentist's. The gold employed for filling teeth, unless thoroughly and uniformly annealed, cannot be introduced into the cavity so as to fill it in a sufficiently thorough and substantial manner, to prevent its liability of coming out, and at the same time, to secure the perfect preservation of the organ. So difficult indeed is it, to properly anneal the gold which is employed for this purpose that not more than one manufacturer of gold foil in twenty, has attained a sufficiently high degree of skill in this nice and difficult process, to enable him to accomplish it in a manner satisfactory to dentists who have acquired a high degree of excellence in the art of filling teeth.

During the process of manufacturing gold into foil, it is necessary frequently to subject it to the process of annealing, which consists, after it is reduced to leaves, in heating each leaf separately to a cherry-red heat, either over the flame of a spirit lamp, or on a plate of stone or metal, over a furnace. But in annealing gold foil, different methods are adopted by different manufacturers. See Gold Foil. In annealing gold during its preparation for plate, less nicety is required than during its preparation for foil, and simply consists in bringing the metal, after it has been cast into ingots, before it be planished, and also frequently during its lamination, to a cherry-red, by putting the gold upon charcoal or rather peats, which have a more equal and lively flame, and covering it quite up and taking care that the thin parts of the gold do not become hotter than the thick. When the gold has by this process acquired its proper heat as indicated by its color, it should be removed to hot ashes to cool, without coming in contact more than possible with the cold air, by which its temperature would be too suddenly changed. But gold and even silver are not so much affected by a sudden transition from heat to cold as are many of the other metals, yet it does, to some extent, increase their brittleness.

Why it is that the hammering and extension of metals increases their brittleness, has never been satisfactorily explained, but it is supposed to be owing to the destruction of the peculiar arrangement which the particles of the metal had, previously to being subjected to such operation. By annealing, the metal is softened, and the original arrangement of its particles seems to be restored.

AN'NULAR. *Annularis;* from *annulus*, a ring. Shaped like a ring.

Annular Bone. *Circulis osseus.* A circular bone, situated before the cavity of the tympanum in the fetus.

Annular Cartilage. The cricoid cartilage of the larynx is so called from its resemblance to a ring.

Annular Ligaments. A name given to certain ligamentous bands, as the *annular ligament* of the *radius*, which is of a fibro-cartilaginous structure, and which, with the lesser sigmoid cavity of the cubitus, forms a ring around the head of the radius; and the *annular ligaments* of the *carpus* and *tarsus*, to each of which there are two.

Annular Vein. The name of a vein situated between the annular, or ring finger, and little finger.

AN'NULARIS. The finger between the little and middle fingers is so called, because this is the one on which the wedding ring is worn.

AN'NULUS. A ring. In *Botany*, the name of the membrane which surrounds the stem of the fungi.

AN'NULUS ABDOMINIS. The abdominal ring.

ANOCHEILUM. The upper lip.

AN'ODYNE. *Anodynus;* from *a*, priv. and οδυνη, pain. A medicine which relieves pain; as opium and belladonna.

AN'ODYNUM MARTIALE. Ferum ammoniatum, precipitated from water by potassa.

ANODYNUM MINERALE. Potassæ nitras sulphatis paucillo mixtus.

ANOM'ALOUS. From α, priv. and νομος, a law. Irregularity, deviation from that which is natural. In *Medicine*, something unusual in the symptoms which properly belong to a disease. In *Odontology*, something unnatural in the conformation or growth of a tooth, or of the alveolar arches, and in *Dental Pathology*, in the phenomena of the diseases to which the teeth are liable.

ANOMALOTROPHIES. From αν, priv. ομαλος, regular, and τροφη, nourishment. Irregular nutrition of organs.

ANOMOCEPH'ALUS. From α, priv. νομος, rule, and κεφαλη, head. A deformed head.

ANOM'PHALOS. From αν, priv, ομφαλος, the navel. Without a navel.

ANON'YMOUS. From αν, priv. and ονομα, name. Without a name.

ANOPTHAL'MUS. *Anommatus;* from αν, priv. and οφθαλμος, an eye. A monster without eyes.

ANOP'SIA. From αν, priv. and οψ, the eye. A case of monstrosity, in which the eye and orbit are wanting.

ANOR'CHIDES. From αν, priv. and ορχις, a testicle. Such as are born without testicles are so termed.

ANOREX'IA. From αν, priv. and ορεξις, appetite. A want of appetite, without loathing of food.

ANOS'MIA. From α, priv, and οσμη, odor. Loss of the sense of smelling.

ANTAC'IDS. From *anti*, against, and *acida*, acids. Medicines which remove acidity in the stomach, as the carbonates of soda, magnesia, &c.

ANTAG'ONIST. *Antagonistas;* counter-acting. A name given to muscles which act in opposition to each other, as the flexors and extensors of a limb.

ANTAL'GIC. From αντι, against, and αλγος, pain. Medicines which relieve pain.

ANTAL'KALINE. From αντι, against, and *alkali*, an alcali. That which neutralizes alkalies.

ANTAPOD'OSIS. From αντιαποδιδωμι, I return in exchange. Succession and return of febrile paroxysms.

ANTECENDEN'TIA. The premonitory symptoms of disease.

ANTELA'BIA. From *ante*, before and *labia*, the lips. The extremity of the lips.

ANTEM'BASIS. From αντι, mutually, and εμβαινω, I enter. The mutual reception of bones.

ANTENEAS'MUS. From αντι, against, and τεινεσμος, implacable. A description of madness, in which the patient attempts his own life.

ANTE'RIOR. Before.

ATERIOR AU'RIS. The name of a muscle of the ear.

ANT'HELIX. Antihelix.

ANTHELMIN'TIC. *Anthelminticus;* from αντι, against, and ελμινς, a worm. A remedy for the destruction or expulsion of worms.

AN'THEMIS. From ανθεω, *floero;* because it bears an abundance of flowers. The chamomile.

ANTHEMIS COTULA. The systematic name of the plant called *cotula fœtida*. Mayweed, or stinking chamomile.

AN'THEMIS NOBILIS. The systematic name of the common chamomile.

ANTHEMIS PY'RETHRUM. The plant from which the pyrethrum is obtained. The Spanish chamomile, or pellitory of Spain.

ANTHE'RA. From ανθηρος, florid, so called from its having this color. The name of an ancient remedy, compounded of myrrh, sandarac, alum,

saffron, &c. Also, the male part of the fructification of plants.

AN'THORA. Ανθωρα, from αντι, against, and ωρα, monkshood; so called, because it is supposed to counteract the effects of monkshood. A species of wolfsbane.

ANTHRA'CIA. From ανθραξ, coal. Carbuncular exanthem. An eruption of imperfectly suppurating tumors, with indurated edges.

ANTHRACO'SIS. *Anthracia, carbo palpebrarum*, from ανθραξ, coal. A species of carbuncle, which attacks the eyelids and eyeballs.

ANTHRAKOK'ALI. From ανθραξ, coal, and *kali*, potassa. A remedy of recent introduction in the treatment of cutaneous diseases.

ANTHRAX. From ανθραξ, a coal. A hard, circumscribed, inflammatory tumor, resembling a boil, seated in the cellular membrane and skin on the back, which soon becomes gangrenous, and discharges an exceedingly fetid sanies.

ANTHROPOGRA'PHY. From ανθρωπος, a man, and γραφω, to write. A description of the human organism.

ANTHROPOL'OGY. *Anthropologia*, from ανθρωπος, a man, and λογος, a discourse. A treatise on man.

ANTHROPOM'ETRY. From ανθρωπος, a man, and μετρον, measure. A knowledge of the size of the different parts of the organism of man.

ANTHYPNOT'IC. *Anthypnoticus;* from αντι, against, and υπνωτικος, stupefying. A remedy against sleep or drowsiness.

ANTHYPOCHON'DRIAC. *Anthypochondriacus;* from αντι, against, and ὑποχονδρια, hypochondria. A remedy for hypochondriasis, or low-spiritedness.

ANTI. Αντι, against, opposed to, opposition. It is used as a prefix to many words, as antiodontalgic, opposed to, or remedy for odontalgia or toothache; antiscorbutic, or remedy for scorbutus.

ANTIAG'RA. From αντιας, a tonsil, and αγρα, a prey. A swelling of the tonsils.

ANTIARTHRIT'IC. *Antiarthriticus;* from αντι, against, and αρθριτις, the gout. A remedy for the gout.

ANTIASTHMAT'IC. *Antiasthmaticus;* from αντι, against, and ασθμα, asthma. A remedy for the asthma.

ANTIATROPHIC. *Antiatrophicus;* from αντι, against, and ατροφια, an atrophy. A remedy for atrophy or wasting away.

ANTIBRA'CHIAL APONEURO'SIS. A portion of the aponeurotic sheath, which envelops the whole of the upper limb, is so termed.

ANTICACHEC'TIC. *Anticachecticus;* from αντι, against, and χαχεξια, a cachexy. A remedy for cachexy or a bad habit of body.

ANTICAN'CEROUS. *Anticancerosus*, from αντι, against, and καρκινωμα, cancer. Opposed to cancer.

ANTICAR'DIUM. From αντι, against, and καρδια, the heart. The scrobiculus cordis, or pit of the stomach.

ANTICATARRH'AL. *Anticatarrhalis;* from αντι, against, and καταρρος, a catarrh. Opposed to, or a remedy for, catarrh.

ANTICOL'IC. From αντι, against, and κωλικος, the colic. A remedy for the colic.

ANTIDIARRHŒ'IC. A remedy for diarrhœa.

ANTIDI'NIC. From αντι, against, and δινος, vertigo. Medicines used against vertigo.

AN'TIDOTE. *Antidotum*, from αντι, against, and διδωμι, I give. A remedy for combating or counteracting the effects of poison.

ANTIDYSENTER'IC. *Antidystericus*, from αντι, against, and δυσεντερια, a flux. Opposed to, or remedy for, dysentery.

ANTIEMET'IC. *Antiemeticus*, from αντι, against, and εμεω, to vomit. That which prevents vomiting.

ANTIEPHIAL'TIC. *Antiephialticus*, from αντι, against, and εφιαλτης,

the nightmare. That which is opposed to nightmare.

ANTIEPILEP'TIC. *Antiepilepticus*, from αντι, against, and επιληψια, the epilepsy. That which is opposed to epilepsy.

ANTIFEBRILE. *Antifebrilis;* from αντι, against, and *febris*, a fever. A febrifuge, or that which opposes fever.

ANTIHEC'TIC. *Antihecticus;* from αντι, against, εκτικος, hectic fever. A remedy for hectic fever.

ANTIHELIX. From αντι, against, and ελιξ, the helix. The inner circle of the ear is so named from its opposition to the outer, which is called the helix.

ANTIHEMORRHOID'AL. *Antihemorrhoidalis;* from αντι, against, and αιμορροιδες, hemorrhoids. Opposed to hemorrhoids.

ANTIHERPET'IC. *Antiherpeticus;* from αντι, against, and ερπες, herpes. That which is opposed to herpes.

ANTIHYDROPHOB'IC. *Antihydrophobicus;* from αντι, against, υδωρ, water, and φοβος, dread. Opposed to hydrophobia.

ANTIHYDROP'IC. *Antihydropicus;* from αντι, against, and υδρωψ, dropsy. A remedy for dropsy.

ANTI-ICTERIC. From αντι, against, and ικτερος, jaundice. A remedy against jaundice.

ANTILITH'ICS. *Antilithica;* from αντι, against, λιθος, a stone. A medicine to prevent the formation of urinary calculi.

ANTILO'BIUM. From αντι, against, and λοβος, the bottom of the ear. That part of the ear which is opposite the lobe.

ANTILOI'MIC. *Antiloimicus;* from αντι, against, and λοιμος, the plague. Opposed to the plague.

ANTIMO'NIAL. *Antimonialis;* from *antimonium*, antimony. A preparation in which antimony is an ingredient.

ANTIMONIAL POWDER. A peroxyd of antimony combined with phosphate of lime.

ANTIMONIALE CAUSTICUM. Antimonium muriatum.

ANTIMONII ET POTASSÆ TARTRAS. Tartrate of antimony and potash.

ANTIMONII OXYDUM. Oxyd of antimony.

ANTIMONII SULPHURE'TUM PRÆCIPITA'TUM. Precipitated sulphuret of antimony.

ANTIMONII SULPHURE'TUM RUBRUM. Red sulphuret of antimony.

ANTIMONII TARTARIZATI VINUM. Wine of tartarized antimony.

ANTIMONII VITRUM. Glass of antimony.

ANTIMO'NIUM. Antimony.

ANTIMONIUM DIAPHORET'ICUM. An oxyd of antimony.

ANTIMONY. From αντι, against, and μονος, alone, because it is not found alone; or according to others, from αντι, against, and *moine*, a monk, because as some affirm, Valentine, by a careless administration of it, poisoned his brother monks. Antimony is a heavy, solid, brittle metallic substance, seldom found in a pure state. It has a metallic lustre, and a lead-gray color, inclining to a steel-gray.

ANTINEPHRIT'IC. *Antinephriticus;* from αντι, against, and νεφριτις, a disease of the kidneys. A remedy for inflammation of the kidney.

ANTIODONTAL'GIC. *Antiodontalgicus;* from αντι, against and οδονταλγια, tooth-ache. See Odontalgia.

ANTIODONTAL'GICUS. The name of an insect, so called from its supposed antiodontalgic properties. It is described by Germi, in a work published at Florence, 1794. It is a sort of curculio, found on a species of thistle, *carduus spinosissimus*. The manner recommended for using these insects is, to rub a number of them between the thumb and fore-finger, until they lose their moisture and then to touch the decayed part of the painful tooth. In some instances it was said to have produced immediate relief, except when the gums around it were inflamed, in which case, it failed to produce the desired effect. Other insects are also said to possess the proper-

ty of relieving the tooth-ache, as the *scarabeus ferrugineus* of Fabricius; the *coccinella septempunctata*, or lady-bird; the *chrysomela populi*, &c. These insects, at one time, were quite popular as a remedy for tooth-ache in Germany, but their anti-odontalgic virtues have not proved so great as represented by those who recommended them, and to be realized, in any sensible degree, requires a larger amount of credulity than most persons possess, consequently, they have fallen into disrepute. It is possible, by exciting the gum, they might sometimes procure temporary relief.

ANTIPARALYT'IC. *Antiparalyticus;* from αντι, against, and παραλυσις, the palsy. Opposed to palsy.

ANTIPATHY. *Antipathia;* from αντι, against, and παθος, passion, affection. Aversion to particular objects or things.

ANTIPERISTAL'TIC. *Antiperistalticus;* from αντι, against, and περιστελλω, I compress or contract. Any thing which obstructs the peristaltic motion of the intestinal tube.

ANTIPHAR'MIC. *Antipharmicus;* from αντι, against, and φαρμακον, a poison. Preservatives against, or remedies for, poison. A counter-poison.

ANTIPHLOGIS'TIC. *Antiphlogisticus;* from αντι, against, and φλεγω, I burn. That which opposes inflammation.

ANTIPHTHIS'ICAL. *Antiphthisicus;* from αντι, against, and φθισις, consumption. Opposed to consumption.

ANTIPHYS'IC. *Antiphysicus;* from αντι against, and φυσαω, to blow. A carminative or remedy against flatulence.

ANTIPLEURIT'IC. *Antipleuriticus;* from αντι, against, and πλευριτις, pleurisy. A remedy against pleurisy.

ANTIPODAG'RIC. *Antipodagricus;* from αντι, against, and ποδαγρα, the gout. Opposed to the gout.

ANTIPRAX'IS. From αντι, against, and πρασσω, I work. A contrary state of different parts in the same individual.

ANTIPYRET'IC. *Antipyreticus;* from αντι, against, and πυρετος, fever. Opposed to fever; a febrifuge.

ANTIQUARTANA'RIUM. From αντι, against, and *quartana*, a quartan fever. A remedy for quartan fever.

ANTIRHACHIT'IC. *Antirhachiticus;* from αντι, against, and *rachitis*, the rickets. Opposed to the rickets.

ANTIRHI'NUM ELATI'NE. The systematic name of the plant called fluellen, or female speedwell. The elatine of the shops.

ANTIRHINUM LINA'RIA. The common toad flax, a perennial indigenous plant.

ANTISCOL'IC. *Antiscolicus;* from αντι, against, and σκωληξ, a worm. Opposed to worms. Anthelmintic.

ANTISCORBU'TIC. *Antiscorbuticus;* from αντι, against, and scorbutus, the scurvy. Remedies for the scurvy.

ANTISCROF'ULOUS. *Antistrumosus.* Opposed to scrofula.

ANTISEP'TIC. *Antisepticus;* from αντι, against, and σηπω, to putrefy. That which is opposed to putrefaction.

ANTISPASMOD'IC. *Antispasmodicus;* from αντι, against, and σπασμος, a spasm. That which possesses the power of allaying or removing spasms.

ANTIS'TRUMOSUS. Antiscrofulous.

ANTI'THENAR. Adductor pollices pedis, a muscle of the foot.

ANTITRAG'ICUS. *Antitragus;* a small muscle of the ear.

ANTITRAG'US. From αντι, against, and τραγος, the tragus. An eminence opposite the tragus of the outer ear.

ANTIVENE'REAL. From αντι, against, and *venereus*, venereal. A remedy for the venereal disease.

ANTODONTAL'GIC. See Antiodontalgic.

ANTO'NII SANCTI IGNIS. St. Anthony's fire. Erysipelas.

AN'TRUM. A cave or cavern. A cavity which has a small opening into it.

AN'TRUM AURIS. The cochlea of the ear.

ANTRUM DENTALE. The pulp cavity of a tooth. See Dental Cavity.

ANTRUM HIGHMORIANUM. Antrum of Highmore, called so, after the name of the anatomist who gave the first correct description of it. See Maxillary Sinus.

ANTRUM MAXILLARE. Maxillary sinus.

ANTRUM PYLORI. A cavity of the stomach near the pylorus.

ANUS. The opening at the inferior extremity of the rectum. The term anus is also applied to an opening of the third ventricle of the brain which communicates with the fourth.

ANUS, ARTIFICIAL. An artificial opening, made to supply the natural anus.

ANUS, IMPERFORATE. A malformation in which the anus is wanting. Imperforation of the anus.

AN'VIL. A mass of iron with one smooth surface, on which metals are hammered and shaped. It is used by smiths, jewellers and mechanical dentists.

AN'VILED. Shaped or wrought on an anvil.

ANXI'ETY. Restlessness; agitation; general indisposition, with a distressing sense of oppression about the epigastric region.

AOCHLE'SIA. From *a*, priv. and οχλος, disturbance. Calmness; tranquillity.

AOR'TA. From αηρ, air, and τηρεω, I keep, because it was supposed by the ancients that only air was kept in it. The great trunk of the arterial system. It arises from the left ventricle of the heart, passes upward, forms a curve and descends in front, but rather on the left side of the spine, into the abdomen.

AORTI'TIS. From *aorta*, and *itis*. Inflammation of the aorta.

AO'TUS. From *a*, priv. and ους, an ear. A monster without ears.

APALOT'ICA. From απαλοτης, softness, tenderness. Accidental lesions, or deformities of soft parts.

APARI'NE. From ρινη, a file, so called, because its bark is rough like a file. Galium aparine, or goose-grass.

APARTHRO'SIS. From απο, and αρθρον, a joint. Diarthrosis.

APEL'LA. From *a*, priv. and *pellis*, skin. Shortness of the prepuce.

APE'RIENT. *Aperiens;* from *aperire*, to open. A medicine which gently opens the bowels.

APERTOR OCULI. The levator palpebræ superioris.

APEX. The point or extremity of a part, as the apex of the tongue, nose, root of a tooth, &c.

APHELX'IA. From αφελκω, I separate or abstract. A disease which induces absence or abstraction of mind.

APH'ESIS. From αφιημι, I relax. The remission or cessation of a disease.

APHO'NIA. From *a*, priv. and φωνη, the voice. A loss or privation of voice.

APH'ORISM. *Aphorismus;* from αφοριζω, to distinguish. A principle or maxim set forth in few words, or in a short sentence.

APHTHÆ. From απτω, I inflame. A disease which consists of roundish, pearl-colored ulcers or vesicles upon the tongue, gums, inner walls of the mouth, sometimes extending through the whole of the alimentary canal, and generally terminating in curd-like sloughs.

Aphthous ulcers are supposed by professor Wood, to be the result of vesicular eruption of the mouth, and in treating of the disease, he says, "The vesicle is small, oval or roundish, white or pearl-colored, and consists of a transparent serous fluid under the elevated epitheleum. In a few days the epitheleum breaks, the serum escapes, and a small ulcer forms, more or less painful, with a whitish bottom, and usually a red circle of inflammation around it. The vesicles are sometimes distinct and scattered, sometimes numerous and confluent. The distinct variety, though painful, is a light affection, continuing in general only a few days or a week, and is usually confined

to the mouth. It produces little or no constitutional disorder, though it may be associated with fever and gastric irritation as an effect. It attacks equally children and adults; but it is said not to be very common in early infancy. In adults it is frequently occasioned by the irritation of decayed teeth. The confluent variety is much more severe and obstinate. This frequently extends to the fauces and pharynx, and is even said to reach the intestinal canal, though it may be doubted whether the affection of the stomach and bowels is identical with that of the mouth. When it occupies the fauces, it renders deglutition painful. It is, sometimes, attended with gastric uneasiness, vomiting, and intestinal pains, and diarrhœa. Fever occasionally precedes it, and moderates without entirely ceasing upon the appearance of the eruption. The fever sometimes assumes a typhoid character." The cause of the disease is obscure, though it is, probably, dependent upon a vitiated state of the humors of the body and acidity of the gastric juices.

In the treatment of the disease, professor Wood says, "Magnesia may be given to correct acidity, and the diet regulated by the state of the stomach. In the severer cases, fever should be obviated by refrigerent cathartics and diaphoretics, and by a liquid farinaceous or demulcent diet. When the disease attacks the fauces or pharynx, occasions painful swallowing, and is attended with much fever and a strong pulse, general bleeding may become necessary, and, subsequently, the application of leeches to the throat. Diarrhœa must be counteracted by the usual remedies calculated to relieve intestinal irritation, among which may be mentioned as especially useful, emollient applications to the abdomen, and the warm bath. When the fever assumes the typhoid form, a tonic and supporting treatment may be required.

"In the early stages, the local treatment should consist of demulcent applications, as flaxseed tea, mucilage of gum arabic, or almond emulsion, with or without a little laudanum, or some preparation of morphia. But after the inflammation has somewhat subsided, and ulcers are left indisposed to heal, astringent washes may be resorted to. Solutions of acetate of lead, sulphate of zinc, and alum; water acidulated with sulphuric or muriatic acid, and sweetened with the honey of roses; and various vegetable astringent and tonic infusions have been recommended. The author usually employs a strong solution of sulphate of zinc, in the proportion of fifteen or twenty grains to the ounce of water; which he applies by means of a camel's-hair pencil, exclusively to the ulcers, with the almost uniform effect of disposing them to heal; and, even in the eruptive stage, this application will often be found to effect an almost immediate cure." Professor Dungleson recommends touching the ulcers with the nitrate of silver. He has found it the most effectual remedy. The sulphate of copper might also be used in the same way with advantage.

When it occurs in females during lactation, weaning the child will often be found necessary. In obstinate cases, the author last mentioned recommends a change of the physical influences to which the patient is subjected, by travelling, exercise, &c.

APH'THOUS. Relating to aphthæ.

APHYL'LUS. From *a*, priv. and φυλλον, a leaf. Leafless. A plant without leaves.

APIS. The name of a genus of insects. The bee.

Apis Mellif'ica. The honey-bee.

A'PIUM GRAV'EOLENS. The pharmacopœial name of the herb smallage.

Apium Petroseli'num. The pharmacopœial name of the common parsley.

APIUS. The name of an author of a Latin Dissertation upon Difficult

Dentition in Children, published 1751, at Ellangiæ.

APLO'ME. The name of a very rare mineral. A variety of crystallized garnet.

APLONÆ. A mineral supposed to be a variety of garnet; it is of a deep orange-brown color.

APNEUSTIA. Apnœa.

APNŒ'A. From *a*, priv. and πνεω, I respire. Difficult respiration.

APOCENO'SIS. From απο, out, and κενοω, to evacuate. A morbid flux.

APO'COPE. From απο, and κοπτω, to cut from. In *Medicine*, the cutting off of a part. Abscission.

APOLEP'SIS. From απο, and λαμβανω, to take from. A suppression or retention of any of the natural evacuations.

APOLEX'IS. From αποληγω, I cease. Old age; decrepitude.

APOM'ELI. From απο, from, and μελι, honey. An oxymel, or decoction made of honey.

APOMYLE'NAS. From απομυλλαινω, I make a wry mouth. Projection of the lips by pressing them against each other; sometimes a symptom of disease.

APONEURO'SIS. From απο, and νευρον, a nerve. A tendonous expansion, but the ancients regarding every white part as a nerve, supposed an aponeurosis to be a nervous expansion, and, hence, gave it that name.

APONEUROT'IC. Relating to aponeuroses.

APO'NIA. From a, priv. and πονος, pain. Without pain.

APOPEDA'SIS. From απο, and πηδαω, to jump from. A luxation.

APOPHLEGMA'SIA. From απο, and φλεγμα, phlegm. A discharge of mucus.

APOPHLEGMAT'IC. *Apophlegmaticus*; from απο, and φλεγμα, phlegm. *Apophlegmatizantia*. Medicines which excite mucous secretions from the mouth and nose.

APOPHYLLITE. A crystallized mineral, composed of silex, potassa and water.

APOPH'YSIS. From αποφυω, to proceed from. In *Anatomy*, a projection, or process of a bone. In *Botany*, the enlarged base of the capsule adhering to the frondose mosses.

APOPLEC'TIC. From αποπληξια, apoplexy. Belonging to apoplexy.

AP'OPLEXY. *Apoplexia*; from απο, and πλησσω, to strike or knock down; because when a person is attacked by this disease, he suddenly falls down. A disease characterised by a sudden loss of sense, motion, and stertorous breathing. The term is used by some to denote a sudden effusion of blood into the substance of organs or tissues, but it is usually restricted to the brain, and the above are among the phenomena which characterise cerebral apoplexy.

APOPNIX'IS. From αποπνιγω, to suffocate. Suffocation.

APOPTO'SIS. From αποπιπτω, to fall down. The falling down of any part from relaxation; the relaxation of bandages.

APO'RIA. From *a*, priv. and πορος, a duct. Restlessness caused by the stoppage of any of the natural secretions.

APOSI'TIA. From απο, from, and σιτος, food. Aversion to food.

APOSPAS'MA. From αποσπαω, to tear off. A violent severance of a ligament or tendon.

APOSPHACELE'SIS. Mortification resulting from bandaging wounds and fractures too tightly.

APOSTE'MA. From απο, from, and ιστημι, I settle, or from, αφιστημι, I recede. A term used by the ancients to denote abscesses in general.

APOTHE'CA. From αποτιθημι, to place. A place where medicines are kept.

APOTH'ECARY. *Apothecarius*; from απο, and τιθημι, *pono*, to put; so called, because his employ is to prepare and keep the various articles of medicine, and to compound them for the physician's use. In every country except Great Britain, one who sells drugs,

and puts up prescriptions. In addition to this, apothecaries in England exercise in certain cases, and under certain restrictions, the duties of the physician.

APPARA'TUS. From *appareo*, to appear, or be ready at hand. A collection of instruments or means for any business or operation whatever. The term is also applied to the different methods of operating for the stone, and in *Anatomy*, to a collection of organs which work for the accomplishment of the same end, or a system of organs formed of a similar texture, or that have analogous functions.

Apparatus, Dental. See Dental Apparatus.

Apparatus, Pneumatic. Instruments by which æriform fluids may, in distillations, solutions, and other operations, be caught, collected, and properly managed.

APPAREIL. Apparatus.

APPENDI'CULA. A small appendage.

Appendicula Cæci Vermiformis. A vermicular process, about four inches long, of the size of a goose-quill, which hangs from the intestinum cœcum of the human body.

Appendiculæ Epiploicæ. The adipose appendices of the colon and rectum, which are filled with adipose matter.

APPENDICULA'TUS. A term applied to leaves, leaf-stalks, &c., that are furnished with an additional organ for some purpose not essential to it.

APPEN'DIX. An appendage; something appended. Any part which adheres to an organ or is continuous with it,

AP'PETITE. From *appetere, (ad* and *petere,)* to desire. An internal desire, which warns us of the necessity of exerting our digestion or generative functions; a relish for food; a desire for sensual pleasures.

APPLE, ADAM'S. See Pomum Adami.

APPLICA'TION. *Applicatio;* from *applicare*, to apply. In *Therapeutics*, external remedies, as opposed to medicines designed to be given internally.

APPOSI'TION. Adding to, sitting to, addition, accretion. In *Dental Prosthesis*, it is sometimes employed synonymously with coaptation.

APTYS'TOS. From α, priv. and πτυω, I spit. Without expectoration.

APYRET'IC. *Apyreticus;* from α, priv. and πυρ, fire, Without fever. A word applied to those days in which there is no paroxysms of disease.

APYREX'IA. From α, priv. and πυρεξια, fever. Absence of fever. Intermission between the febrile paroxysms.

A'QUA. Water.

Aqua Acidi Carbonici. Carbonic acid water. Artificial seltzer water.

Aqua Amygdala'rum Concentra'ta. Water of bitter almonds.

Aqua Anethi. Dill water.

Aqua Brocchiari. A supposed styptic, which at one time attracted considerable attention in France, but which is said to possess no efficacy.

Aqua Calcis. Lime water.

Aqua Camphoræ. Camphor water.

Aqua Carui. Caraway water.

Aqua Cassiæ. Water of cassia.

Aqua Chlorinii. Chlorine water.

Aqua Cinnamomi. Cinnamon water.

Aqua Distillata. Distilled water.

Aqua Florum Auranth. Orange flower water.

Aqua Fortis. Weak and impure nitric acid.

Aqua Fœniculi. Fennel water.

Aqua Lauro-cerasi. Cherry-laurel water.

Aqua Marine. Beryl.

Aqua Methæ Piperitæ. Peppermint water.

Aqua Menthæ Pulegii. Penny-royal water.

Aqua Menthæ Viridis. Spearmint water.

Aqua Picis Liquidæ. Tar water.

Aqua Pimentæ. Pimento water.

Aqua Regia A mixture of nitric and muriatic acids.

Aqua Rosæ. Rose water.

Aqua Sambuci. Elder water.

Aqua Styptica. A powerful astringent, composed of sulphate of copper, sulphate of alum, and sulphuric acid.

Aqua Vitæ. Brandy.

Aquæ Distillatæ. Distilled waters, made by putting mint, penny-royal, &c., into a still with water, and drawing off as much as are impregnated with the properties of the plants.

Aquæ Minerales. Mineral waters.

Aquæ Stillati'tiæ Simplices. Simple distilled waters.

Aquæ Stillatitiæ Spirituosæ. Spirituous distilled waters.

AQUÆDUCT. *Aquæductus.* A canal or duct, so called because it was supposed to carry water.

Aquæduct of Fallopius. A canal in the petrous portion of the temporal bone, first accurately described by Fallopius.

Aquæduct of Sylvius. A canal communicating between the third and fourth ventricles of the brain.

Aquæduc'tus Cerebri. See Infundibulum of the Brain.

Aquæductus Coch'leæ. A narrow canal proceeding from the tympanic scala of the cochlea, to the posterior edge of the *pars petrosa.*

Aqueductus Vestib'uli. A canal proceeding from the vestibule near the common orifice of the two semicircular canals, and opening at the posterior surface of the *pars petrosa.*

AQUEOUS. Watery.

Aqueous Humor of the Eye. The limpid fluid which fills both chambers of the eye.

Aquetta. The name of a poison used by the Roman women, under the Pontificate of Alexander VII.

AQUIFO'LIUM. From *acus*, a needle, and *folium*, a leaf; so called, because it has a prickly leaf. Ilex aquifolium. Holly.

AQUILA. Αετος, the eagle. An alchemical name for sal ammoniac, mercurius precipitatus, arsenic, sulphur, and the philosopher's stone.

Aquila Alba. One of the names by which calomel was designated among the ancients. See Hydrargyri Submureas.

Aquila Alba Philosophorum.—*Aquila alba ganymodis.* Sublimated sal ammoniac.

Aquila Cœlestis. A panacea, or universal cure; of which mercury was a constituent.

Aquila Veneris. An ancient preparation made of verdigris, and sublimated sal ammoniac.

Aquilæ Lignum. Eagle-wood. See Lignum Aloes.

Aquilæ Venæ. The temporal veins.

AQUILE'GIA VULGA'RIS. The systematic name of the common columbine.

AQUU'LA. Diminutive of *aqua.* A small quantity of limpid water. It is applied to the small portion of pellucid water that distends the capsule of the crystalline lens, and the lens itself.

A'RACA MIRA. A shrub found in the Brazils, the roots of which are said to be diuretic and anti-dysenteric.

ARACH'NOID MEMBRANE.—*Membrana arachnoides;* arachnoides; from αραχνη, a spider, and ειδος, likeness, from its resemblance to a spider's web. The name of a thin membrane, without vessels and nerves, between the the dura and pia mater, and surrounding the cerebrum, cerebellum, medulla oblongata and medulla spinalis. The term has, also, been applied to the tunic of the crystalline lens and vitreous humor of the eye.

ARAC. The name of an East Indian spirituous liquor.

ARÆO'TICA. From αραιοω, to rarefy. Medicines supposed to possesss the quality of rarefying the fluids of the body.

ARA'LIA. From *ara*, a bank in the sea, because it is found on banks near the sea. The berry bearing angelica.

ARBOR. A tree. In *Botany*, it signifies a plant having but one trunk, which rises to a great height, is durable, woody, and divided at its top into

many branches which do not perish in winter. In *Anatomy*, the word is applied to parts which ramify like a tree, as the arbor vitæ of the cerebellum; and in *Chemistry* it is applied to crystallizations, which ramify like the branches of a tree.

AR'BUTUS UVA URSI. Uva ursi; bear's berry; bear's whortle-berry; bear's whorts, or bear's bilberries.

Arc. From *arcus;* an arch. Arch. See Arches, Alveolar.

AR'CA ARCANORUM. The mercury of the philosophers.

Arca Cordis. The pericardium.

ARCA'NUM. A secret. A nostrum, the preparation of which is kept a secret to enhance its supposed value.

Arcanum Duplex. *Arcanum duplicatum;* a name formerly given to sulphate of potassa.

Arcanum Tartari. Acetate of potassa.

ARCH, ANASTOMO'TIC. The union of two vessels, which anastamose by describing a curved line.

ARCHES, ALVEOLAR. See Alveolar Arches.

ARCHES, DENTAL. See Dental Arches.

ARCHÆ'US. *Archeus;* from αρχη, commencement. A word adopted by Van Helmont, and used to designate the active principle of the material world. This universal archæus, according to Van Helmont, is an immaterial principle, which exists in the seed prior to fecundation, and presides over the growth and development of the body, and over all organic phenomena.

ARCHE. From αρχη, the beginning. The beginning or first manifestations of a disease.

ARCTA'TIO. From *arcto*, I make narrow. Contraction of a natural opening, as of a canal. A constipation of the intestines from inflammation.

ARC'TIUM LAPPA. Clit-bur, or common burdock.

Arctizite. The foliated scapolite.

ARCTU'RA. From *arcto*, I straighten. Inflammation of the finger caused by a nail grown into the flesh.

ARCUA'TIO. From *arcus*, a bow. An anterior gibbosity of the sternum.

ARCULÆ. A diminutive of *arca*, a chest. The orbits of the eyes.

ARDENT. *Ardens;* from *ardere*, to burn. Burning or ardent fever.

ARDOR. From *ardere*, to burn. A burning heat.

Ardor Febrilis. Feverish heat.

Ardor Urinæ. A scalding sensation produced by the urine in the urethra.

Ardor Ventriculi. Heartburn.

ARE'CA. The name of a genus of palms.

Areca Catechu. *Areca Indica.* From the nut of this plant two kinds of catechu are extracted, the *cuttacamboo* and *cashcutti.*

Areca Oleracea. *Areca Americana.* The cabbage-tree palm.

AREFAC'TION. The process of drying substances previously to pulverizing them.

ARENAMEN. Armenian bole.

ARENA'TIO. From *arena*, sand. A sand bath, or the application of hot sand to the body.

ARE'OLA. A diminutive of *area*, a void space. The brown circle which surrounds the nipples of females.

AREOM'ETER. An instrument for ascertaining the specific gravity of fluids lighter than water.

AR'GEMA. From αργος, white. A small white ulcer of the eye.

ARGEN'TI NITRAS. *Argentum nitratum; causticum lunare.* Nitrate of silver.

ARGEN'TUM. *Argyrus;* from αργος, white; because it is of a white color. Silver.

Argentum Folia'tum. Silver leaf. This, when not too thin, is sometimes used for filling teeth, but in consequence of its hardness and great liability to be acted upon by the secretions of the mouth, it should never be employed for this purpose. Tin is, by far, preferable.

ARGENTUM NITRATUM. Nitrate of silver.

ARGIL'LA. From αργος, white. Argil; white clay. See Alumina.

ARGILLA PURA. Pure argil, or alumina.

ARGILLA'CEOUS. Of, or belonging to argilla, or aluminous earth.

ARGILLACEOUS TOOTH POLISHER. See Tooth Polisher, Argillaceous.

ARGILOLITE. Clay-stone.

ARHEUMATIS'TOS. From α, neg. and ρευματιζω, to be afflicted with rheums. Without rheums or gout.

ARIL'LUS. From *arère*, to be dry or parched. The tunic of the permanent husk investing a seed, which falls off spontaneously as it becomes dry.

ARISTALTHÆ'A. *Althæa*. The common marsh-mallow.

ARISTOLOCHI'A. From αριστος, good, and λοχια, or λοχεια, parturition; because it was supposed to aid in parturition. Birthwort.

ARISTOLOCHIA ANGUICIDA. The snake-killing birthwort.

ARISTOLOCHIA CLEMATITIS. *Aristilochia vulgaris*. Upright birthwort.

ARISTOLOCHIA FABACEA. Fumarea bulbosa.

ARISTOLOCHIA LONGA and ARISTOLOCHIA ROTUNDA. The long and round birthwort.

ARISTOLOCHIA SERPENTA'RIA. Virginia snake-root, or snake-root birthwort.

ARISTOLOCHIA TRILOBATA. Three-lobed birthwort.

ARME. From αρω, I adapt. Any mechanical or natural union of parts.

ARMENIAN STONE. Calcareous substances penetrated by the azure carbonate of copper. A variety of the azure carbonate of copper.

ARMILLÆ MANUS MEMBRANOSÆ. The annular ligament of the carpus.

ARMORA'CIA. See Cochlearia Armoracia.

AR'NICA MONTA'NA. The systematic name for the arnica of the pharmacopœias.

ARNICA SPURIA. Inula dysenterica.

ARO'MA. Αρωμα, perfume, from αρι, intensely, and οζω, to smell. *Spiritis rector*. The odorous part of plants and other substances.

AROMAT'IC. *Aromaticus*, from αρωμα, an odor. Any thing which has a grateful spicy scent, and an agreeable pungent taste, as cinnamon, ginger, cardamoms, mint, &c.

AROMATOPO'LA. From αρωμα, an odor, and πωλεω, I sell. One who sells drugs and spices.

ARRACHEMENT. From *arracher;* to tear out. The separation of a part of the body, tearing it from the part with which it was connected. The term is sometimes applied to the extraction of a tooth.

ARRACK. Arack.

ARRAGONITE. A mineral of a greenish pearly-gray color.

AR'RAPHON. From α, priv. and ραφη, a suture. Without suture. A term applied to the cranium when it has no sutures.

ARRHÆ'A. From α, priv. and ρεω, I flow. The suppression of any natural flux. Amenorrhœa.

ARRIERE-DENT. *Dens serotinus*. A wisdom tooth.

ARROW ROOT. The fecula of the root of the maranta arundinacea, a plant which grows in the West Indies. See Maranta.

ARSEN'IATE. From *arsenicum*, arsenic. A salt formed by a combination of arsenic acid with salifiable bases, as arseniate of ammonia, &c.

ARSENIC. *Arsenicum*. The name of a metal of a blackish or steel-gray color. It is found native in a state of oxyd, and also combined with sulphur, under the improper name of yellow and red arsenic. Arsenic and its various preparations, are the most active of all poisons.

ARSENIC ACID. *Acidum arsenicum*.

ARSENIC, OXYD OF. White arsenic. Arsenious acid.

ARSENIC, WHITE. Oxyd of arsenic, or arsenious acid.

ARSENICAL CAUSTIC. A preparation composed of two parts of levigated antimony and one of white arsenic.

ARSENICUM ALBUM. White arsenic.

ARSE'NIOUS ACID. White arsenic. Oxyd of arsenic. Ratsbane.

This powerful agent has been extensively employed, both in America and Europe, during the last few years, for destroying the pulps of decayed teeth, but in consequence of the great liability of a tooth, after the destruction of its lining membrane, to give rise to inflammation of the alveolo-dental membrane, and abscess, the practice is rapidly falling into disrepute. Dr. Maynard of Washington city, however, has proposed a plan of treatment, by which it is thought these effects may, in the majority of cases, be prevented. See Filling Teeth.

Dr. Spooner, of Montreal, was the first to use arsenious acid for the destruction of an exposed dental pulp, but the discovery was first made known to the dental profession, by his brother, Dr. S. Spooner, of New York, through the medium of a popular treatise on the teeth, published in 1836.

The application of a fortieth or fiftieth part of a grain, with an equal quantity of the sulphate of morphia, to an exposed dental pulp, will destroy its vitality in from three to seven hours, and often without causing any unpleasant sensation, but in most instances, it is productive of more or less pain. It should always be used with great care, to prevent it from coming in contact with the mucous membrane of the mouth, or from becoming displaced, and being swallowed. To prevent any accident of this sort, the cavity in the tooth should be tightly and securely sealed up with yellow or white wax.

ART. The application of a system of rules to the performance of certain actions.

Art, Healing. The application of the rules of medicine in the treatment of disease.

Art, Dental. The application of the rules of dental surgery, to the treatment of the diseases of the teeth, and the replacement of the loss of these organs.

ARTEMIS'IA. So called because it was first used by a queen of that name, or from Αρτεμις, Diana, because it was formerly employed in the diseases of women, over whom she presided. Also the name of a genus of plants.

Artemisia Abrot'anum. *Abrotanum.* Common southernwood.

Artemisia Absin'thium. *Absinthium. vulgare.* Common wormwood.

Artemisia Chinensis. *Moxa japonica.* Mugwort of China.

Artemisia Glacia'lis. Mountain wormwood.

Artemisia Judaica. *Santonicum.* See Artemisia Santonica.

Artemisia Marit'ima. *Absinthium maritimum.* Sea wormwood.

Artemisia Pon'tica. *Absinthium ponticum.* Roman wormwood.

Artemisia Rupes'tris. Creeping wormwood.

Artemisia Santon'ica. The Tartarian southernwood, or wormseed.

Artemisia Vulga'ris. Mugwort.

ARTERIA. From αηρ, air, and τηρειν, to keep, because it was supposed by the ancients that they contained air. See Artery.

ARTE'RIAC. A medicine formerly prescribed for diseases of the trachea.

ARTE'RIÆ ADIPO'SÆ. The arteries which secrete the fat about the kidneys.

ARTE'RIAL. *Arteriosus;* Belonging to the arteries.

Arterial Blood. The red blood is so called, because it is contained in the arteries. The pulmonary veins also contain red blood, and on which account have been called arterial veins.

Arterial System. All of the arteries of the body.

ARTERIOG'RAPHY. *Arteriographia;* from αρτηρια, artery, and γραφη, a description. A description of the arteries.

ARTERIOLA. A small artery.

ARTERIOL'OGY. *Arteriologia;* from αρτηρια, artery, and λογος a discourse. A treatise on the arteries.

ARTERIOSTEIE. From αρτηρια, artery, and οστεον, a bone. Ossification of an artery.

ARTERIOT'OMY. *Arteriotomia;* from αρτηρια, an artery, and τεμνω, I cut. The opening of an artery to draw blood.

ARTERI'TIS. From αρτηρια, an artery, and *itis*, inflammation. Inflammation of an artery.

AR'TERY. *Arteria.* A firm and elastic cylindrical tube, composed of three membranes, a common or external, a muscular, and an internal, for conveying the blood from the heart. There are but two main arteries, the pulmonary and the aorta; all the rest are branches. The first originates from the right ventricle of the heart, and the second from the left. It is by means of the arteries that the blood is conveyed to every part of the body. The pulsation of the arteries corresponds with that of the heart.

The principal arteries of the body are mentioned in the following table:

TABLE OF THE ARTERIES.

1. The *pulmonary artery.*

The pulmonary artery, soon after emerging from the right ventricle of the heart, divides into two branches, a right and a left, which are distributed to the lungs.

2. The *aorta.*

The aorta arises from the left ventricle of the heart, and is the great trunk from which the other arteries of the body are derived. These are given off in the following order. At its origin it gives off,

1. The *anterior cardiac,* or *right coronary artery.*

2. The *posterior cardiac,* or *left coronary artery.* At the arch it gives off three branches,

1. The *arteria innominata,* which divides into the *right carotid* and *right subclavian.*

2. The *left carotid.*

3. The *left subclavian.*

The carotids are divided into *external* and *internal.*

The external gives off,

1. The *superior thyroid.*
2. The *lingual.*
3. The *labial* or *facial.*
4. The *inferior pharyngeal.*
5. The *occipital.*
6. The *posterior auris.*
7. The *internal maxillary,* which gives off the *spinous artery* of the dura mater, the *maxillary,* and several branches which go to the palate and orbit.
8. The *temporal.*

The following branches are given off from the internal carotids,

1. The *ophthalmic.*
2. The *middle cerebral.*
3. The *communicans.*

The following are the branches given off by the subclavian arteries,

1. The *internal mammary,* which sends off the *thymic, comes phrenici, pericardiac,* and *phrenico-pericardiac* arteries.
2. The *inferior thyroid,* from which the *tracheal, ascending thyroid,* and *transversalis humeri* are derived.
3. The vertebral, which forms within the cranium the basilary artery, which gives off the *anterior cerebelli,* the *posterior cerebri* and many other branches.
4. The *cervicalis profunda.*
5. The *cervicalis superficialis.*
6. The *superior intercostal.*
7. The *supra scapular.*

When the subclavian arrives at the axilla, it receives the name of the *axillary artery,* and the latter when it reaches the arm is called the *brachial.*

The following are the branches given off by the axillary artery,

1. *Four mammary arteries.*
2. The *sub-scapular.*
3. The *posterior circumflex.*
4. The *anterior circumflex.*

The following branches are given off by the brachial artery,

1. *Many lateral branches.*
2. The *profundi humeri superior.*

3. The *profundi humeri inferior.*

4. The *great anastomosing artery.*

At the bend of the arm, the *brachial artery* divides into the *ulnar* and *radial arteries.*

The ulnar gives off,

1. *Several recurrent branches.*

2. The common interosseal, which sends off the *dorsal ulnar, palmaris profunda,* the *palmary arch,* and the *digital.*

The radial artery gives off the following branches,

1. The *radial recurrent.*

2. The *superficialis volæ,* after which it divides into the *palmaris profunda,* and the digitals.

The arteries given off by the DESCENDING AORTA in the thorax are,

1. The *bronchial.*

2. The *œsophageal.*

3. The *inferior intercostals.*

4. The *inferior diaphragmatic.*

In the abdomen the aorta gives off,

1. The *cœliac,* which at the distance of half an inch from its origin, divides into three branches: 1. the *gastric* or *coronary artery,* 2. the *hepatic,* and 3. the *splenic.* The hepatic artery, before it reaches the liver gives off, 1. the right *gastro-epiploic,* and 2. the *cystic artery.* The splenic artery gives off the *pancreaticus magnus,* the *left gastro-epiploic,* and the *vasa brevia.*

2. The *superior mesenteric,* which gives off, 1. the *colica media,* 2. the *colica dextra,* and 3. the *ileo colica.*

3. The *inferior mesenteric.*

4. The *emulgent* or *renal arteries.*

5. The *spermatics.*

6. The *lumbar arteries.*

7. The *middle sacral.*

After giving off the foregoing, the aorta divides into two branches, called the *internal* and *external iliac arteries.*

The internal iliac or hypogastric artery gives off,

1. The *ilio lumbalis.*

2. The *lateral sacrals.*

3. The *obturator.*

4. The *middle hæmorrhoidal.*

5. The *gluteal* or *posterior iliac.*

6. The *ischiatic.*

7. The *pudica interna,* from which the *inferior hemorrhoidals,* the *transverse perineal,* and the *dorsalis penis* arise.

The external iliac or great artery of the lower extremity gives off,

1. The *epigastric.*

2. The *circumflexus iliaca.*

After passing under Poupart's ligament, the artery of the lower extremity takes the name of *femoral* artery, and gives off,

1. The *profunda.*

2. The *anastomotica.*

When it reaches the ham, it is called the popliteal artery. It here gives off articular branches, and below the joint divides into the *anterior* and *posterior tibial.*

The anterior tibial gives off,

1. The *recurrent.*

2. The *internal malleolar.*

3. The *external malleolar.*

4. The *tarsal.*

5. The *metatarsal.*

6. The *dorsalis hallucis.*

The posterior tibial gives off the following,

1. The *peroneal* or *fibular.*

2. The *nutritia tibiæ.*

3. The *internal plantar.*

4. The *external planter* which makes a curvature across the metatarsal bones, where it gives off four digital arteries, which, after reaching the base of the toes, divides into the digital arteries.

ARTERY, ANGULAR. See Facial Artery.

ARTESTI'CUS. From *artus,* a limb. One deprived of a limb.

ARTHANI'TA. From αρτος, bread. The herb sowbread. See Cyclamen Europæum.

ARTHRAL'GIA. *Arthronalgia,* from ορθρον, a joint, and αλγος, pain. Pain in the joints.

ARTHREM'BOLUS. From αρθον, a joint, and εμβαλλω, to impel. An instrument employed by the ancients for the reduction of dislocations.

ARTHRITI'C. *Arthriticus,* from

αρθριτις, the gout. Pertaining to the gout.

ARTHRI'TIS. From αρθρον, a joint, The gout. See Podagra.

ARTHROC'ACE. From αρθρον, a joint, and κακη, a disease. Disease of the joints, and especially caries of the articular surfaces. The term is also applied to an ulcer of the cavity of a bone.

ARTHRO'DIA. From αρθρον, a joint. A moveable articulation or connection of bones, in which the head of one is applied to a superficial cavity of another, so that it can be moved in every direction.

ARTHRODYN'IA. From αρθρον, a joint, and οδυνη, pain. Pain in a joint, chronic rheumatism. See Rheumatism.

ARTHROL'OGY. *Arthrologia;* from αρθρον, a joint, and λογος, a description. A description of the joints.

ARTHROPUO'SIS. From αρθρον, a joint, and πυον, pus. Suppuration or collection of pus in a joint.

ARTHRON. A joint.

ARTHRO'SIA. From αρθροω, to articulate. Arthrosis, arthritis. Inflammation of the joints. The name of a genus of diseases in Good's Nosology, embracing rheumatism, gout and white swelling.

ARTHRO'SIS. From αρθροω, to articulate. An articulation.

ARTHROSPON'GUS. From αρθρον, a joint, and σπογγος, a sponge. A white fungous tumor of the joints.

ARTIC'ULAR. *Articularis;* from *articulus*, a joint. Pertaining to a joint.

Articular Arteries of the Knee. Several small branches are given off from the popliteal artery which surround the tibio-femoral articulation, and, from their situation, are designated by this name. They are divided into superior and inferior, and there are generally, three of the former, and two of the latter.

Articular Veins of the Knee. These generally follow the course of the arteries.

ARTICULA'TION. *Articulatio;* from *articulus*, a joint. The connection of bones with each other. Articulations are generally divided by anatomists into three kinds; namely, *diarthrosis, synarthrosis*, and *amphiarthrosis*. Articulation means also distinct utterance.

Articulation of Dental Substitutes. The adjustment and arrangement of one or more artificial teeth, so that it or they, if there be more than when placed in the mouth, shall sustain the same relationship to the organs with which they antagonize, when the jaws are closed, as did the natural teeth previously to their loss.

Articulation of the Teeth. See Teeth, Articulation of.

Articulation, Tempo-Maxillary. See Temporo-Maxillary Articulation.

Articulation of Models. See Models, antagonizing for artificial teeth.

Articulation, False. A false joint formed between the united extremities of a fractured bone, or between the articular extremity of a luxated bone and the parts with which it is in contact.

ARTICULA'TUS. *Articulate.* Jointed.

ARTIFICIAL. *Artificialis.* That which is formed by art.

Artificial Eye. A sort of hollow hemisphere, painted so as to represent the anterior part of the globe of the eye and enameled, applied beneath the eyelid. The manufacture of artificial eyes has been brought to such perfection in Paris, that it is difficult for a common observer to distinguish the difference between them and the natural organs.

Artificial Lower Lip and Chin. It sometimes happens, that persons are deprived of the lower lip and chin by wounds or other causes, so as greatly to interfere with the utterance of speech and the retention of the saliva. To remedy such loss, various contrivances have been invented, varied in their construction to suit the peculiarity of the cases to which they have been applied.

In the construction of an appliance of this sort, the first thing to be done, is to take an impression of the lip and chin of

a person, resembling, as near as possible, in these parts of the face, the individual requiring such substitute. From this impression, suitable plaster and metallic models and counter-models should be obtained. Between these, a platina plate may be stamped, which, after being fitted to the parts to which it is to be applied, should be enameled and properly colored.

But the best substitute of this sort which has ever been invented, is described by M. Delabarre in his *Traite de la Partie Mécanique de l'Art du Chirurgien Dentiste*. It consists in a thin layer of gum-elastic in solution, applied to a plaster model. After this has become dry, another and another is applied, then a piece of hempen cloth, after which, three more layers of a solution of gum-elastic are put on. Upon these a piece of fine linen spread, and over the whole, a piece of kid, properly colored, is glued.

This substitute is kept in place by means of two straps of cloth, covered with kid, properly painted. If the subject be a man, false whiskers are applied, which will more effectually conceal the mode of attachment. To the end of each strap, a piece of metal may be fixed, and bent, so as to be secured to the ear, or the straps may be fastened behind the head. For greater security, it is recommended that metallic plates be fixed to the sides of the artificial chin, which may be made fast, and concealed in the folds of the cravat.

Artificial Upper Lip. In the construction of an upper lip, the method of procedure, is very similar to that for supplying the loss of the lower; the only difference consisting in the method of attachment. Besides, the straps covered with beard, two plates are fastened to it, which pass up along the nose and secured to a pair of preservers, whose branches serve as a means of attachment. We should think the best method of retaining an artificial upper lip in its place, would be to fix means of attachment on the under side, which might be fixed to the teeth.

But a substitute for either the upper or lower lip, cannot be so constructed as to be worn without inconvenience, and it is fortunate that they are not often required.

Artificial Nose. Although, as in the case of the lips, it is impossible to construct a substitute for the nose that can be worn without inconvenience, it is by far more frequently called for, and happily it can be made to subserve a much better purpose, for the reason that after being applied it may remain stationary.

In France, the construction and application of artificial noses have been brought to quite a high state of perfection. The method of procedure is, first to take an impression of the void, occasioned by the destruction of the natural organ, then to make a model to fit the inequalities of the parts; after which, to obtain a metallic model and counter-model, between which, a thin plate of gold or platina should be swadged. After fitting this accurately to the parts, it should be enameled, and painted to correspond with the rest of the face.

The methods of attachment are various. The simplest, is by means of a slip of leather, painted flesh color, passing up over the middle of the forehead, and made fast under the hair. But this method is objectionable. The leather is visible, and it does not afford a firm and secure support to the artificial appliance. Another method consists in attaching to the interior of the nose, a superior and two lateral wings, which are made to act above and on each side in such a way as to retain the piece in its place, but it has been found that these cause not only a loss of the soft tissues against which they are made to act, but that they are liable to give rise to a diseased action in them. Mr. Ballif, however, reports the case of a woman who had lost her nose in consequence of a syphilitic disease, for whom he constructed an artificial nose, with three wings, which he moved by means of a spring made to work

by means of a button fixed in one of the nostrils. Although it caused a little pain at first, he states that this did not last long and that she did not ultimately suffer any serious inconvenience from it.

The following description of an artificial nose, complicated with a substitute for a portion of the palatine organs, was communicated to the author at his request, by his brother, Dr. John Harris. The subject, a young lady, he had an opportunity of seeing some months after the operation had been performed, and so neatly were the appurtenances constructed and applied, that none but a close observer would have suspected it to have been the work of art.

"When but little past infancy, the subject, Miss A. C., lost her nose and the central portion of the soft and bony palate, about three-fourths of an inch in length and three-eighths in width, commencing about five-eighths of an inch in rear of the front teeth, and extending backwards.

"I have no knowledge of the cause that led to the affliction, only that it was preceded by inflammation, ulceration, and general constitutional derangement.

"When about twelve years of age she submitted herself to be operated on for an artificial nose in Cincinnati, Ohio, by Dr. M. The design of which was to supply the defect by the transfer of integument from the arm, over the deltoid muscle, called the rhinoplastic or taliacotian operation.

"To say nothing of the expense, pain and suffering consequent upon the operation, and the jeopardy her life was placed in, as soon as her health would permit, she returned home in a much worse condition than when she left.

"To add to her misfortune, before she left the city, or had fairly recovered from the effects of the first operation, mortified with her now aggravated condition, as a last alternative, she had a nose manufactured of wood by Mr. Rostang, resident dentist of the same city, and confined in its position by means of spectacles, and an artificial palate, to which the nose was connected by intermediate fixtures, passing through the palatine fissure.

"As might have been expected, the subsequent development of the maxilla and other parts soon rendered the whole apparatus useless, though not until it had destroyed the three teeth which had been selected as a support to the palate, by means of as many rough, badly constructed and arranged clasps.

"About four years ago, at which time I was consulted in her case, her teeth and their relative parts exhibited the following appearance, viz. several of her teeth, besides the three irrecoverably injured by the clasps, were more or less decayed; some of which were quite loose; the gums and adjacent soft parts much inflamed, tumefied and spongy, the dental arch and general dimensions of the mouth (whatever they might have been) was evidently very much collapsed or contracted, say to nearly one-half of the usual size, as was evidenced by the position of the superior cuspidati, now standing parallel to each other and nearly in contact, between which there had been the usual number of incisores and of the ordinary dimensions, and which were lost when she was about ten or eleven years of age.

"Although the design and plan of the apparatus was a good one, for the accomplishment of the purpose for which it was intended, its premature application was unquestionably productive of the worst of consequences, and to which the contraction of the mouth may principally be ascribed.

"Her timidity, arising no doubt from the recollection of her previous suffering, gave me no little trouble in obtaining her consent to the course of procedure which I recommended, but after explaining what must soon be her condition, she reluctantly yielded her assent, and permitted me the full exercise of my judgment in the management of her case.

"The removal of the three teeth referred to was immediately effected, as was, also, all deposits of salivary calculus.

"In about eight weeks, with the usual treatment, the soft parts of her mouth were restored to health. The diseases of her teeth were next attended to, and, in some four weeks, thirteen carious places were, after the usual preparatory treatment, filled with gold foil.

"With the mouth thus restored to health, but one question could arise as to the propriety of supplying my patient with another palate. If the maxillary organs had not attained their full development, might not the same destructive consequences follow, as did from the other palate?

"From the circumstance of her advanced age, I did not much fear that this would be the case, though, had I been governed entirely by my own judgment, I should have deferred further proceedings to a more remote period, but in this I was overruled, by not only my fair patient herself, but by all her family connections, and as yet I have not had cause to regret the course I took.

"I, therefore, constructed a palate of fine gold upon the usual plan, with only two clasps, made broad and heavy, one on the left, and one on the right margins of the palate, to embrace two of the soundest and most suitable of the molar teeth.

"To the convex or superior surface of the palate one end of a piece of gold wire three-fourths of an inch long, was soldered at a point corresponding with the fissure, from front to rear, and on a line extending between the two teeth embraced by the clasps, describing the centre of action; the wire or upright was then bent forward and upwards so as to pass through the fissure and present the upper end parallel with, and at a convenient distance from, the exterior opening of the naries. This place of attachment I found necessary, that no unequal or undue pressure might result from the weight and action of the superincumbent parts upon the palate.

"A screw was now cut on a platina wire, for one-half inch, made to fit in a corresponding one through the upper end of the upright wire, on a level with the external opening of the nose. Upon the other, or anterior extremity of the horizontal platina wire, a hook was made to act as a support to the nose by means of a gold loop attached to the septum of the artificial nose, the tightness of which to be regulated by screwing the horizontal wire in or out, and its position, by bending the upright backwards or forwards.

"The length of the horizontal wire is one inch, the size or strength needs no further description.

"It is now about four years since the operation was completed, and thus far, I have heard no complaint."

Artificial Palate. A variety of contrivances have been invented to supply the loss of the palate, but art has failed to produce any appliance capable of subserving all the purposes of the natural organs. To a considerable extent, however, her resources have been made available in remedying the loss of a considerable portion of them. The simplest description of substitute that is employed for the loss of the palatine organs consists of a thin plate of gold, fitted to the gums covering the palatine portion of the alveolar border, behind the dental arch, concave inferiorly, and convex superiorly, and confined by means of clasps fitted to one or more teeth on each side of the mouth. But this, while it prevents, to some extent, the passage of fluids and food from the mouth into the nose, remedies, but very partially, the defective utterance of speech, while the sharp edge of the plate posteriorly, if it be extended sufficiently far back to separate the buccal from the nasal cavities, is apt to interfere with and irritate the tongue. But whatever may be the description of the substitute which may be employed, the ad-

vantages that will be derived from it, will greatly depend upon the accuracy of its fit to the parts with which it will be in contact, and upon the extent of its surface.

In the application of an artificial palate, it often becomes necessary to connect with it, one or more artificial teeth, which can easily be done by extending the plate over so much of the alveolar ridge as may be required by the last named substitute.

M. Delabarre has invented a very complicated and ingenious contrivance for supplying the loss of the palatine organs. He says, "The most serious case which can be presented is that which I am about to relate. An individual had lost, in consequence of syphilis, all the bony and membraneous arch of the mouth, and also the greater part of the upper teeth, amongst which were the lateral ones, which would have been the most favorable to be embraced by the clasps. I thought of constructing a mineral set of teeth, surmounted by an arch and velum of platinum, bearing upon the sides of the cavities a circle surrounding the parts to be supplied. Inside of this circle was encased a very light-box, though representing the thickness and figure of the naso-palatine floor, so that, by this means, I restored to each of the cavities the form it originally had. This being done, I supported the obturator by springs, which took their insertion upon a metallic case which enclosed the lower dental arch.

"The machine subserved a part of the object; that is to say, the nose and the mouth were separated by it; the patient, however, still spoke through his nose, because the soft portion of the palate was wanting. It was then necessary to replace this. I could have constructed a cover and a moveable plate from metal, as did the goldsmith Cadot, of whom Cullerier speaks. But I preferred gum-elastic, as I wished to employ the mechanism of deglutition for my purposes, so that the artificial cover should raise and fall every time the passage of food, and even that of saliva, should be effected from the mouth into the pharynx. Consequently, the tongue became the means of putting the mechanism in motion, and this latter was disposed of to this effect, in the following manner.

I made an oval window in the forepart of the plate; I then placed a valve which closed itself hermetically, and which was held in place by means of an axis and a small very soft spring. To this plate was soldered a lever, which, passing backwards, rested on another, held in a see-saw position by an axis. This last lever was long enough to reach the extremity of the principal plate, and it was flattened, so as to fasten to the moveable velum, which was attached to the pharyngeal border of the instrument.

"During deglutition, the point of the tongue, applying itself, pressed upon the valve, which transmitted to all the other parts the movement impressed upon it. Thus the velum was raised, and from a vertical, assumed nearly a horizontal position, in such a way that neither solid food nor drinks could escape into the nasal cavities. This plate, complicated with the artificial teeth, was yet by no means heavy, for the plates were of very thin platina, soldered with fine gold. The patient derived great advantage from it, both in mastication and deglutition, and in the articulation of words."

It is possible that a piece of mechanism, like the one just described, might be made to answer a very good purpose, as this seems to have done, but it would certainly be too cumbersome to be worn with either comfort or ease.

Mr. C. H. Stearns, surgeon, of London, has recently devoted much time and attention to the construction of appliances for remedying the imperfections of speech consequent upon a fissure of the soft palate, and we are happy to believe that his labors have been crowned with a degree of success heretofore

thought to be unattainable by art. The following is the description which he gives of the instrument which he has invented for this purpose, but it may be well to premise, that the subject of the first case to which he had occasion to apply his invention was a near relative of his, who had previously twice submitted to the operation of staphyloraphy, and several times to the hands of dentists who had endeavored to close the fissure with mechanical contrivances, but that none of these efforts had proved in the slightest degree successful. But, notwithstanding all these failures, Mr. Stearns was induced to undertake the case, and it was not until he had constructed a number of contrivances, which failed to accomplished the object at which he aimed, that he conceived the plan of the following:

He says, "a gold plate is fitted to the roof of the mouth, in the manner practiced by dentists, which is to serve as the foundation or support of the mechanism intended to supply the want of the natural soft palate. To the upper and posterior margin of this plate, a flat spiral spring is attached, which, with the delicate and permanent elasticity peculiar to that kind of spring, admits of easy and constant vibrations backwards and forwards. To the other and posterior extremity of this spring, an artificial *flexible* velum is attached. This part of the instrument is constructed of Mr. Goodyeare's preparation of caoutchouc, which, having the property to resist the action of both oils and acids, and at the same time of sustaining a high degree of heat, has proved well adapted to the purpose. In attempting to describe the artificial velum, we must, for the want of better terms at present, designate its principal parts as its *body* and *wings*. The body of the velum consists of a lamina of the caoutchouc, of a somewhat triangular form, and of the same size and shape as the vacant space it is intended to occupy, that being the plane which would be indicated by imaginary lines connecting the opposite sides or columns, and subtending the vertical angle of the fissure, at which point the velum is connected to the posterior extremity of the spiral spring. This lamina, constituting the body of the velum, is divided into three pieces, which overlap each other. The wings project obliquely forwards and outwards from each lateral margin of the body, and being made to conform to the shape of the columns or sides of the fissure, are seen to rest upon their inner and anterior surfaces, thus covering a portion of the soft parts which constitute the boundaries of the posterior fauces. In like manner, along each lateral margin of the body, there is (in mechanical phrase) a flange, projecting obliquely backwards and outwards, and extending along down the posterior surface of the column, it terminates at the interior angle of the velum. In this way the wing and the flange, on the same side together, form a groove fitted to receive the fleshy sides of the fissure. As the preparation of caoutchouc made use of presents a smooth surface, and yields readily to the slightest pressure, it is found to permit the contact and muscular motion of the surrounding soft parts, without causing any irritation. When, therefore, the sides of the fissure tend to approximate, as in deglutition, gargling the throat, or the utterance of some of the short vowel sounds, the three parts of the body of the velum slide readily by each other, thus diminishing the extent of exposed surface, and thereby irritating, to some extent, muscular contractile action, the force being derived from without, and not, of course, contained within the instrument. During the effort made in speaking, the surrounding muscular parts embrace and close upon the artificial velum, and press it back against the concave surface of the pharynx. The passage to the nares being, therefore, temporarily closed, the occlusion of sound is accomplished, and articulation made attainable,

as the voice or sound, as it issues from the glottis, is thereby directed into the cavity of the fauces, and confined there long enough to receive the impressions made upon it by the tongue, lips, &c. in the formations of the consonant letters.

"Though the instrument, after having been adapted in the way above described, was found materially to improve the speech, yet it was still considered defective, and not admitting of general application, until other important requisites had also been attained; for it was necessary to make it so yielding as not to irritate the sensitive and restless parts with which it must come in contact, so that it might at all times be retained in place without inconvenience, while eating, drinking, or during sleep. At the same time, it was required to possess a degree of strength and firmness sufficient to sustain the force of any sudden shock, as in coughing, sneezing, or laughing, without the risk of being displaced, or in any way deranged. Durability of the substance composing the velum was also regarded as a point of the first importance to insure its usefulness. The material made use of, as prepared by Mr. Goodyeare, and managed according to his instructions, was found (after some practice in the manipulation necessary to bring it to the shape required) to resist the combined action of all the decomposing agents, to which it must become subjected, viz. motion, animal heat, the moisture and acids of the mouth, and the oils of the food. The means afterwards devised to keep it in order, freeing it from deposits, and thus preventing fetor, consists in the occasional use of some alkaline or aromatic preparation."

While it is necessary to suit the shape of the metallic part of an appliance of this sort to the peculiarities of the fissure in each individual case, Mr. Stearns says, the same method of constructing the artificial velum, is applicable to all the varieties which he has met with.

In a subsequent paper, published in the London Lancet, the same periodical from which the preceding quotations are made, Mr. Stearns gives some further details of his method of procedure in the construction of the artificial palate which he invented.

After alluding to the various pieces of mechanicsm which he successively planned and constructed, and was obliged to discard, previously to having conceived the design of the one which he ultimately adopted, he says, "After this fortunate acquisition, (Mr. Goodyeare's preparation of caoutchouc,) I did not immediately hit upon the form or plan best suited to the purpose, and it was several months before I brought the instrument to its present shape, with which, however, I have every reason to be content. The present plan of construction may be best explained by a notice of the steps that have led to it. I first moulded a simple triangular and somewhat concave lamina of the material, of the same shape and size as the fissure. This I attached to the gold roof, so that it would descend obliquely downwards and backwards, until its inferior margin approached within about two lines of the concave surface of the pharynx. This method seemed to produce a decided improvement, though not so great as any one, I think, would have expected from seeing the position and action of the instrument, and that it did not, in the least, embarrass the muscular motion of the surrounding soft parts. Though the impediment still continued in a great degree, yet some improvement was manifest when the patient made a louder effort of the voice than usual, whereas, formerly, and with the instrument removed, the imperfection of the voice was observed to increase in proportion to the effort made. It seemed desirable to render the closure more complete. With this invention, the size of the velum was increased, by adding to the lower margin, and attaching a sort of wing to each wire, which, projecting obliquely forwards and out-

wards, laid upon the anterior surface of the columns or sides of the fissure. Their wings, upon both the right and left sides, together with a corresponding flange, projecting obliquely backwards and outwards behind the fissure, formed a sort of groove, fitted to receive the columns. The result of this arrangement was, that upon the least contraction of the surrounding soft parts, the passage to the nares became completely closed, and the voice was necessarily compelled to find its exit through the mouth, in consequence of which its general character became considerably improved.

"It was, however, the tone and volume of the voice that were improved, and not the articulation, to any remarkable extent. This was demonstrated by the fact, that the patient was able to make himself heard and understood from a greater distance than before, and his voice did not appear to be so completely dissipated in the nasal passages. Still it must be confessed that the difficult consonant sounds, when taken by themselves, remained much the same as before, and some, in particular, seemed as completely out of his power as ever—*c*, *g*, *g* hard, as in gig, ugly, sugar, and the like; also *k*, as in kick, &c. But certain combinations of the palatal consonants were, doubtless, facilitated, as *st* in stand, instance, &c.; *dr*, as in dread; double palatals, as *d* in madder, *t* in utter, *r* in mirror, and the simple mutes and palatals generally.

"The patient was, moreover, conscious of a general increased physical excitement or accession of animal spirits, affording more confidence in the effort to articulate, which caused him to express a belief, that by attention and practice, with the aid of the instrument, he could make still further improvement. This accession of animal spirits was, probably, not wholly imaginary, as ascribable to the cheering prospect of obtaining relief from a most unfortunate infirmity; for it is likely that the presence of the artificial velum operated to obstruct and set back the current of air, issuing from the glottis, and hence, the supply heretofore expended in the production of sound no longer finding its accustomed free exit, now became more economically husbanded than formerly. Hence, the expulsive efforts of the diaphragm, muscles of the chest, &c., during the act of speaking, tended to bring the air into more intimate contact with the blood, rendering it, therefore, more highly oxyginated, and, in effect, increasing its stimulant and vital properties. This absolute increased fullness of the lungs was further demonstrated by some novel sensations along the margin of the ribs, at the attachments of the diaphragm in front; and, moreover, by a sensation of giddiness, after continuing for some little time, the effort of speaking or reading, which indicate an impeded return of blood from the head.

"But still another most serious imperfection of the instrument soon developed itself, which seemed likely to prove an insurmountable obstacle to further progress. After exercising the voice for a few moments, it very soon became sufflated, like that of a person with a bad cold, or similar to that produced by pinching together the nostrils. This was alike disagreeable to the hearer, and inconvenient to the speaker, and seemed, indeed, to constitute almost as serious an impediment to the speech, as that which it was sought to relieve. It was caused by the action of the surrounding soft parts, together with the current of sound, forcing the velum too far backwards and upwards into the pharynx, producing not only a complete, but too long continued a closure of the posterior passage, and presenting, also, a nearly horizontal surface to the column of sound, issuing from the glottis.

"The idea at length occurred of dividing the velum into three parts, and this I regard as the foundation of all subsequent success, and without which, nothing would have been accomplished worth the trouble of making public.

This plan admitted of the extension of the velum further downwards, gave it a more nearly vertical position, and obviated its liability of being forced upwards, and then retained as before. This action of the muscles now carried it back far enough to meet the concave surface of the pharynx, and then, contracting upon it more closely, caused the three pieces to slide easily and quickly over each other, thus closing and opening the passage just at the intervals of time, necessary for the purposes of articulation and modulation.

"As the preparation of caoutchouc made use of, presents a smooth surface, and yields readily to the slightest pressure, it is found to permit the contact and muscular motion of the surrounding soft parts, without causing any irritation. When, therefore, the sides of the fissure tend to approximate, as in deglutition, gargling the throat, or the utterance of some of the short vowel sounds, the extent of exposed surface is thus diminished, thereby imitating, to some extent, muscular contractile action, the force being derived from without, and not, of course, contained within the instrument. During the effort of speech, the surrounding muscular parts embrace and close upon the artificial velum, and press it back against the concave surface of the pharynx. The passage to the nares being therefore, temporarily closed, the occlusion of sound is accomplished, and articulation made attainable, as the voice, or sound, as it issues from the glottis, is thereby directed into the cavity of the fauces, and there confined long enough to receive the impressions required to be made upon it by the tongue, lips, &c. in the formation of the consonant letters.

"After this last essential improvement in the plan of construction, the patient began to improve rapidly in facility of articulation, and he required no other stimulus to constant practice, than the evidence, that the disadvantages of an infirmity, which he had endured all his life, were daily disappearing; a new world seemed opening to his enjoyment, and he constantly had the satisfaction of meeting with old acquaintances, who happened not to know what had been done, and of witnessing their expressions of surprise at the change which had taken place.

"It will not be supposed by any one who duly considers the force of natural laws, and the obstinacy of life-long habits, that this change was instantaneous, or that it was brought about, in a miraculously short space of time. Although the benefit which followed from the grand alteration of the instrument, (dividing the velum into three pieces,) was sufficiently obvious at the outset to warrant the expectation of continued improvement of the speech, it did not, at once, impress every person who happened to hear the voice, without his attention being called to notice the change. Indeed, the alteration seemed now to have been quite trifling, compared with the entire change, which has since taken place, as the result of practice of the voice, and getting accustomed to the use of an artificial substitute, for an important natural organ. This may suggest an inquiry as to how far the relief obtained, in the case, should be ascribed to local practice pursued, and what share belongs to the merit of the instrument? But that question is at once answered by seeing the substitute removed, when the original impediment at once returns with a suddenness that does not fail to startle all present."

Subsequently to the publication in the London Lancet, of a description of Mr. Stearns' invention—an invention which cost him so much time and labor, and has been crowned with such happy and gratifying results, Dr. Tucker, of Boston, has constructed an artificial palate upon the same or a very similar plan, which proved eminently successful in the accomplishment of the object, for which it was intended.

ARTIFICIAL TEETH. Contribut-

ing as the teeth do, to the beauty and pleasing expression of the countenance; to correct enunciation, and by the function of mastication which they are the chief agents in performing, to the health of the whole organism, it is not surprising that their loss should be considered a serious affliction, and that art should be invoked to replace such loss with artificial substitutes. So great, indeed, is the liability of the human teeth to decay, and so much neglected are the means of their preservation, that few persons reach even adult age, without losing one or more of these invaluable organs. But happily for suffering humanity, they can now be replaced with artificial substitutes so closely resembling those planted in the jaws by the hand of nature, as almost to elude detection, even by the most critical and practiced observers. But, though there is a perfection in the works of nature that can never be equalled by art, artificial teeth, can, nevertheless, be so constructed and applied as to subserve, in the majority of cases, the purposes of the natural organs, though not as perfectly, nor with the same convenience to the person wearing them.

As great as have been the achievements in other branches of dental surgery, during the last ten or fifteen years, they have been fully equalled, if not surpassed, by those of the one on which the author is at present treating. Mechanical dentistry has arrived nearer to perfection, than its most sanguine and zealous cultivators dared, fifteen years ago, in the most ardent flights of their imagination, to anticipate it could ever be brought. And, judging from the past, the *ne plus ultra* of achievement has not even yet been attained.

The insertion of artificial teeth, is an operation, which, though acknowledged to be of great importance, and performed by every one having any pretensions to a knowledge of dentistry, it is, unfortunately, but little understood by the majority of practitioners. By its improper performance, the mouth may be irreparably injured. A single artificial tooth, badly inserted, may cause the destruction of the two adjacent natural teeth, and, if the deficiency thus occasioned be unskilfully supplied, it may cause the loss of two more, and in this way a whole set of teeth may be, and often is, destroyed.

The utility of artificial teeth depends upon their being properly constructed and correctly applied. An enlightened judgment and great practical skill, therefore, are required by those who practice this, as well as the other branches of the art. A knowledge of the anatomy and physiology of the mouth—its various pathological conditions and therapeutical indications, is essentially necessary to the dental practitioner; and as important as is correct information to him upon these points, it is even more so, that he should be thoroughly skilled in the various mechanical manipulations that pertain to the prosthesis of these organs. As great mechanical nicety and as perfect accuracy of execution are required in the construction of an artificial substitute for the natural teeth, as in the manufacture of the various parts of a watch or any other complicated piece of mechanism. In fact, more ingenuity and tact are required in the former than in the latter, for there are no two cases requiring artificial teeth precisely alike—consequently, the artist must be governed by the circumstances peculiar to each, which will often be found to differ from those of any other; whereas, in making a watch, he only copies what he has done, perhaps, a thousand times before.

There are difficulties connected with the insertion of artificial teeth which none but an experienced practitioner has any idea of. Besides those of properly constructing and applying them in such a manner, as that they may be easily removed and replaced by the patient, and at the same time be securely fixed in the mouth, and productive of no

injury to the parts with which they are connected or associated, there are sometimes others equally difficult to overcome. For example: the loss of a tooth in one jaw is generally followed by the gradual protrusion from its socket of the one with which it antagonized in the other, so that if that be replaced with an artificial one of equal size, it will strike against this at each occlusion of the mouth, and prevent the other teeth from coming together. This tendency of the teeth in one jaw to protrude, is always in proportion to the number lost in the other; and if not soon counteracted by the replacement of the latter with artificial substitutes, often gives rise to an obstacle to their proper application, which will require no little ingenuity and tact to overcome. If it were necessary, the author could mention other difficulties connected with this branch of practice, equally great, but will let it suffice to state, that there are few, as formidable as they oftentimes are, which the well informed and skilful dentist cannot successfully overcome.

But, notwithstanding the triumphs of mechanical dentistry—the high state of excellence to which it has arrived, there never was a time, when so much injury was inflicted, and suffering occasioned by artificial teeth, as at present, and resulting, too, from their bad construction and incorrect application. That such should be the case, when there are so many scientific, skilful practitioners in every city, and in many of the towns in the country, may seem strange, but the fact is, nevertheless, undeniable, and will continue to be so, as long as the public are willing to receive a newspaper advertisement of *cheap dentistry*, as sufficient evidence of competency on the part of those who practice the art.

Many have chosen dentistry as a profession, under the belief that a knowledge of it could be more easily acquired than that of any other honorable and profitable calling, and some, after having followed it for two or three years, finding, that to obtain respectability and usefulness, greater difficulties were to be surmounted than they had anticipated, have abandoned the pursuit, rather than bring disgrace both upon it and themselves. Let no one, therefore, be deceived into the belief, that he can become master of the art in a few weeks or months, for, should he commence the study under such an impression, he will be disappointed, and find, after having devoted to it what he had been led to suppose sufficient time for its thorough acquisition, that he has then scarcely attained a knowledge of its elementary principles.

The information obtainable from works on mechanical dentistry, was, until recently, exceedingly limited; and it is surprising, that, from the number who have written on the surgery of the teeth, this subject should have received so little attention. Fauchard, Bourdet, Angermann, Maury, Delabarre, Koecker, Lefoulon, Brown and a few others, are all who have given it any thing more than a passing notice; and the works of but few of these writers contain any thing like explicit directions upon the subject. Delabarre's Mechanical Dentistry was, at the time of its publication, a work of much merit. The various methods adopted at that period, for the construction and application of artificial teeth, are accurately and minutely described in it—together with the advantages and disadvantages of each. But, however perfect the work may then have been, it does not furnish the information required upon the subject at the present day. And still more deficient in correct information are nearly all the other French works.

Among the English writers, Koecker is almost the only one, except Robinson, a more recent author, who has described correctly the principles upon which artificial teeth should be applied. His "Essay on Artificial Teeth, Obturators and Palates," contains much useful and valuable information. It

does not, however, contain a description of the various manipulations through which a dental substitute should pass, preparatory to its application; yet to one having a knowledge of them, it is very serviceable. As the ability to properly execute a piece of dental mechanism can only be acquired by a regular apprenticeship, Dr. K. perhaps thought that a more minute description than that which he has given, was unnecessary; but there are many practitioners, who are, in other respects, competent, that have not enjoyed this advantage, or at least, not in the mechanical department, and, consequently, it is to be regretted that he has not entered more into detail upon the subject.

But most of the deficiencies that exist in the last named work, are supplied by Dr. Solyman Brown, in his series of papers on *Mechanical Dentistry*, published in the American Journal of Dental Science. These papers are illustrated with numerous cuts, and constitute the best treatise upon the subject that had appeared up to the time of their publication. Most of the manipulations connected with this branch of the art, are here very accurately described.

Substances Employed for Artificial Teeth.

There are certain qualities which it is highly important that artificial teeth should possess. They should be durable in their nature, and in their appearance resemble the natural organs with which they have oftentimes to be associated.

The kinds of teeth employed, are

1. Human teeth.
2. Teeth of neat cattle, sheep, &c.
3. Those carved from the ivory of the elephant's tusk, and the tooth of the hippopotamus.
4. Mineral teeth.

Human Teeth.

As far as it regards appearance, and in a dental substitute this is an important consideration, human teeth are preferable to any other, and when used for this purpose, they should be of the same class as those whose place they are designed to supply. The crowns only are employed, and if well selected, and properly inserted, the artificial connection with the alveolar ridge cannot easily be detected.

The durability of these teeth when thus employed, depends on the density of their structure, the soundness of their enamel, and the condition of the mouth in which they are placed. If they are of a close texture, and have a sound and perfect enamel, and are inserted in a healthy mouth, they will last from eight to twelve or a greater number of years. The difficulty, however, of procuring these teeth, is generally so great, that it is seldom that such as the author has just described, can be obtained, and even if they could be, the mouth in four cases out of every five, in which artificial teeth are placed, is not in a healthy condition, its secretions are vitiated and of so corrosive a nature, that they often destroy them in less than four years. He has even known them to be destroyed by decay in two, and in one case in fifteen months.

A human tooth, fixed in the mouth by art, is more liable to decay than one of equal density having a vital connection with the general system, for the reason, that its osseous structure is more exposed to the action of deleterious chemical agents. But of all the animal substances employed for this purpose, human teeth are unquestionably the best. They are harder than other bone, more perfectly protected by enamel, and consequently more capable of resisting the action of the corrosive agents to which all artificial as well as the natural teeth, are exposed. Many object to having these teeth placed in their mouth, under the belief that infectious diseases may be communicated by them. But there is no good foundation for such fear, for the purifying process to which they are previously submitted, precludes the pos-

sibility of the communication of disease through their agency. When the practice of transplanting teeth was in vogue, occurrences of this sort were not unfrequent, but since that has been discontinued, it has never happened. But, notwithstanding this, the prejudices of some against having human teeth placed in their mouths are so strong, that it is impossible to overcome them.

It would, however, be impossible to meet the demands for artificial teeth, if these were the only kind used. The difficulty of procuring them, and the high price they command, have induced many practitioners to profit by the popular prejudice against them, and to employ other substances in their stead.

Teeth of Cattle.

Of the various kinds of bone employed for dental substitutes, the teeth of neat cattle, are, perhaps, after the human teeth, the best. By slightly altering their shape, they may be made to resemble very closely, the incisores of some persons, but a configuration similar to the cuspidati cannot be given to them; and in the majority of cases they are too white and glossy to match any of the human teeth. The contrast, therefore, which they form with the natural organs should constitute, if they were in all other respects unexceptionable, an insuperable objection to their use. This has been too much disregarded, both by dentists and patients. Indeed, many of those who wish artificial, believe they cannot have them too white or too brilliant.

There are other objections than those which the author has just mentioned, to the use of these teeth. In the first place, they are only covered anteriorly with enamel, and, in the second place, their bony structure is less dense than that of the human teeth, and consequently are more easily acted on by chemical agents. They are, therefore, less durable, seldom lasting more than from two to four years. Another objection to their use is, they can only be employed in very few cases, for their nerve cavities are so large, that by the time they are reduced to the size of the incisores, they become exposed, and by the time these fill up with ossific matter, their crowns are so much worn away that they are too short, except in cases where such teeth are required. It is seldom, therefore, that they can be used as substitutes for the natural teeth, except for the central incisores, and here, only in the fewest number of cases.

Ivory of the Tusks of the Elephant and Hippopotamus.

The employment of these substances for artificial teeth, has been sanctioned by usage from the earliest periods of the existence of this branch of the healing art; but we must not hence conclude that it has been approved by experience. On the contrary, of all the substances that have been used for this purpose, this is certainly the most objectionable.

The ivory of the elephant's tusk is decidedly more permeable than that obtained from the tooth of the hippopotamus. So readily does it absorb the fluids of the mouth, that, in three or four hours after being placed there, it becomes completely penetrated with them. Consequently, it is not only liable to chemical changes, but also to become offensive, and when several teeth, formed from it, are worn, they affect the breath so much, that it is exceedingly disagreeable to come within its influence. Teeth, on account of its softness, are easily shaped from it, but not being covered with an enamel, they soon become dark, and give to the mouth a most filthy and disgusting appearance. Fortunately, however, this article is, at present, but rarely used for the purpose.

The ivory of the tusk of the hippopotamus is much firmer in its texture than that obtained from the elephant; and, as it is covered with a hard, thick enamel, teeth may be cut from it, which

will, at first, very much resemble those given us by nature. There is, however, a peculiar *animation* about the natural teeth which those made from this substance do not possess. These, moreover, soon change their color, assuming first a yellow and then a dingy or dark bluish hue. They are also, like those just mentioned, very liable to decay. The author has in his possession a number of blocks of this sort, taken from the mouths of different individuals, some of which are nearly half destroyed.

But there is another objection to teeth made of this article, which, even were there no other, would be sufficient to condemn its use. It is, that they, like those formed from elephant's ivory, give to the air, returned from the lungs, an insufferably offensive odor, which cannot be corrected or prevented. They may be washed half a dozen times a day, and taken out and cleansed again at night, but it will still be grossly perceptible; and, although it may be much worse in some mouths than others, none who wear teeth formed from this substance are entirely free from it.

To one, whose attention has never been directed to the subject, it would be astonishing to observe the effects produced upon the breath, from wearing two or three of these teeth.

But objectionable as this substance is, for a dental substitute, it is still employed by a few practitioners, and fifteen years ago it was used by one-half of the dentists in the country. Influenced, however, by the discovery of its tendency to vitiate the secretions of the mouth, to impart a fetor to the breath, and other objections which have been mentioned, the author has never used it, except during the first two or three years of his practice, and he would not then have employed it, had he been aware of the pernicious consequences that result from it.

Mineral Teeth.

The manufacture of porcelain teeth, did not for a long time promise to be of much advantage to dentistry. But by the ingenuity and indefatigable exertions of a few, they have, within the last fifteen years, almost entirely superceded every other kind of artificial teeth.

The French, with whom the invention of these teeth originated, encouraged their manufacture by favorable notices; and the rewards offered by some of the learned, and scientific societies of Paris, contributed much to bring it to perfection. They were still, however, deficient in so many particulars, that they received the approbation of very few of the profession, and that only in some special cases.

It is principally to American dentists, that we are indebted for that, which the French so long labored in vain to accomplish.

A want of resemblance to natural teeth, in color, transparency, and animation, was the great objection that was urged against the porcelain; and, had it not been obviated, it would have prevented their ever being extensively employed. Until recently, all that were manufactured had a dead opaque appearance, which rendered them easy of detection, when placed along side of the natural teeth, and gave to the mouth an unanimated and sickly aspect. But so great have been the improvements, in their manufacture, that few can now distinguish any difference between them and the natural organs. During the last twelve years, the author has used, almost exclusively, the teeth manufactured by Mr. Stockton, of Philadelphia, and he has no hesitation in recommending them, as unsurpassed by any he has ever used. The ingenuity and indefatigable exertions of Mr. S. in bringing the manufacture of these teeth to such perfection, entitle him to the warmest thanks of the profession, and of the public. The extensive manner in which he carries on the business, enables him to furnish at all times, teeth of every variety of shade and size. He would also mention the names of Mr. Alcock, and Messrs. Jones,

White & Co., who also manufacture very beautiful teeth.

Very good teeth are manufactured, too, by several other individuals in this country; but, in order to excel in their manufacture, it is necessary, as has been before stated, to devote to it one's whole attention. Of those who have engaged in their fabrication, not more than one in fifteen has succeeded; and many, after having spent much time and labor, have abandoned the attempt, and supplied themselves from others, with a far better article, and at a much less expense.

It is only by repeated experiments that any thing like a satisfactory result can be arrived at, and to make which, requires more leisure than most practitioners, attending both to surgical and mechanical dentistry, can command. Still it would be well for every one who has a large practice in mechanical dentistry to be supplied with an assistant capable of manufacturing mineral teeth, as cases occasionally occur, presenting peculiarities which call for teeth that cannot be appropriately supplied from any assortment which he may happen to have. But such cases are rare, and on the score of economy, no sufficient inducement is offered to the dentist to justify him in attempting their manufacture.

The advantages which these teeth possess over every sort of animal substance, are numerous. They can be more nicely fitted to the mouth, and worn with greater convenience. They do not absorb its secretions, and, consequently, when proper attention is paid to their cleanliness, they do not contaminate the breath, or become, in any way, offensive. They never change their color. They are not acted on by the chemical agents found in the mouth; and hence the name incorruptible, which has been given them.

Such are the considerations that have induced the author to prefer them to every other kind of artificial teeth. The objections that have been urged to their use, are: a want of congeniality between them and the mouth, they being better conductors of caloric than bone, and, consequently, more liable to become cold when exposed to the air, &c.; but these have so little foundation, that, if compared with the advantages these teeth confessedly possess, they must be regarded as unworthy of consideration. See Mineral Teeth.

Different Methods of Applying Artificial Teeth.

It has been already stated, that the utility of artificial teeth measurably depends on the manner in which they are applied, and in noticing the different methods employed in their application, it may be well to point out the peculiar advantages and disadvantages of the various principles upon which they are constructed and secured in the mouth.

In determining the particular mode of securing artificial teeth in the mouth, much ingenuity and practical judgment are often necessary; but there are certain principles which, if well understood, will enable the practitioner, in almost every variety of case, to apply them in such a way, as to secure to his patient the greatest possible amount of benefit that can be derived from such substitutes.

The methods of inserting artificial teeth are, first, on the roots of the natural teeth; second, on a plate with clasps; third, with spiral springs; fourth, by atmospheric pressure. The peculiar advantages of each of these methods we shall now proceed to point out, and the cases in which they are particularly applicable.

Artificial Teeth placed on Natural Roots.

This method of inserting artificial teeth, has, on account of its simplicity, been more extensively practiced than any other, and under favorable circumstances, is unquestionably the best that can be adopted. If the roots on which they are placed, be sound and healthy,

and the back part of the jaws supplied with natural teeth, so as to prevent those with which the artificial antagonize from striking them too directly, they will subserve the purposes of the natural organs more perfectly and effectually than any other description of dental substitute. When they are thus placed, they rest on a firm basis, and if they are properly fitted and secured, their connection with the natural roots cannot easily be detected. But, unfortunately, the incisores and cuspidati of the upper jaw, are the only teeth which it is proper to replace in this way.

And the insertion of an artificial tooth on a diseased root, or on a root having a diseased socket, is always followed by injurious effects. The morbid action already existing in the root, or its socket, is aggravated by the operation, and often caused to extend to the contiguous parts, and, sometimes, even to the whole mouth. Nor is it always proper to apply a tooth immediately after having prepared the root. If any irritation is produced by this preparatory process, the tooth should not be inserted until it has wholly subsided. The neglect of this precaution not unfrequently gives rise to inflammation of the alveolo-dental periosteum and alveolar abscess.

Although this method of inserting artificial teeth has received the sanction of the most eminent dental practitioners the world has ever produced, and is certainly the best that can be adopted for replacing the loss of the six upper front teeth; yet on account of the facility with which the operation can be performed, it is often resorted to under the most unfavorable circumstances, and in consequence of which, has been, undeservedly, brought into discredit.

The efforts of the economy for the expulsion of the roots of the bicuspid and molar teeth, after the destruction of their lining membrane, are rarely exhibited in the case of roots of teeth occupying the anterior part of the mouth. This circumstance has led the author to believe, that the roots of these teeth receive a greater amount of vitality from their investing membrane, than do the roots of those situated farther back in the mouth, and that, though the amount of living principle, with which they are supplied, is inconsiderable, yet it is sufficient to prevent them from becoming obnoxious to their sockets.

The admission of this hypothesis can alone account for the fact to which we have just alluded, for it is well known that a dead root is always productive of injury to the surrounding parts, and that nature calls into action certain agents for its expulsion. Therefore, the insertion of a tooth on a completely dead root, is highly improper; but the fangs of the front teeth are rarely entirely deprived of vitality, and hence, after the destruction of their lining membrane, they often remain ten, fifteen, and sometimes twenty years, without very obviously affecting the adjacent parts.

Were the doctrines advocated by Mr. Bew and Dr. Koecker correct, the death of a tooth would be simultaneous with the destruction of its lining membrane, and the pivoting method, as it is commonly called, of fastening teeth, opposed to every correct principle of surgery. But that the views of these gentlemen are erroneous, may be proven by boring into the cavity of the root of a tooth, towards its external surface, commencing within the alveolus. Before the instrument shall have passed three-fourths of the way through, the root will become so sensitive as to incontrovertibly evidence the existence of vitality. In fact, the remaining of the root in its socket, without occasioning disease, is, of itself, sufficient proof that its vascular and nervous connection with the general system is still kept up.

It is somewhat singular that these facts should have escaped the observation of these gentlemen; but that they have, is clearly manifest from what they say. Dr. Koecker tells us, that the vitality of the teeth is entirely dependent

on their lining membrane, and that its destruction is followed by their immediate death. Mr. Charles Bew, in treating on the circulation of these organs, after adverting to that of the general system, remarks: "It is just to take for granted, that through each tubefied fang of the teeth, which the most sceptical observer, anatomist or not anatomist, may distinctly discern, the blood is anteriorly thrown to the interior of the tooth, and there, following a due course of beautifully organised circulation through the osseous part, is (si interim nihil interferat) quietly returned by the periosteum of the exterior."

Dr. Fitch, in noticing the views of these gentlemen, observes, they "are both incorrect and contrary to facts, and the most correct analogical observations. We find that, in all hollow bones, of which the fangs of the teeth are a good example, that they have an external and an internal periosteum, and that the bone has an internal and an external periosteum, which, in their circulation, depend mostly upon these membranes; if the external dies, a part of the external bone dies, but no farther than the circulation depended on the dead membrane, and vice versa, when the internal periosteum is diseased or loses its vitality." This is a pathological fact that does not admit of cavil or doubt, and, so far as the teeth are concerned, especially those in the anterior part of the mouth, may be fully verified by boring in the root, as in the manner before described.

On the death, therefore, of the internal membrane of a tooth, the crown and internal part only of the root, dies. This necrosis, so far as the author has been able to ascertain, extends but little more than half way through the root, and in this state it often remains, not being possessed of any powers of exfoliation, for years. So fully convinced has he been of this fact, that he has not hesitated, whenever he found a suitable root, to insert on it an artificial crown; and the success that has attended the practice, proves the principles upon which it is founded to be correct.

The observations of Mr. John Hunter, on the vitality of the roots of teeth, although he did not believe these organs to be vascular, are doubtless true. He infers, inasmuch as the roots of teeth do not decay as readily as the crowns, that they are endowed *with greater living powers.*

The vitality of the crowns of the teeth, being wholly derived from the lining membrane, ceases with its destruction; but the fangs, being supplied with a living principle, from an external, as well as from an internal-membrane, retain a portion of their vitality as long as the external continues to exist, which, with those of the incisores and cuspidati, is not unfrequently for from fifteen to twenty years.

Thus it will be seen, that the death of the root of a tooth, is not simultaneous with that of its lining membrane; consequently, the objections of Dr. Koecker, based upon this supposition, to the pivoting method of inserting artificial teeth, is without foundation. We shall, therefore, conclude our remarks upon this subject, after briefly noticing one other objection, urged by the same gentleman.

"By the insertion of the pivot," says he, "into the canal of the root, the natural curative process, in the decomposition and absorption of the fang, is either prevented or retarded; while on the other hand, the most convenient outlet for a constant and regular discharge of the matter, which is always produced by the carious root in the surrounding soft parts, is obstructed; the matter, thus confined by this artificial obstruction at the point of the root, penetrates through the socket and gums, and forms gum-biles, or small fistulous abscesses, in the neighborhood of the root."

This objection, although applicable to some cases, but not to all, may be obviated, by forming a groove on the side of

the pivot sufficiently large for the ready escape of any matter that may form at the apex of the root. This method of giving egress to the matter thus formed, was suggested to the author about eighteen years ago, by Dr. L. S. Parmly, of New Orleans, and by adopting it whenever he had reason to apprehend the formation of matter, he has avoided the consequences mentioned by Dr. Koecker, as resulting from it. It is, however, in the fewest number of cases that matter forms, if the root be in a suitable condition for the reception of a tooth, and if it is not, it would unquestionably be better to remove it and apply a tooth on another principle. As a general rule, no root should be used that has been deprived of its lining membrane by inflammation and suppuration, as in this case there will generally be a formation of matter at its apex, which rarely happens, when it is destroyed by mechanical or chemical means.

The manner of preparing a root and applying a tooth to it will be described in another article.

Artificial Teeth Attached to a Plate with Clasps.

This method of applying artificial teeth, is, perhaps, in favorable cases, with the exception of the one just noticed, the best that can be adopted; and, on account of its more extensive applicability, may be considered as more valuable even than that. By this means, the loss of a single tooth, or of several teeth, in either or both jaws, may be supplied. A plate may be so fitted to an aperture in the dental circle, and secured with clasps to the other teeth, as to afford a firm support to six, eight, ten, or even twelve artificial teeth.

Teeth applied in this way, when properly constructed, will last for many years, and sometimes during the life of the individual. But it is necessary to their durability, that they should be correctly arranged, accurately fitted, and substantially secured to the plate, and that the plate itself be properly adapted to the gums, and attached to teeth that are firmly fixed in their sockets.

Gold is the only metal that should be employed for making the plate and clasps; and this, for the former, should be from twenty to twenty-one carats fine, and from eighteen to nineteen for the latter. If gold of an inferior quality be used, it will be liable to be acted on by the secretions of the mouth. Platina would, perhaps, answer the purpose as well as gold; but there are so few in the United States who understand working it, that the getting of it out into plate, and such other forms, as are required, would be attended with much difficulty and inconvenience.

The plate should be thick enough to afford the necessary support to the teeth; but not so thick as to be clumsy, or inconvenient from its weight. The clasps generally require to be about one-third or one-half thicker than the plate, and sometimes double its thickness. The gold used for this purpose, is sometimes prepared in the form of half round wire; but, in the majority of cases, it is far preferable, that it should be flat; as such clasps afford a much firmer and more secure support to artificial teeth, than those that are half round; they also occasion less inconvenience to the patient, and are productive of less injury to the teeth to which they are attached.

Artificial teeth, applied in this way, may be worn with the greatest comfort, and can be taken out and replaced, at the pleasure of the person wearing them; which, as it is important that they should be very frequently cleansed, in order to prevent the secretions of the mouth that get between the plate and gum, and the clasps and teeth to which they are attached from becoming vitiated and irritating the soft parts, corroding the teeth and tainting the breath, it should, on no account whatever, be neglected. Great care, therefore, should be taken to fit the clasps in such a manner as will admit of their being easily re-

moved and replaced; and, also, that they may not exert any undue pressure upon the teeth to which they are fastened. If they press too hard upon them, they will occasion inflammation of their periosteal and alveolar membranes, and the gradual destruction of their sockets.

Artificial Teeth with Spiral Springs.

When attached to plates, the only difference between the method last noticed, of applying artificial teeth, and the one now to be considered, consists in the manner of confining them in the mouth. The former is applicable in cases where there are other teeth in the mouth to which clasps may be applied—the latter is designed for confining whole sets, and parts of sets, where clasps, or other means, cannot be conveniently employed for their retention in the mouth.

When plates are employed, the teeth are attached to them in the same manner as they are when clasps are used; but instead of being fastened in the mouth to the other teeth, they are kept in by means of spiral springs, one on each side of the artificial denture, between it and the cheeks, passing from one piece to the other.

Spiral springs are often employed for confining only a lower set in the mouth, and sometimes for only parts of sets. When a number of teeth in the back part of the jaws are required, and, there are no teeth in the mouth to which clasps can be applied, capable of affording a sufficient support, resort to spiral springs sometimes becomes necessary. Various other kinds of springs have been used, but none that have been tried, seem to answer the purpose as well as these. When they are of the right size, and attached in the proper manner, they afford a very secure and convenient support. They exert a constant pressure upon the artificial pieces, whether the mouth be opened or closed. They do not in the least interfere with the motions of the jaw; and, although they may at first seem awkward, a person will soon become so accustomed to them, as to be almost unconscious of their presence.

Atmospheric Pressure, or Suction Method of Applying Artificial Teeth.

The method last described, of confining artificial teeth in the mouth, is often inapplicable, inefficient and troublesome, especially for the upper jaw, and it is in such cases, more particularly, that the atmospheric pressure, or suction method, is valuable. It was for a long time thought to be applicable only for an entire upper set, because it was thought that a plate sufficiently large to afford the necessary amount of surface for the atmosphere to act upon could not be furnished by a piece containing a smaller number of teeth. Experience, however, has proven this opinion to be incorrect. A single tooth may be mounted upon a plate presenting a surface large enough for the atmosphere to act upon for its retention in the mouth, but as a general rule when only a part of an upper set is required, it is better to secure the piece by means of clasps, if it can be done without endangering the durability of the teeth to which they are applied. For a like reason, it was thought that the narrowness of the inferior alveolar ridge would preclude the application of a plate to it upon this principle, and in this opinion the author participated, but he has succeeded so perfectly in confining lower pieces by this means, that he rarely finds it necessary to employ spiral springs for double sets.

The practicability of confining teeth in the mouth by this means, was formerly very much questioned, and even at the present day it is doubted by many. The principle on which the plan is founded, may be simply illustrated by taking two small blocks of smooth flat marble, and exhausting the air from between them—the pressure of the atmosphere on their external surfaces, will enable a person to raise the under block, by lifting the

upper. In a similar manner, a gold plate, or any other substance, impervious to the atmosphere, and perfectly adapted to the gums, may be made to adhere to them.

The firmness of the adhesion of the plate, or base to which the teeth are attached to the gums, depends on the size or depth of the alveolar ridge. If this is full and prominent, it will adhere with great tenacity, but if it is so shallow as to admit of being moved horizontally, its retention will often be attended with difficulty. It is also important that the teeth should be so arranged and antagonized, that they shall strike those in the other jaw all the way around at the same instant. This is a matter that should never be overlooked, for if they meet on one side, before they come together on the other, the part of the plate or base not pressed on, will be detached, and by admitting the air between it and the gums, it will cause it to drop.

The application of artificial teeth on this principle, has been practiced for a long time; but the plates formerly used were ivory instead of gold, and could seldom be fitted with sufficient accuracy to the mouth to exclude the air; so that, in fact, it could hardly be said that they were retained by its pressure. Unless fitted in the most perfect manner, the piece is constantly liable to drop, and the amount of substance which it is necessary to leave in it, renders it so awkward and clumsy, that a set of teeth mounted upon a base of this material can seldom be worn with much comfort or satisfaction; and, besides, ivory absorbs the fluids of the mouth so readily, that, after being worn for a few weeks it becomes exceedingly offensive.

We have seen may sets of teeth fixed on plates, or rather blocks, of ivory, and many that were composed altogether of this substance; and, in one instance, prepared a set ourself; but the objections above stated were so palpably manifest, that we determined never again to attempt the insertion of artificial teeth upon this principle. Having, however, been called upon about thirteen years ago, by a lady whom we highly esteemed, for an upper set of teeth, and, finding that they could not be confined in the mouth by any other means, we were reluctantly induced, after having stated to her all the objections, to undertake their insertion. Instead, however, of using, as formerly, a plate carved from the ivory of the hippopotamus' tooth, we determined to employ one of gold, and accordingly, made it so as to fit all the inequalities of the gums; and, after having fastened the teeth to it, in the manner to be hereafter described, placed it in the mouth; and having exhausted the air from between it and the gums, had the satisfaction to find that it firmly adhered, and that the teeth enabled the lady, (to use her own words,) to "speak and eat with perfect ease." These teeth still continue to answer all the purposes that can be expected from artificial teeth under the most favorable circumstances.

The firmness with which teeth, applied upon this principle, can be made to adhere to the gums, and the facility with which they can be removed and replaced, renders them, in many respects, more desirable than those fixed in the mouth with clasps. But, unless judgment and proper skill be exercised in their preparation, a total failure may be expected, or, at least, they will never be worn with satisfaction and advantage.

Many, in attempting to insert artificial teeth in this way, have failed of success, and, in consequence, have condemned the principle, when, in reality, the fault was attributable to some defect in the preparation of the teeth or of the fixtures with which they were connected. Many of the failures are owing to their premature insertion, for, however well the plate, upon which the teeth are fixed, may fit the gums at the time of its application, it will soon lose its adaptation, if it be applied previously to the completion of the changes in the alveo-

lar ridge, that follow the removal of the natural teeth. When this happens, the air gets between the plate and gums, and the whole apparatus, as a natural consequence, drops; whereas, if a sufficient time is allowed for the completion of the changes just alluded to, it will continue to adhere to the gums. Another very frequent cause of failure is, a want of proper adaptation in the first instance. Unless the plate be made to fit the gums with the most perfect accuracy, the pressure of the atmosphere cannot be expected to confine it to them.

It has not, until recently, been thought expedient to apply parts of sets upon this principle, nor did we, for a long time, believe the pressure of the atmosphere and capillary attraction would give to a lower set, because of the narrowness of the alveolar ridge of the inferior maxillary, sufficient stability to render it at all serviceable, but experience has fully demonstrated its practicability.

The application of artificial teeth upon this principle, originated with the late Dr. Gardette, of Philadelphia, and we believe, that, soon after he made his first successful experiment, Mr. John Wooffendale, of New York, constructed a dental substitute for the upper jaw which were retained in the mouth by suction, and at the time he did it, was not aware that it had ever been done by any one else. The first set applied upon this principle by Dr. Gardette, was, we believe, near the close of the last century, but it was not until within a few years that the practice become common with dentists, and Drs. L. S. Parmly and Koecker are among the first writers to recommend it. But at the time of the publication of the work of the former of these gentlemen, in which he alludes to this method of applying artificial teeth, metallic bases had not been used for this purpose. The latter, however, says, the teeth may be mounted either on gold or the ivory of the hippopotamus' tooth. We believe it has only been within the last ten or twelve years that the use of metallic bases has become common.

The adhesion may be greatly increased by the formation of an air chamber in the plate, opening next the gum or roof of the mouth.

Other methods, as the ligature and transplanting, have been employed in the application of artificial teeth, but as they have long since been abandoned, a description of them in this place is not deemed necessary. See Mechanical Dentistry; Pivot Teeth, Manner of Inserting; Metallic Base for Artificial Teeth; Models, Plaster; Model and Counter-model; Mounting Artificial Teeth upon a Metallic Base, and other articles on dental prosthesis.

ARTHUR, ROBERT. Author of a popular treatise on the Diseases of the Teeth, including a description of their Structure and Modes of Treatment; together with the usual mode of inserting Artificial Teeth. Philadelphia, 1846.

ARUM DRACUNCULUS. The systematic name of dragon's-wort.

Arum Maculatum. Common arum, or wake-robin.

ARUNDINA'CEOUS. From *arundo;* a reed. Reed-like.

ARUNDO BAMBOS. The bamboo plant.

Arundo Saccharifera. The sugar cane.

ARYTÆ'NO. Belonging to the arytænoid cartilage.

Arytæno-Epiglottideus. A muscle of the epiglottis.

ARYTÆ'NOID, *Arytænoideus*, and *arytænoides;* from αρυταινα, a funnel, and ειδος, shape. Some parts are so called because they have a funnel shape.

Arytænoid Cartilages. The name of two cartilages of the larynx.

Arytænoid Glands. Small glandular, whitish bodies, anterior to the arytenoid cartilages.

ARYTÆNOIDE'US. A name given to some muscles, nerves, vessels, &c.

Arytænoideus Major. See Arytænoideus transversus.

ARYTÆNOIDEUS MINOR. See Arytænoideus Obliquus.

ARYTÆNOIDEUS OBLIQUUS. The name of a muscle of the glottis.

ARYTÆNOIDEUS TRANSVERSUS. An azgos, or single muscle of the glottis.

ASAFŒ'TIDA. From the Hebrew word *asa*, to heal. A gum resin—the concrete juice of the ferula asafœtida.

ASAPH'ATUM. From α, priv. and σαφης, clear. An intercutaneous affection, consisting of collections in the pores of the skin, which, when pressed out, look like small black-headed worms.

ASAPHI'A. From α, priv. and σαφης, clear. Defective utterance or articulation, resulting from disease of the palate.

ASARABACCA. See Asarum Europœum.

AS'ARUM. From α, priv. and σαιρειν, to adorn; so called because it was not admitted into ancient coronal wreaths. The name of a plant—the asarabacca.

AS'ARUM EUROPŒUM. The asarabacca of the shops.

AS'ARUM CANADEN'SE. Asarum carolinianum. Canada snake-root; wild ginger.

ASBESTOS. *Asbestus*. A mineral more or less flexible and fibrous. The ancients manufactured cloth from it for wrapping up dead bodies when exposed on the funeral pile. In consequence of its being a non-conductor of caloric, it was recommended by Dr. S. Brown, a few years since, in the American Journal of Dental Science, to be placed in the bottom of cavities in very sensitive teeth, previously to the introduction of gold, to prevent the painful sensation sometimes produced in cases of this sort, by cold or hot fluids when taken into the mouth. To what extent these effects may be prevented by the employment of this article, we are unable to say, never having had occasion to try it, and its use for this purpose, if employed for it at all, is exceedingly limited. Cases, however, may occur, in which it may, perhaps, be advantageously used.

AS'CARIS. The name of a genus of intestinal worms.

ASCARIS VERMICULA'RIS. The thread or maw-worm; it is found in the rectum.

ASCARIS LUMBRICOI'DES. A long round worm.

ASCEN'DENS. From *ad* and *scando*, to ascend. Ascending. Applied to parts which have their origin lower than their termination.

ASCI'TES. From ασκος, a sack or bottle; called so, because of its bottle-like protuberance. Dropsy of the abdomen, or rather of the peritoneum, characterized by fluctuation, increased size of the abdomen, &c.

ASCLE'PIAS ASTHMAT'ICA. A creeping plant of the Isle of France, supposed to be a specific in asthma.

ASCLEPIAS SYRIACA. Syrian dogsbane.

ASCLEPIAS VINCETOX'ICUM. *Vincetoxicum*. Swallow-wort.

ASCO'MA. From ασκος, a bottle. The eminence of the pubes of females at the age of puberty, is so called from its shape.

ASIT'IA. From α, priv. and σιτος, food. Abstinence from food; want of appetite.

ASO'DES. From αδω, to nauseate. A fever attended with a sense of nausea, loathing, and great internal heat.

ASPER'ITY. Roughness.

ASPHAL'TUM. A bituminous substance found in a soft liquid state on the surface of the Dead sea, which, by age, becomes dry and hard.

ASPHOD'ELUS RAMO'SUS. The name for the officinal, or branched asphodel.

ASPHYX'IA. From α, priv. and σφυξις, pulse. Suspended animation; an apparent privation of pulse. From whatever cause this may be produced, its effects upon the teeth, when it results in death are very singular. It causes

their bony or osseous tissue to be slightly injected with red blood, giving to them a faint red or purplish tinge. This is particularly observable in the teeth of persons who have been drowned, hung, or have died from the Asiatic cholera, and demonstrates, beyond doubt, the vascularity of these organs. The author has a number of specimens of teeth thus injected, in his cabinet.

ASPHIX'IED. In a state of asphyxia.

ASPLE'NIUM. The name of a genus of plants.

Asplenium Cet'erach. The systematic name of spleenwort. Miltwaste.

Asplenium Filex Fœ'mina. Female fern.

Asplenium Ruta Mura'ria. Wall-rue; white maiden-hair.

Asplenium Scolopen'drium. The systematic name of scolopendrium.—Hart's tongue.

Asplenium Trichom'anes. The systematic name of trichomanes. Common maiden-hair, or spleenwort.

ASSABA. The name of a Guinea shrub.

ASSAFŒ'TIDA. Asafœtida.

ASSARABAC'CA. Asarum Europœum.

ASSAY. Essay. A process, the object of which is to determine the quantity of valuable or precious metal contained in any mineral, or metallic mixture, by analyzing a small part of it.

ASSIMILA'TION. *Assimilatio;* from *as* and *similare*, to make like to, or similar. The conversion of food into nutriment. Nutrition.

ASTHENI'A. From α, priv. and σθενος, force, strength. Debility. Want of strength.

ASTHENO'PIA. From α, priv. σθενος, strength, and ωφ, the eye. Weakness of sight.

ASTH'MA. From ασθμαζω, to breathe with difficulty. Difficult respiration, recurring at intervals, attended with a sense of stricture across the breast, and in the lungs, with a wheezing cough. It is placed by Dr. Cullen in the class *neurosis*, and order *spasmi*.

ASTHMAT'IC. Affected with, or relating to, asthma.

AS'TOMUS. Αστομος, from α, priv. and στομα, a mouth. Without a mouth.

ASTRAG'ALUS. From αστραγαλος, a dye; so called because of its supposed resemblance to the dye used in the ancient games. A short bone of the Tarsus.

Astragalus Exs'capus. Stemless milk-vetch.

Astragalus Tragacantha. The plant which affords the gum tragacanth. See Astragalus Verus.

Astragalus Verus. Goat's-thorn; milk-vetch. Astragalus tragacantha.

ASTRAN'TIA. See Imperatoria.

Astrantia Major. Astrantia vulgaris. Astrantia nigra.

Astrantia Nigra. The herb sanicle master-wort. Black master-wort.

ASTRIC'TUS. From *astringo*, to bind. When applied to the abdomen, it signifies costiveness.

ASTRIN'GENT. *Astringens;* from *astringo*, to constringe. That which has the property of contracting and rendering more solid the organic textures.

ASTROL'OGY. *Astrologia;* from αστρον, a star, and λογος, a discourse. The art of divining by inspecting the stars.

AT'AVISM. From *atavus*, an old grandsire or ancestor, indefinitely. The reappearance of an anomaly or disease, after it had been lost in one or more generations.

ATAX'IA. From α, priv. and ταττω, to order. Irregularity in the functions of the body, or the symptoms of a disease.

AT'ELES. Ατελης, imperfect; defective.

ATELEC'TASIS PULMO'NUM. *Pneumonatelectasis.* Imperfect dillitation of the lungs at birth.

ATELOCHEI'LIA. From ατελης, imperfect, and χειλος, lip. Imperfect development of the lip.

ATELOENCEPHAL'IA. From

ατελης, imperfect, and εγκεφαλον, the encephalon. Imperfect development of the brain.

ATELOGLOS'SIA. From ατελης, imperfect, and γλωσσα, tongue. Imperfect development of the tongue.

ATELOGNA'THIA. From ατελης, imperfect, and γναθος, the jaw. Imperfect development of the jaw.

ATELOMYEL'IA. From ατελης, imperfect, and μυελος, marrow. Imperfect development of the spinal marrow.

ATELOPROSO'PIA. From ατελης, imperfect, and προσωπον, the face. Imperfect development of the face.

ATELOSTOM'IA. From ατελης, imperfect, and στομα, mouth. Imperfect development of the mouth.

ATHAMAN'TA. From Athamas in Thessaly. The name of a genus of plants.

Athamanta Creten'sis. The systematic name for the *daucus creticus*. Candy carrot.

Athamanta Oreoseli'num. The systematic name for the officinal *oreoselinum*. Black mountain parsley.

ATHANA'SIA. From α, priv. and θανατος, death, because its flowers do not easily wither. The immortal plant. Tansey. It also means immortality.

ATHERO'MA. From αθηρα, pap or pulp. An incisted tumor, containing a soft substance of the consistence of a poultice.

ATHLE'TA. From αθλος, combat. The men who exercised themselves in combat at the public festivals were called Athletæ.

ATHLET'IC. *Athleticus*. Possessing great muscular strength.

ATHYM'IA. From α, priv. and θυμος, courage. Pusillanimity, despondency, melancholy.

ATLAS. From Ατλαω, I sustain, because it sustains the head, or from the fable of Atlas, who was supposed to sustain the world upon his shoulders. The name of the first vertebra.

AT'MOSPHERE. From ατμος, vapor, and σφαιρα, a globe. The elastic invisible fluid which surrounds the earth.

ATON'IC. *Atonicus*. Diminution of strength. Weak.

AT'ONY. *Atonia;* from α, priv. and τονος, tone. Debility. Want of muscular power.

ATRABIL'IARY. From *ater*, black, and *bilis*, bile. Black bile. An epithet applied by the ancients to melancholic and hypochondriac dispositions, because it was believed that the atrabilis predominated in them.

Atrabiliary Capsules. The suprarenal glands.

ATRACHE'LUS. From α, priv. and τραχηλος, the neck. Short-necked.

ATRESIA. Imperforation.

ATRE'TUS. From α, priv. and τραω, I perforate. Imperforation of the anus or parts of generation.

ATRICES. Small tubercles which sometimes appear about the anus.

ATRICI. Small sinuses about the anus, but which do not perforate the rectum.

ATRIPLEX FŒTIDA. Chenopodium vulvaria.

Atriplex Horten'sis. Atriplex sativa; grass-leaved, sea orache.

AT'ROPA. From Ατροπος, the goddess of destiny, so called from its fatal effects. The name of a genus of plants.

Atropa Belladon'na. Belladonna. Deadly nightshade or dwale.

Atropa Mandragora. Mandrake.

AT'ROPHY. *Atrophia*. From α, priv. and τρεφω, to nourish. Marasmus. Atrophy. A gradual wasting of the body, usually unattended by fever, but by a loss of appetite, and impaired digestion. Any organ of the body thus affected is said to be atrophied. See Atrophy of the Teeth.

Atrophy of the Teeth. This affection was formely treated of, and even is at present by some French writers, under the name of erosion. The former appellation was substituted by M. Duval, for the latter, and for the disease which it is intended to designate, it cer-

tainly seems to be the most appropriate. By erosion is usually understood, the gradual destruction of a tooth by the action of an acrimonious humor. It consists in the decomposition of the enamel, and is seldom attended with any discoloration of the affected part. It is identical in every respect with caries; and is produced by the same cause, but atrophy is characterized by a white, brown or yellow spot upon the enamel, or a number of small holes in it, which have the appearance of being partially cicatrized, and this last variety is more common than the first. Two, four, six, and even eight of the front teeth, in each jaw, are, sometimes, encircled by these perforations, which, by their partial union, form a sort of rough groove. It is not uncommon to see teeth with two or even three horizontal grooves of this sort running round them, and the partially united holes of which they are formed, sometimes extend only a short distance into the enamel; at other times, they penetrate entirely through it. They usually have a brown appearance, and in the majority of cases, their walls are rough and uneven, though they are sometimes quite smooth.

The bone as well as the enamel of the teeth is often affected with the disease. The crowns of atrophied teeth are sometimes not more than half or one-third of their usual size, presenting a shrivelled appearance. In this case, the enamel in some places is entirely wanting, while in others, it is more or less perfect, except that it usually has a brownish appearance, and is less hard.

In the variety first spoken of, the enamel is often so soft as readily to crumble under the pressure of an instrument. This description may be congenital or accidental; the other varieties are always congenital, as they never occur after the birth of a tooth.

The first variety rarely affects more than one or two teeth—the other varieties, except that which is characterized by a diminution of the size of teeth, always affects two, and sometimes four, six or even eight. It rarely, however, appears upon more than six teeth in the same jaw.

The incisores are more liable to be affected by it than any of the other teeth, though the cuspidati, bicuspides and even the molares are sometimes attacked with the disease. The crowns of the teeth are the parts most frequently affected by it, yet, nevertheless, it sometimes appears upon the roots, giving them a shrivelled and uneven appearance.

Causes.—The description of atrophy, first noticed, is evidently the result of the destruction of the bond of union between the enamel and the osseous tissue of the tooth, but what causes this destruction, especially when it occurs previously to dentition, is a question that has never been satisfactorily answered. Subsequently to this period, it may result from a blow, but while the teeth are imbedded in the jaws, it could not be produced in this way. It may, however, and very likely does, result either from inflammation of, or some other diseased action in the pulp, whereby some portion of this intermediary substance is prevented from being developed, or from becoming united in every part to the animal framework of the enamel. The other descriptions of atrophy are supposed to be the result of vicious nutrition, whereby the development of one or more of the enamel fibres is prevented, or caused by eruptive and other febrile diseases. Bunon ascribes it to an acrid humor, insinuating itself into the alveolus. The fluids of the dental capsules may become acidulated and produce erosion, the name by which he designates the affection in question, but not this disease. M. Delabarre seems, also, to have confounded atrophy with erosion, although he endeavors to point out the distinction that exists between the two diseases, but most of the drawings which he gives of teeth affected by the latter, are evidently marked with the former.

The most probable cause is, a diseased action in the cells of the enamel membrane, induced by some peculiar form of constitutional derangement, whereby the deposit of earthy matter is wholly or partially prevented, and, hence, the want of development of the corresponding enamel fibres, and the perforations by which the affection is characterized. It will be recollected that the formation of the enamel commences on the cutting edges of the incisores, cuspidati and bicuspides, the cusps and protuberances of the grinding surfaces of the molares, and from thence proceeds towards the neck, gradually enveloping the whole crown, so that the occurrence of constitutional disease capable of thus affecting the cells of the enamel membrane, while in the act of being filled with earthy salts, would act upon a circular series passing all the way round the tooth. The part of the enamel previously formed, as a matter of course, could not be affected by such diseased action in the cells of the enamel membrane. It is only such of the fibres of the enamel that are, at the time, in the act of formation, that are affected. When the cause of this diseased action of the cells of this membrane ceases, or is removed, the process of the formation of the enamel is resumed, and the balance of the crown of the tooth will be covered with perfect enamel, unless the child should relapse, or be attacked with some other form of constitutional disease capable of thus affecting the formative process of this tissue. In this case, the tooth will be encircled by another series of perforations, or rough grooves, and still another, if it be again attacked.

This seems to be the only rational or philosophical explanation that can be given of the cause of this particular description of atrophy, and the constitutional diseases upon which it is supposed to be dependent, are measles and small-pox. But cases have been met with in individuals who have never been affected with either of these diseases—and, hence, it is evident that it may result from some other form of constitutional disturbance.

Atrophy, characterized by an imperfect development of the osseous part of the crown of a tooth, discoloration, &c. is, doubtless, the result of diseased action in the pulp, at the time of ossification.

Treatment.—The nature of this affection is such as not to admit of cure. The treatment, therefore, must be preventive rather than curative. All that can be done is to mitigate the severity of such diseases as are supposed to produce it, by the administration of proper remedies. By this means, the effects, may, perhaps, be partially or wholly counteracted.

It seldom happens that atrophied teeth decay more readily than others, so that the only evil resulting from the affection, is a disfiguration of the organs. When the cutting edges of the incisores only are affected, the diseased part may sometimes be removed with a file without inflicting the slightest injury on the teeth.

ATROPINE. The active principle of atropa belladonna.

ATTEN'UANTS. *Attenuans;* from *attenuo*, to make thin. Medicines which increase the fluidity of the blood.

ATTOL'LENS AUREM. A muscle of the ear.

Attollens Oculi. A muscle of the eye.

ATTRAC'TION. *Attractio;* from *attraho*, to attract. Affinity; tendency of bodies or particles of matter to approach one another and adhere together. See Affinity.

Attraction of Cohesion. Cohesion; the force which unites similar particles into masses.

Attraction, Elective. Chemical attraction. The tendency of those substances in a mixture which have the strongest affinity for each other to unite. Thus, if sulphuric acid be poured into a solution containing baryta, magnesia

and soda, it elects the baryta, and forms by its union with it, sulphate of baryta.

ATTRACTION, ELECTRICAL. The approach of bodies dissimilarly electrified.

ATTRACTION OF GRAVITATION. The mutual tendency of bodies to each other.

ATTRAHENT. From *ad*, to, and *traho*, I draw. Remedies which attract fluids to the parts to which they are applied.

ATTRI'TION. From *ad*, and *terere*, to bruise. Friction; bruising.

AUD'ITION. From *audire*, to hear. Hearing.

AU'DITORY. *Auditorious;* from *audire*, to hear. Belonging to the organ of hearing.

AUDITORY ARTERIES AND VEINS. The vessels which enter the auditory canals.

AUDITORY CANALS. See Meatus Auditorius Externus, and Meatus Auditorius Internus.

AUDITORY NERVE. Portio mollis of the seventh pair.

AUGITE. A green, black, or brown mineral, found in volcanic rock and basaltes.

AURA. From αω, to breathe. Any subtile vapor or emanation.

AURA SANGUINES. The odor exhaled from blood immediately after being drawn.

AURAN'TIUM. The orange.

AURANTIUM CURASSAVENTE. The Curassoa apples or oranges. Immature oranges.

AURANTII BACCÆ. See Citrus Aurantium.

AURANTII CORTEX. See Citrus Aurantium.

AURICHALCUM. Brass.

AURIC'ULA. Diminutive of *auris*, the ear. The auricle of the ear.

AURICULA JUDÆ. See Peziza Auricula.

AURICULA MURIS. *Hieracium;* hawkweed.

AURICLES OF THE HEART. The two cavities of the heart which receive the blood from every part of the body, the right from the two venæ cavæ and coronary vein, and the left from the four pulmonary veins.

AURIC'ULAR. *Auricularis;* from *auris*, the ear. Pertaining to the ear.

AURIS. From *aura*, air. The organ of hearing. The ear.

AURISCAL'PIUM. From *auris*, the ear, and *scalpo*, to scrape. An ear scraper.

AURIST. From *auris*, the ear. One who occupies himself with the treatment of the diseases of the ear.

AURUM. Gold.

AURUM FOLIATUM. See Gold Foil.

AURUM FULMINANS. The precipitate formed by putting ammonia into a solution of gold.

AURUM GRAPHICUM. A gold ore.

AURUM HORIZONTALE. Oil of cinnamon and sugar.

AURUM LEPROSUM. Antimony.

AURUM MUSIVUM. Mosaic gold; a preparation used as a pigment for giving to plaster figures a golden color. It is a combination of tin, mercury and sulphur.

AURUM POTABILE. Dissolved gold mixed with oil of rosemary.

AUSCULTA'TION. *Auscultatio;* the act of listening. It is now used as a means of diagnosis in diseases of the lungs and heart, which is supposed to be determined by the sounds heard in the chest. For this purpose an instrument called a *stethoscope* is employed.

AUTOP'SIA. From αυτος, himself, and οψις, vision. Ocular examination Dissection of a dead body.

AUXIL'IARY. Assisting. That from which assistance is obtained.

AVANTURINE. A variety of quartz, found in Scotland and Spain.

AVELLANA CATHARTICA.—See Jatropha Curcas.

AVENIUS. Veinless. In *Botany*, a term applied to leaves which have no veins.

AVERY, SAMUEL, surgeon dentist, was born in East Lynn, Connecticut, January, 1805, but left his native place, while a youth, and soon after

commenced the study of medicine and dental surgery; in both of which he was regularly educated, but confined himself exclusively to the practice of the latter. After practicing sometime in one or more of the New England states, he moved to Brooklyn, N. Y. But he remained there only about one year, when he removed to N. Orleans, where he exercised the duties of his profession until near the time of his death, which occurred in Jan. 1839. During the brief period of his professional career, Dr. Avery acquired the reputation of a scientific and skilful practitioner. But it was to surgical dentistry that he devoted most of his time, and it was in this department of practice that he acquired most eminence. By his premature death, the dental profession lost a valuable member.

AVUL'SION. *Avulsio;* from *a*, and *vello*, to pull. Pulling or tearing from; a rending or forcible separation.

AXE-STONE. A species of nephrite.

AXIL'LA. The arm-pit, or cavity under the arm.

AXIL'LARY. *Axillaris;* from *axilla*, the arm-pit. Belonging to the axilla.

Axillary Artery. *Arteria axillaris.* The axillary artery is a continuation of the subclavian, extending from the passage of the latter between the scaleni muscles to the insertion of the pectoralis major.

Axillary Nerve. *Nervus axillaris.* Articular nerve. A branch of the brachial plexus, and sometimes of the radial nerve.

Axillary Vein. *Vena axillaris.* A continuation of the brachial veins, which terminate in the subclavian.

AX'IS. From *ago*, to act. A right line passing through the centre of a body. In *Anatomy*, the second vertebra.

AXUNGIA. From *axis*, an axletree, and *unguo*, to anoint. Hog's lard.

AZOODYNA'MIA. From α, priv ζωη, life, and δυναμις, strength. Privation or diminution of the vital powers.

AZOTE. From α, priv. and ζεω, to live, because it is not fit for respiration. One of the constituents of atmospheric air, and a distinguishing principle of animals. See Nitrogen.

Azote, Protoxyd of. A gaseous oxyd of nitrogen.

AZURITE. Prismatic azure spar. A mineral of a fine blue color, composed of alumina, magnesia, silica, oxyd of iron and lime.

AZYGOS. From α, priv. and ζυγος, a yoke, because it has no fellow. Applied to single muscles, veins, bones, &c.

Azygos Uvulæ. A small muscle of the uvula.

Azygos Vein. *Vena sine pari.* A vein situated in the right cavity of the thorax, receiving its blood from the vertebral, intercostal, bronchial, pericardiac, and diaphragmatic veins, and discharging it into the vena cava superior.

B.

BAC'CA. A berry. Fruit having seeds; a pulpy pericarpium enclosing seeds, connected by a delicate membrane, dispersed through the pulp.

BAC'CATED. Bearing berries; set or adorned with pearls.

BACCHI'A. From *bacchus*, wine. A red or pimpled face resulting from intemperance.

BACCIF'ERUS. From *bacca*, a berry. Berry-bearing. Plants which bear berries are called by this name.

BAKER, E. Author of an Essay on Ulceration of the Roots of the Teeth.

published in New York, 1842.—Also, of a Report of a Case of Osseous Union of the Fractured Extremities of the Tooth of a Child, published in vol. 1, of American Journal Dental Science, and of one or two articles on the use of Amalgam for Filling Teeth, published in the New York Dental Recorder.—Dr. B. is also the author of several other papers on the teeth, one of which is on the Treatment of the Nerves of these organs.

Beside the above, Dr. B. is the author of a paper on the Diseases of the Gums, published in the American Journal of Dental Science, vol. 6.—Also, of a paper on the use of India Rubber in Regulating the Teeth, published in the New York Dental Recorder, vol. 1.

BAL'ANCE. *Bilanx;* from *bis*, twice, and *lanx*, a dish. Literally, the double dish. A pair of scales for weighing bodies, consisting of a beam suspended exactly in the middle with a scale or basin attached to each extremity of equal weight.

BALBU'TIES. From *balbutio*, to stammer. Stammering; a defect of speech.

BALM. The name of several plants or shrubs; any thing which soothes or mitigates pain.

BALNEUM. A bath, or bathing house.

BAL'SAM. *Balsamum;* from *baal samen*, Hebrew. The name of any natural vegetable resin, concrete or liquid, having a strong odor, inflammable, not soluble in water, but readily dissolved in volatile oil, alcohol, or ether. There are five natural balsams; namely, those of Peru, and Tolu, Benzoin, solid styrax, and liquid styrax. Besides these, there are a number of pharmaceutical preparations and resinous substances which have a balsamic odor, that have received the name of balsam. But these last are termed *artificial* balsams.

Balsam Apple. Momordica balsamina.

Balsam, Canada. Canada turpentine; balsam of fir; the product of the *abies balsamea*. It is transparent when fresh, of a slightly yellowish color, of the consistence of honey; has an acrid bitterish taste, and a strong agreeable odor.

Balsam, Carpathian. The product of the *pinus cembra*, or *Siberian stone-pine* of the Alps and Carpathian mountains.

Balsam, Hungarian. A product of the *pinus pumilio*, growing in the mountains of Switzerland, Austria and Hungary.

Balsam of Copaiva. The juice of the *copaifera* officinalis and other species of *copaifera*.

Balsam of Fir. Balsam of Canada. Canada turpentine.

Balsam of Gilead. *Balm of Gilead.* A resinous juice of the *amyris gileadensis*, which, by exposure, becomes solid.

Balsam of Peru. The juice of *myroxylon peruiferum*.

Balsam of Sulphur. *Oleum sulphuratum.* An extremely fetid, acrid, viscid fluid, resulting from the reaction of sulphur upon olive oil at a high temperature.

Balsam of Tolu. The juice of the *myroxylon toluiferum*.

Balsam, Riga. *Balsamum carpaticum.* The juice of the young twigs of the *pinus cembra*.

Balsam Weed. Jewel-weed; touch-me-not.

BALSAMIC. *Balsamicus;* from βαλσαμον, balsam. Having the qualities of balsams.

BALSAMINA. Balsam apple.

BALSAMODEN'DRON MYRRHA. The systematic name of the tree which yields myrrh.

BALSAMUM. A balsam.

Balsamum Canadense. Canada balsam.

Balsamum Carpaticum. Riga balsam.

Balsamum Gileadense. Balsam of Gilead.

Balsamum Libani. Riga balsam.

Balsamum Peruvianum. Balsam of Peru.

Balsamum Tolutanum. Balsam of Tolu.

Balsamum Traumaticum. Vulnerary balsam. Compound tincture of benzoin.

BAMBALIA. Stammering.

BAMBA'LIO. From βαμβαινω, I speak inarticulately. One who stammers or lisps.

BAMBOO. A plant of the reed kind, growing in India and other warm climates.

BANANA. Musa sapientum.

BAN'DAGE. A piece of linen or flannel for surrounding parts of the body for surgical operations, or binding up a wound. A bandage may be simple or compound. The first consists of a simple piece of linen or flannel intended to encircle a limb or part. The second consists of two or more pieces united. Names expressive of the manner of its application have been given to the simple bandage; as the circular, the spiral, the creeping, &c. The names applied to the compound, are expressive of its shape or the parts to which it is applied.

Bandage, Fox's. See Fox's Bandage.

BANILLA. Epidendrum vanilla.

BAPTICA COCCUS. The kermes insect.

BAPTISIA TINCTORIA. Wild indigo.

BARAS. An Arabic name for white leprosy.

BARBADOES LEG. *Elephantiasis Arabum.* A disease characterized by great distention of the cellular tissue of the leg, and dark color.

Barbadoes Tar. Petroleum barbadense.

BARBA'RIA. Rhubarb.

BARBARY GUM. A variety of Senegal gum.

BARBA'TUS. From *barba*, a beard. A term applied in *Zoology*, to animals which have a beard or an appendage resembling a beard. In *Botany*, the hair-like appendage on the leaves or other parts of some plants, as the *mesembryanthemum barbatum*, &c.

BAR'BELS. Small cylindrical vermiform processes, appended to the mouth of certain fishes.

BARBIERS. A term applied to a paralytic affection of the tropics, followed by loss of voice, emaciation, and prostration of strength.

BARDANA. Burdock.

BARIUM. From *barytes*, from which it is obtained. The metallic basis of the earth barytes.

BARK. See Cinchona.

BAROM'ETER. From βαρος, weight and μετρον, measure. An instrument for ascertaining the weight of air.

BAR'RAS. The resin which exudes from wounds made in the bark of fir trees.

BARREES, DENTS. See Barred Teeth.

BARRED TEETH. Teeth, the roots of which, after separating, come together, embracing a greater or less portion of the maxillary bone, and which cannot be extracted without bringing away the part thus enclosed.

BARYECOI'A. From βαρυς, heavy, and ακουω, to hear. Deafness.

BARYPHO'NIA. From βαρυς, heavy, and φωνη, the voice. Difficulty of speech.

BARY'TA. From βαρυς, heavy, so called because of its ponderosity. An oxyd of barium. A simple alkaline earth, of a gray color, very ponderous and not easily fused.

Baryta, Carbonate. Barytæ carbonas.

Baryta, Hydriodate. Iodide of barium.

Baryta, Muriate of. Baryta hydrochlorate. Chloride of barium.

BARYTES. Baryta.

BASE. *Basis*, from βαινω, I go, I rest, I support myself. The foundation or support of any thing; the principal ingredient of a compound. In *Chemistry*, it is applied to alkalies, earths, and

metals, in their relations to acids and salts. In *Dental Surgery*, it is applied to a metallic, ivory, or hippopotamus plate or cuvette, used as a support or attachment for artificial teeth. It is sometimes made of porcelain paste and baked. See Bases for Artificial Teeth.

Bases for Artificial Teeth. In the construction of a base for artificial teeth, a transfer or model of plaster of Paris is first obtained. Then a metallic model and counter-model, if the base is to be of metal, is procured, and between these, a plate of suitable size and thickness is swadged. In this way it is made to fit accurately the parts upon which it is to rest. If the base is to be constructed from the ivory of the elephant or hippopotamus' tusk, the plaster model alone is sufficient. The ivory is cut to the proper size and then carved until it fits the model. But ivory is little used at present for this purpose. See Metallic Base; Osseous Base, and Mineral Base.

BASIA'TOR. Orbicularis oris.

BAS'ILARY. *Basilaris;* A name given to several parts of the body, which serve as bases to others.

Basilary Artery. An artery of the brain, formed by the union of two vertebral arteries, within the cranium.

Basilary Fossa. A fossa in the upper surface of the basilary process of the occipital bone.

Basilary Process. The inferior angle of the occipital bone.

Basilary Surface. Inferior surface of the basilary process.

Basilary Vertebra. The last lumber vertebra.

BASIL'IC. *Basilicus;* from βασιλικος, royal. A name given by the ancients to parts which were supposed to play an important part in the animal economy.

Basilic Vein. A large vein running along the internal part of the arm; at the fold of the elbow it lies over the humeral artery. The *median basilic vein* crosses at the head of the arm and joins this. Either of these veins may be opened in the operation of bleeding.

Basilicus Pulvis. A name given to a powder, formerly composed of calomel, rhubarb and jalap; it was called the royal powder.

Basio. Muscles originating from the basilary process of the occipital bone are so called.

Basio-Cerato-Chondro-Glossus.—Hyoglossus.

Basio-Glossum. Hyoglossus.

Basio-Pharyngæus. The constrictor pharyngis medius.

BASIS. A base.

Basis Cordis. The base of the heart.

BATE, C. SPENCER. Author of a paper on the Effects of Camphor on the Teeth, published in the London Lancet.

BATH. Βαλανειον, *balneum*. A bath. A receptacle of water, in which, for persons to wash or plunge; a bathing place. Baths are either hot or cold, natural or artificial.

Bath, Dry. A bath used by the ancients, composed of ashes, salt, sand, &c.

Bath, Electric. An electric bath consists in placing a person upon an insulated stool, connected by a metallic wire with the principal conductor of an electric machine in action.

Bath, Foot. *Pediluvium.* A bath for the feet.

Bath, Half. *Semicupium.* A bath adapted for only half of the body, as for the hips or extremities.

Bath, Hand. *Manuluvium.* A bath for the hands.

Bath, Head. *Capiluvium.* A bath for the head.

Bath, Hot. *Balneum calidum.* A bath having a temperature of 98° and upwards.

Bath, Medicated. *Balneum medicatum.* A bath consisting of decoctions or infusions of certain vegetable substances, or any medicinal ingredients.

Bath, Nitro-Muriatic Acid. A bath consisting of dilute aqua regia, em-

Unable to display this page

metals. The air being permitted to escape only by a small orifice, rushes out with great velocity.

BELUL'CUM. From βιλος, a dart, ελκω, I draw out. An instrument used by surgeons for the extraction of darts and thorns.

BEN. See Guilandina Moringa.

BENEOLEN'TIA. From *bene*, well, and *olere*, to smell. Sweet-scented medicines.

BEN'JAMIN, OR BENZOIN. A dry, resinous, brittle substance, obtained from the styrax benzoin. See Styrax Benzoin.

BENJAMIN FLOWERS. See Benzoic Acid.

BENNETT. Author of a Dissertation on the Teeth, published in London, 1779.

BENZOIC ACID. *Acidum benzoicum.* An acid obtained from a resin of this name by sublimation. It exists, however, in nearly all the balsams.

BENZOIN. *Benjamin.* See Styrax Benzoin.

BENZULE. From *benzoin*, and ὕλη, principle. A compound of carbon, hydrogen and oxygen, supposed to be the base of benzoic acid.

BERDMORE, THOMAS. Author of a treatise on the Disorders and Deformities of the Teeth and Gums, illustrated with cases and experiments, published, London, 1770. This was the first English work of merit ever published upon the subject on which it treats.

BERGAMOTE. A species of citron or small orange, of an agreeable taste and pleasant odor. An oil is obtained from its bark, which is much used as a perfume.

BERIBERI. *Beriberia.* A disease characterized by debility and tremor; a species of Indian palsy.

BERRY. See Bacca.

BERS. An exhilirating electuary.

BERYL. *Aqua marine.* A valuable mineral of a greenish yellow color.

BETA. The name of a genus of plants. The beet.

BETA RUBRA. The red beet.

BETA VULGARIS. The common beet root.

BETEL. *Piper betel.* An Indian plant, which, when chewed, blackens the teeth. Its properties are said to be tonic and astringent.

BETON'ICA OFFICINA'LIS. Betony, betonica purpurea; betonica vulgaris. The leaves of this plant are said to possess aperient, and the root, emetic properties.

BETONY. Betonica officinalis.

BETULA. The name of a genus of plants.

BETULA ALBA. White birch.

BETULA ALNUS. The *alnus* of the pharmacopœias. The common alder.

BEX, From βησσω, to cough. A cough.

BEZAHAN. Fossil bezoar.

BEZ'OAR. From *pa-zahar*, Persian; a destroyer of poison. Lapis bezoardicus; an earthy concretion found in the stomach, intestines and bladder of animals. These bezoars were formerly supposed to possess wonderful alexipharmic virtues.

BEZOAR BOVI'NUM. The bezoar of the ox.

BEZOAR GERMAN'ICUM. Bezoar from the Alpine goat.

BEZOAR HISTRICIS. *Lapis porninus; lapis malacensis; petro del porco.* Bezoar of the Indian porcupine.

BEZOAR MICROCOS'MICUM. The calculi found in the human bladder.

BEZOAR ORIENTALE. Oriental bezoar stone.

BEZOAR SIMIÆ. Bezoar of the monkey.

BEZOAR'DICUM JOVIALE. A greenish powder, composed of tin, antimony, mercury and nitric acid, used as a diaphoretic.

BEZOARDICUM LUNARE. A preparation of silver and antimony.

BEZOARDICUM MARTIA'LE. A preparation of iron and antimony.

BEZOARDICUM MINERA'LE Deutoxyd of antimony.

Bezoardicum Saturni. A preparation of antimony and lead.

Bezoardicum Sola're. A preparation of gold filings, nitric acid and butter of antimony, possessing diaphoretic properties.

Bezoardicus Pulvis. Pulverized oriental bezoar stone.

BEURLIN. Author of a dissertation on Difficult Dentition, published at Altel, 1779.

BEW, CHARLES. Author of a treatise on the Causes and Effects of Diseases in the Teeth, Gums, &c. published in London, 1819.

BI. From *bis*, twice; frequently attached to words in anatomy, chemistry, and botany, as *biceps*, having two heads; *bicuspides*, two points; *bilocular*, two cells; *bivalve*, two valves, &c.

BIBITO'RIUS. *Bibitorious*, from *bibo* to drink, for the reason that when the eye is drawn inwards towards the nose, it causes those who drink to look into the cup. See Rectus Internus Oculi.

BIBLIOG'RAPHY. From βιβλος, a book, and γραφω, I describe. Skilled in the knowledge of books, their authors, subjects, editions and history. Among the most distinguished dental bibliographers, are Duval, Laforgue, Delabarre, Maury, Desirabode, Nasmyth, Owen, Müller, Fitch, Hayden, Bell and Goddard.

BICEPS. From *bis*, twice, and *caput*, head. Two-headed. A term applied to muscles which have two heads.

Biceps Externus. See Triceps Extensor Cubiti.

Biceps Flexor Cruris. A muscle situated on the back part of the thigh.

Biceps Flexor Cubiti. A muscle of the forearm on the forepart of the os humeri.

BICUS'PID. *Bicuspidatus*, from *bis*, twice, and *cuspis*, a spear. Having two points.

Bicus'pid Teeth. *Dentes bicuspidati. Bicuspides, or bicuspidati*, the plural of *bicuspis*, which is derived from *bis*, twice, and *cuspis*, a point. The two teeth on each side of each jaw, between the cuspidati and first molares. They are so called from their having two distinct tubercles or cusps on their friction surfaces, one outer and one inner. Their crowns are slightly flattened from before backwards, and their transverse diameter is greater than their anterio-posterior. The cusps upon their friction or grinding surfaces are separated from each other by a furrow running in the direction of the alveolar arch. The external cusp is more prominent than the internal. In the lower jaw the cusps are smaller than in the upper, as are also the teeth themselves, and the groove which separates them is not so deep. The inner tubercle of a first bicuspis in the lower jaw is sometimes wanting. The roots of the bicuspides are generally simple, but have a vertical groove on their anterior and posterior surfaces which frequently unite in the upper jaw, forming two roots, each having an opening for the vessels and nerves to enter.

The bicuspid teeth belong to second dentition, and replace the temporary or milk molares. They are sometimes termed small molares.

BI'DENS. The name of a genus of plants.

Bidens Tripartita. Hemp agrimony.

BIEN'NIS. *Biennial.* A plant of two years' duration.

BIFURCA'TION. *Bifurcatio*, from *bis*, twice, and *furca*, a fork. Division into two branches, as of a tooth into two roots, the trachea, and aorta into two branches.

BIGNO'NIA. The name of a genus of plants.

Bignonia Catalpa. The catalpa tree.

BILAMELLATUS. Having two lamina

BILE. *Bilis.* A bitter, yellow, greenish fluid, secreted by the liver. The gall.

BIL'IARY. *Biliaris*, from *bilis*, the bile. Pertaining or belonging to the bile.

BILIARY APPARATUS. The parts concerned in the secretion and excretion of bile.

BILIARY CONCRE'TIONS. Earthy or calculous concretions found in some parts of the biliary apparatus.

BIL'IOUS. *Biliosus;* from *bilis*, bile. Pertaining to, containing, or produced by, bile. A term applied to certain constitutions and diseases, supposed to be produced by too great a secretion of bile.

BI'LOCULARIS. From *bis*, twice, and *loculus*, a little cell. Having two cells; two-celled.

BI'MANUS. From *bis*, twice, and *manus*, a hand. A term applied solely to man, because he is the only animal that has two perfect hands.

BINERVIUS. Having two nerves or ribs very apparent.

BINOC'ULUS. From *binus*, double, and *oculus*, the eye. A bandage applied to both eyes.

BIN'SICA. A disordered mind.

BIOCHYMIA. Chemistry, vital.

BIOTE. From βιος, life. Life. Also that which is necessary for its preservation.

BIOTHAN'ATI. From βια, violence, or βιος, life, and θανατος, death. A violent or sudden death, as if there were no space between life and death.

BIRTHWORT. *Aristolochia.* Birthwort snakeroot, aristolochia serpentaria.

BISCHE. *Biccho.* Dysentery of a malignant character, which often prevails in the Island of Trinidad.

BISCUIT. From *bis*, twice and *cuit*, baked. A name applied to porcelain paste, which, after having been moulded or carved into teeth, has been subjected to a red heat in a charcoal fire, for the purpose of hardening them sufficiently to receive the enamel. This process is termed biscuiting porcelain.

BISMUTH. *Bismuthum; wismuthum; regulus of bismuth; marcasita.* Tin glass. A metal of a yellowish white color, somewhat different from lead, possessing but little malleability, and fusible at 400° Fahrenheit. When combined in the proper proportion with tin and lead, the alloy is known by the name of D' Arcet's metal, fusible at the temperature of boiling water, and was at one time used for filling teeth. See D'Arcet's Metal.

BIS'TOURY. A small knife, used in surgery.

BIT NOBEN. Salt of bitumen; a white saline substance.

BITTER. *Amarus;* See Amarus.

BITTERN. The mother water which remains after the crystallization of the salt in sea or salt spring water.

BITTER SALT. Sulphate of magnesia.

BITTER SPAR. A term applied to certain crystallized varieties of *dolomite*, or double carbonates of lime and magnesia.

BITU'MEN. Asphaltum; of which there are several varieties. See Asphaltum, Naphtha and Petroleum.

BIVALVIS. Two-valved.

BIVENTER. From *bis*, twice, and *venter*, a belly. A name applied to muscles which have two bellies, as the digastricus and biventer cervicis of the lower jaw.

BIXA ORELLANA. The name of the plant affording the terra orellana or anotto, a substance used in Jamaica, in dysentery.

BLACCIÆ. Rubeola; measles.

BLACKBERRY. See Rubus Fruticosus.

BLACK DRAUGHT. An infusion of senna with salts.

BLACK DROP. A fermented aromatic vinegar of opium.

BLACK LEAD. Plumbago.

BLACK WADD. One of the ores of manganese.

BLACK WASH. A lotion of calomel and lime water.

BLACK VOMIT. One of the fatal symptoms of yellow fever; also, a name by which a disease that sometimes prevails during the months of August and September, in some of the western and

southern parts of the United States, is designated.

BLADDER. See Urinary-bladder and Gall-bladder.

BLAKE, ROBERT. Author of a Latin dissertation on the Formation and Structure of the Teeth in Man and in Various Animals, published in Edinburgh, 1798. "The hints of Hunter," to use the language of Mr. T. Bell, "served as the outlines of the plan in that field of investigation, in which Dr. Blake so efficiently labored. The errors of Hunter—and it is, I trust, no sacrilege to couple any mortal name with error—were discovered and corrected, his incongruities harmonized, and his opinions, after being submitted to the test of experiment and of rigid observation, either modestly rejected, or placed upon a still broader, and more confirmed basis than before." A few years subsequently to its first publication, it was very considerably enlarged, improved, translated into English, and republished, constituting one of the best physiological works on the teeth that had, up to that time, been issued from the press. Later researches, however, have discovered some of the views of Dr. Blake to be erroneous—and particularly those with regard to the origin of the sacs and pulps of the teeth of replacement. But his work has, and will continue to hold a high place in the literature of odontology. It has recently been republished, with Notes, by Dr. C. O. Cone, in the Library part of the American Journal of Dental Science.

BLANDIN, PH. Fr. A celebrated French surgeon, and author of an ably written work, entitled, Anatomy of the Dental System, Human and Comparative. A translation of this work, by Dr. Robert Arthur, has recently been published in the Library part of the American Journal of Dental Science.

BLASTE'MA. From βλαστανω, to germinate. A bud or shoot; a germ; the matrix or general formative element of tissues; also used by some of the ancients to signify a bud-like cutaneous pimple.

BLEN'NA. Βλέννα. *Blena.* Mucus.

Blenna Narium. Mucus from the nose.

BLENNOPHTHALMIA. Purulent ophthalmia.

BLENNOP'TYSIS. From βλεννα, and πτυω, I spit. Expectoration of mucus. Catarrh.

BLENNORRHAGIA. Gonorrhœa.

BLENNORRHŒ'A. From βλεννα, mucus, and ρεω, I flow. Discharge of mucus from the urethra. Gonorrhœa.

BLEPHAROPHTHAL'MIA. From βλεφαρον, the eyelid, and οφθαλμια, a disease of the eye. Inflammation of the eyelid.

BLEPHAROPTO'SIS. From βλεφαρον, the eyelid, and πτωσις, fall. Prolapse, or falling of the upper eyelid.

BLEPHAROSPAS'MUS. From βλεφαρον, the eyelid, and σπασμος, spasm. A spasmodic action of the eyelid.

BLEPHARO'TIS. Inflammation of the eyelids.

BLISTER *Vesicatorium; emplastrum vesicatorium; emplastrum lyttæ; epispasticum.* Any substance which, when put on the skin, raises the cuticle in the form of a vesicle, and occasions a serous secretion. The cantharides, or blistering fly is most frequently employed for this purpose, but there are other substances which will produce this effect on the cuticle.

BLISTERING FLY. See Cantharis.

BLOCK TEETH. Two or more artificial teeth carved from a piece of ivory, or from a mass of porcelain paste and afterwards baked and enameled. The former substance, at present, is seldom used for this purpose. The latter has, within the last few years, been brought to a very high state of perfection. But a dental substitute of this description, unless of the most perfect construction, is not worn with as much comfort as single teeth when properly mounted on a gold base, and, moreover,

it is more liable, from a fall or other accident, to break, and when broken, cannot be as easily repaired. Many dentists, however, notwithstanding, use them, and when well adapted to the inequalities of the parts against which they are placed, they often subserve a very good purpose. But it is more difficult to fit a piece of this description than single teeth to a metallic base. See Mineral Teeth.

BLOOD. *Sanguis* A red homogenous fluid, formed chiefly from chyle, of a saltish taste, and glutinous consistence, circulating in the cavities of the heart, arteries and veins. The average quantity of this fluid in an adult is estimated at twenty-eight pounds, and the veins are supposed to contain nearly four times the quantity that the arteries do. The blood in the arteries is of a florid red; in the veins it is of a dark brownish red, except in the pulmonary vessels. Here the color is reversed, the arteries containing the dark and the veins the red blood.

Blood is composed of water, albumen, fibrin, an animal coloring, a little fatty matter, and several salts.

BLOOD-LETTING. Every artificial discharge of blood procured for the prevention or cure of disease. An operation which consists in opening a vessel for the extraction of blood. It is divided into general and topical. Venæsection and arteriotomy are examples of the first, and the application of leeches, or cupping glasses, after scarification, of the latter.

BLOOD-ROOT. Sanguinaria canadensis.

BLOOD-VESSEL. A vessel containing and conveying blood.

BLOW-PIPE. A cylindrical tube of from twelve to eighteen inches in length, half or five-eighths of an inch in diameter at one end, gradually tapering to a fine point or nozzle, which may be straight or bent at nearly right angles, according to the purposes for which it is to be used. With an instrument of this sort, "a jet of air may be injected into the flame of a lamp or candle, so as to divert it in a long and slender cone upon a piece of charcoal or other substance placed to receive it." The greatest heat of a flame when thus urged is at the extremity of the outer or white flame, for the reason that the greatest amount of combustion is at this point. To the mechanical dentist, as well as to the jeweller and chemist, the blow-pipe is of great importance. It is used for soldering and uniting the different metallic portions of a piece of dental mechanism.

Blow-pipe, Elliot's Compound Self-acting. A combination of the common with the self-acting blow-pipe.

Blow-pipe, Hook's Self-acting.—A brass globe composed of two hemispheres firmly fastened together, having an orifice at the top for the purpose of introducing alcohol, and a tube leading from the upper to the flame of a spirit lamp placed underneath the brass globe. When this is partly filled with alcohol, and a lamp placed underneath it, the alcohol is soon converted into vapor, which finding no vent excepting through a small tube leading to the upper hemisphere of the globe, is forced from the orifice of the tube directly against the flame of the lamp which ignites it and forms a jet of flame of great intensity.

Blow-pipe, Parmly's Self-acting. An apparatus invented by Dr. Jahial Parmly of New York, consisting of a copper globe, about five inches and a half in diameter, and two alcoholic reservoirs, arranged in a small portable japanned tin case. One of the reservoirs is placed beneath the globe on the floor of the case, which it completely covers. This is about an inch and a half deep, and in the centre of which, immediately beneath the globe, a burner is placed. The other reservoir is of the same size, and placed immediately above the globe. In the top of one side of this, one extremity of a curved tube or siphon, provided with a stop-cock, enters, while the other extremity

passes down through a protuberance on the top of the globe, to near the bottom of the globe. Through this tube alcohol is introduced from the upper reservoir into the globe, and when a sufficient supply has been let in, the stop-cock is closed, and the communication between the two cut off. In the top of the other side of the upper reservoir, a burner is fixed. A little above this, a tube, communicating with the protuberance in the top of the globe, terminates. When both burners are lighted, the vapor, generated in the globe from the alcohol by the heat from the lower burner, rushes through the tube last described, into the flame from the upper burner, ignites, and throws off a jet of flame laterally five or six inches in length. Each burner is provided with an extinguisher, which can be so managed as to increase or diminish the volume of flame projected off laterally by the blow-pipe or vapor tube.

Accompanying the blow-pipe, is a small sheet-iron furnace, for heating a piece of work before soldering, and also for melting metals for casting models.

Blow-pipe and Furnace, Somerby's. An apparatus invented by Dr. R. Somerby of Louisville, Ky., consisting of a furnace and blow-pipe, arranged in an iron frame, supplied with air from a bellows.

BLUE STONE. *Cupri sulphas;* sulphate of copper.

BLUMENTHAL, C. A. Author of a Short Treatise on the Natural History of the Teeth, published at Stendal, 1810.

BODY. When applied to man, the collection of organs which compose his frame. It is, sometimes, used as synonymous with trunk, as the body of the humerous; but any thing capable of acting on our senses, may be denominated a body.

BOETHE'MA. A medicine; aid; succor.

BOLE. Βωλος, a mass. An argillaceous earth, used as an absorbent and alexipharmic. See Bole, Armenian.

Bole, Armenian. *Bolus Armeniæ.* A pale, bright red-colored earth, supposed to possess astringent and styptic properties. It constitutes a principal ingredient in many of the tooth-powders vended in the shops.

BOLETUS IGNIARIUS. The systematic name of the agaricus of the pharmacopœias. Agaric of the oak; touchwood boletus; female agaric. It was formerly much used as a styptic by surgeons.

Boletus Purgans. The boletus laricis.

BOLUS. Βωλος, a bole. A bolus. Any medicine having the shape of a pill, but larger, and not too large to be swallowed.

Bolus Armenæ. Bole, armenian.

Bolus Armenæ Albus. The white armenian bole.

Bolus Gallicus. French bole. Bolar earth, of a pale red color, with irregular variegated veins of white and yellow, possessing absorbent and antacid qualities.

BOM'BUS. Βομβος. A ringing or buzzing in the ears, sometimes accompanied by a sensation like what might be supposed to be produced by blows repeated at certain intervals. See Tinnitus Aurium.

BONE. *Os, osteon,* οστεον. Bones are hard insensible organized parts of the body, of a whitish color, and a spongy compact structure. They constitute the solid frame work of the bodies of animals of the superior classes. They serve as a support and protection to other organs, and give attachment to muscles. With the exception of the crowns of the teeth, they are covered with a fibrous and vascular membrane, called the periosteum, and from which they are liberally supplied with vessels for their nutrition. The bones of an animal united, constitute the skeleton; *artificial,* when united by artificial means, such as wires, &c. and *natural,* when connected by their own ligaments.

The texture of bones varies. The mid-

dle portion of long bones is compact, with a cavity in their center: their extremities are spongy "and the central cavity is occupied by a long net-work, formed of thin plates and fibres, called the reticulated tissue of the bones."* The greater number of bones have several processes and cavities, which are distinguished from their figure, situation, use, &c. Thus, processes extend from the end of a bone, if smooth and round, are called *heads*, and *condyles*, when flattened either above or laterally. That part which is beneath the head, and which exceeds the rest of the bone in smallness and levity, is called the neck. Rough, unequal processes are called *tuberosities*, or tubercles, but the longer and more acute, *spinous* or *styloid* processes, from their resemblance to a thorn. Their broad processes, with sharp extremities, are known by the name of *cristæ* or *sharp edges*. Other processes are distinguished by their form, and called *alar*, or *pterygoid*, *maxillary*, or *mastoid*, *dentiform*, or *odontoid*, &c. Others, from their situation, are called *superior*, *inferior*, *exterior* and *interior*. Some have their names from their direction; as *oblique*, *straight*, *transverse*, &c., and some from their use, as *trochantors*, *rotators*, &c. *Furrows*, *depressions* and *cavities*, are destined either for the reception of contiguous bones to form an articulation with them, when they are called *articular cavities*, which are sometimes deeper, sometimes shallower; or they receive hard parts, but do not constitute a joint with them," &c.†

According to Berzelius, every one hundred parts of bone in man, contain,

Cartilage, (gelatine,) completely soluble in water	32.17
Vessels	1.13
Neutral phosphate of lime	51.04
Carbonate of lime	11.30
Fluate of lime	2.00
Phosphate of Magnesia	1.16
Soda, with a small proportion of chloride of sodium	1.20
	100.00

* Wistar's Anatomy.
† Hooper's Med. Dict.

According to some anatomists, there are two hundred and forty bones in the human adult, namely,

			No.
Bones of the Head.	Bones of the *cranium* or *skull*	Frontal	1
		Parietal	2
		Occipital	1
		Temporal	2
		Ethmoid	1
		Sphenoid	1
	Bones of the *face*	Sup'r maxil.	2
		Jugal	2
		Nasal	2
		Lachrymal	2
		Palatine	2
		Infe'r spongy	2
		Vomer	1
		Infe'r maxil.	1
	Dentes or *teeth*	Incisores	8
		Cuspidati	4
		Molares	20
	Bone of the *tongue*	Hyoides os	1
	Bones of the *ear*, within the temporal bones	Malleus	2
		Incus	2
		Stapes	2
		Orbiculare os	2
Bones of the Trunk.	The *spine*. Vertebræ	Cervical	7
		Dorsal	12
		Lumbar	5
	Sacrum		1
	Coccygis os		1
	The *thorax*	Sternum	1
		Ribs	24
	The *pelvis*	Innominata ossa	2
Bones of the Upper Extrem.	The *shoulder*	Clavicle	2
		Scapula	2
	The *arm*	Humeri os	2
	The *fore-arm*	Ulna	2
		Radius	2
	The *hand*. *Carpus* or *wrist*	Naviculare os	2
		Lunare os	2
		Cuneiforme os	2
		Orbiculare os	2
		Trapezium os	2
		Trapezoides os	2
		Magnum os	2
		Unciforme os	2
	Metacarpus		10
	Phalanges		28
Bones of the Low. Extr.	The *thigh*	Femur	2
	The *leg*	Patella	2
		Tibia	2
		Fibula	2
	The *foot*. *Tarsus* or *instep*	Calcaneus	2
		Astragalus	2
		Cuboides os	2
		Naviculare os	2
		Cuneiformia os	6
	Metatarsus		10
	Phalanges		28
Sesamoid bones of the thumb and great toe, occasionally found			8
		Total	248

Bone, Tooth. See Tooth-bone.

Bone Nippers. Forceps with cutting edges that come together and strong

handles, used by surgeons for cutting off splinters of bone.

BONESET. Eupatorium perfoliatum; thoroughwort.

BOND, THOMAS E. Author of a dissertation on the Morbid Sympathies of the Mouth, published in 4th vol. American Journal Dental Science.—Professor Bond is also the Author of an English Translation of two French works. The first is entitled, a Treatise on First Dentition, and the Frequently Serious Disorders which depend upon it, by M. Baumes.—The other is entitled, a New Treatise on the Theory and Practice of Dental Surgery, by L. Lefoulon. Both of these translations are published in the Library part of the American Journal of Dental Seience.

BONY. Osseous. Pertaining to, of, or resembling bone.

BORA'CIC ACID. Acidum boracicum. Acid of borax.

BORACITE. Borate of magnesia.

BO'RAX. Boras sodæ; sodæ biboras. A saline compound of boracic acid and soda found in a native state in Thibet and South America. When purified, borax is white, transparent, presenting in its fracture a greasy appearance, and affecting the form of six-sided prisms, terminating in three-sided, or six-sided pyramids. It is used as a flux in metallurgy. In soldering or uniting pieces of gold or silver, it is the principal one employed. It is seldom used as a medicine, except as a lotion in aphthæ.

BORBORYG'MUS. From βορβορυζω, I make a dull noise. Rumbling noise in the intestines caused by flatus.

BORDER, ALVEOLAR. Alveolar arch.

BOTAL FORA'MEN. The foramen ovale of the heart.

BOT'ANIST. *Botanicus.* One who understands the nature and history of plants; one skilled in every thing pertaining to plants.

BOT'ANY. *Botanica.* Βοτανικη, from βοτανη, an herb or grass, which is derived from βοω, or βοσκω, to feed, because grass is the chief food of animals most useful to man. The science of plants; a knowledge of every thing relating to the natural history of the vegetable kingdom, embracing the terminology, classification, synonymes, sensible qualities, anatomy, physiology, &c. of plants.

BOTOT. Author of a small work on the Preservation of the Teeth, published at Paris, 1802.

BOTH'RION. From βοθριον, a little pit. A small cavity; the socket of a tooth; an ulceration of the cornia.

BOUGIE. A wax candle; *candela cerea; candela medicata; catheteres of Swediaur; cereolus chirurgorum.* A slender, flexible instrument, to be introduced into the bladder through the urethra.

BOU'LIMUS. From βου, greatly, and λιμος, hunger. A canine or voracious appetite; insatiable hunger.

BOURDET, M. A celebrated French dentist, and author of several valuable works upon the teeth; among which are, Researches and Observations on every Branch of the Art of the Dentist, published in two volumes in Paris, 1757.—Easy Means for the care of the Mouth and Preservation of the Teeth, published in 1759.—Dissertation on the Depositions of the Maxillary Sinus, published in 1764.—Easy Method to keep the Mouth Clean and the Teeth Healthy, published at Leipsic, 1766. As a writer and dentist of the eighteenth century, Bourdet ranked deservedly high. He was a man of an enlightened mind and extensive observation.

BOW-DRILL. A drill turned by a stock with a bow and string or cord.

Bow-Drill, Elliot's Improved. An improvement made by Dr. W. H. Elliot, of Montreal, which consists in using two cords instead of one. This prevents them from slipping upon the pully, and at the same time, prevents any friction of the cord. The drill stock

is also furnished with a universal joint, which enables the operator to drill the fangs of the back teeth.

BOX PLATE. A metallic plate with an air-tight chamber, used as an obturator, or in connection with artificial teeth, for the replacement of the loss of natural structure. See Raised Plate

BRACHIÆ'US. *Brachial.* Belonging to the arm.

BRA'CHIAL. *Brachialis.* That which belongs to the arm.

Brachial Aponeurosis. An aponeurosis enveloping the muscles of the arm.

Brachial Artery. *Arteria brachialis.* A continuation of the axillary artery, running down on the inside of the arm to the bend of the elbow, where it divides into the radial and cubital arteries.

Brachial Muscle, Anterior. A muscle situated on the anterior and inferior part of the arm.

Brachial Plexus. *Plexus brachiales.* A nervous plexus, seated deeply in the hollow of the axilla, extending to the inferior and lateral part of the neck.

Brachial Veins. Two veins, which frequently anastomose with each other, and accompany the artery.

BRACHIALE. A bracelet, but anatomists have applied the term to the carpus, the part on which a bracelet is worn.

BRACHIALIS EXTERNUS. See Triceps Extensor Cubiti.

Brachialis Internus. A muscle of the forearm.

BRACHIO-RADIAL. *Brachio radialis.* Belonging to the brachium and radius.

BRACHIUM. Βραχιων, the arm. The arm from the shoulder to the wrist.

BRACHIUM MOVENS QUARTUS. See Latissimus Dorsi.

BRACHYCHRO'NIUS. From βραχυς, short, and χρονος, time. A disease of short duration.

BRACHYPNŒ'A From βραχυς, short, and πνεω, to breathe. Difficulty of breathing.

BRADYMASE'SIS. *Bradymassesis;* from βραδυς, difficult, and μασησις, mastication. Difficult mastication. Dysmasesis.

BRADYPEP'SIA. From βραδμς, slow, πεπτω, to concoct. Weak digestion.

BRADYSU'RIA. From βραδμς, difficult, and ουρειν, to pass the urine. Painful evacuation of urine; dysuria.

BRACHMAEND. Author of a small Treatise on Gum Boils, published at Leipsic, 1735.

BRAIN. Cerebrum.

Brain, Little. Cerebellum.

BRANCH. From βραχιων, an arm, because branches of a tree, &c. go off like an arm. Generally applied to the principal division of an artery or nerve. It is usually employed as synonymous with ramus.

BRANCHÆ. From βρεχω, to moisten. Swelling of the tonsils and thyroid gland.

BRANCHUS. From βρεχω, to moisten. A defluxion of humors from the mucous membrane of the fauces, trachea, &c.

BRANDY. *Spiritus gallicus.* A powerful and diffusible stimulant, obtained by distilling wine.

BRANKS. Cynanche parotidæa; mumps.

BRASMA. *Brasmos.* From βρασσω, to boil. Fermentation.

BRASS. A yellow metal, formed by mixing copper and zinc.

BRAS'SICA. Cabbage, or colewort. Also, the name of a genus of plants.

Brassica Alba. White cabbage.

Brassica Apiana. Jagged or crimpled colewort.

Brassica Congylodes. Turnip cabbage.

Brassica Cuma'na. Red colewort.

Brassica Eru'ca. Garden rocket.

Brassica Florida. The cauliflower.

Brassica Lacuturria. The Savoy plant.

Brassica Napus. Wild navew, or rape.

Brassica Rapa. The turnip.

BRASSICA RUBRA. Red cabbage. It is used as a test for acids and alkalies. For this purpose it is superior to litmus; alkalies turn it green, and acids turn it red. There are several other varieties of this plant.

BRA'THU. Juniperus sabina.

BREAST. Thorax; mamma.

BREATH. The air expelled from the lungs at each expiration.

BREGMA. From βρεχω, to moisten, because the top was supposed to be moist in infants. A name formerly applied to the parietal bones.

BRENDEL. Author of a dissertation on Odontalgia, published, 1697.

BRE'VIA VASA. Short vessels. Applied to several branches of the splenic arteries and veins.

BREWSTER, C. S. Author of a paper on the Treatment of Irregularity of the Teeth, published in the French Lancet, Paris, 1840, and subsequently translated into English, and republished in the first vol. American Journal of Dental Science.

BREWSTER, G. G. Author of a paper on the Galvanic Action supposed to result from the presence of Artificial Teeth in the mouth secured to a Gold Base with Solder, published in the 2d vol. American Journal of Dental Science.

BRIER, WILD. Rosa canina.

BRICUMUM. Artemisia.

BRIMSTONE. Sulphur.

BRING. Author of a small treatise on the Modern Doctrine of the Teeth, especially those of man. Published in London, 1793.

BROACH, WATCHMAKER'S.—A quinquangular steel stem, three or four inches long, with a flattened point, very gradually increasing in size towards the extremity intended for the handle. This instrument is sometimes used by dentists for enlarging the canal in the root, and the opening into a decayed cavity in the crown, of a tooth.

BROCKETT, L. P. Author of a paper on Nervous Debility, induced by Decayed Teeth, published in American Journal of Dental Science, vol. fifth.

BROCKWAY, JOSEPHUS. Author of a paper on the Galvanic Action of Metals in the Mouth, published in American Journal of Dental Science, vol. first.

BROMATOG'RAPHY. *Bromatographia.* From βρωμα, food, and γραφη, a description. A description of aliments.

BROMATOL'OGY. *Bromatologia, siliology.* From βρωμα, food, and λογος, a discourse. A treatise on food.

BROMINE. From βρωμος, a strong odor. An undecomposed substance, of a very volatile nature, offensive smell, and suffocating odor, resembling chlorine and iodine. With oxygen it forms the bromic acid, and with hydrogen, the hydrobromic acid.

BRON'CHIA. *Bronchiæ; bronchi;* from βρογχος, the throat. The two tubes, which arise from the bifurcations of the trachea, with their ramifications.

BRON'CHIAL. *Bronchialis.* Belonging to the bronchia.

BRONCHIAL ARTERIES. The arteries given off by the thoracic aorta which go to the lungs and accompany the bronchia in their ramifications.

BRONCHIAL CELLS. The air-cells at the termination of the bronchia.

BRONCHIAL GLANDS. Numerous blackish glands, seated in the course of the bronchia, and trachea.

BRONCHIAL NERVES. The nerves of the bronchia, furnished by the two pulmonary plexuses.

BRONCHIAL VEINS. The veins which arise from the left division of the bronchial arteries.

BRONCHI'TIS. Inflammation of the lining membrane of the bronchial tubes.

BRONCHOCE'LE. From βρογχος, the windpipe, and κηλη, a tumor. The Derbyshire neck; *wen; goitre.* A tumor on the forepart of the neck, resulting from an enlargement of the thyroid gland.

BRONCHOPNEUMO'NIA. From βρογχος, bronchus, and *pneumonia*. Inflammation of the bronchia and lungs.

BRONCHORRHŒ'A. From βρογχος, bronchus, and ρεω, I flow. Increased secretion of mucus from the air-passages.

BRONCHOT'OMY. *Bronchotomia;* from βρογχος, the windpipe, and τεμνω, to cut. Tracheotomy; an operation which consists in making an opening into the larynx or trachea for the removal of foreign bodies, or the admission of air to the lungs.

BRONCHUS. The trachea, or windpipe.

BROOKLIME. Veronica beccabunga.

BROUWER. Author of a Latin dissertation on Tooth-ache, published at Leyden, 1692.

BROWN, SOLYMAN. Author of Dentologia, a poem on the diseases of the teeth, and their proper remedies; with notes, practical, historical, illustrative and explanatory, by Eleazar Parmly. The science and art of dental surgery, are exhibited in this work in their most fascinating aspects. Take it altogether, it is one of the most unique and beautiful productions upon the teeth that has ever issued from the press. The author evinces not only a scientific knowledge of the subject upon which he treats, but also a highly cultivated mind and rich poetic imagination. The above work has been much admired.

Dental Hygiene, is the title of another work, from the pen of the same able writer, and besides these, Dr. S. Brown, is the author of a series of papers, on Mechanical Dentistry, published in the American Journal of Dental Science, as well as of several popular dissertations upon dental surgery and the dental profession.

BROWN, B. B., Author of a well written article on Artificial Obturators and Palates, published in the 6th vol. of the American Journal of Dental Science.—Also, one of the editors of the Dental Register of the West, published quarterly, at Cincinnati, Ohio.

BROWN, C. Author of a paper on the Vascularity of the Teeth, published in the 2d vol. of the American Journal of Dental Science.

BROWN SPAR. Pearl spar. Sideroculcite. A white, red, brown or black spar, harder than the calcareous.

BRUCIA. *Brucine.* A vegetable alkali, extracted from the bark of the false angustura, or *brucia antidysenterica.*

BRUCINE. Brucia.

BRUNNER, J. B. Author of a work entitled, Introduction to the Necessary Science of a Dentist, published at Vienna and Leipsic, 1766.—Also of a treatise on First Dentition, published at same place, 1771.

BRUNNER'S GLANDS. *Brunneri glandulæ.* The muciparious follicles situated between the villous and cellular coats of the intestinal canal.

BRUSH. An instrument for cleansing the teeth; for finishing metallic appliances for the mouth, and for the application of a solution of borax to pieces of metal that are to be united by soldering. See Tooth Brush, Polishing Brush, and Pencillus. Brushes are also used for other purposes, as rubbing the surface of the body, painting, &c.

BRUTA. Juniperus sabina. Savin.

BRUTIA. A resinous pitch, obtained from Brutia in Italy, and used to make the *oleum picinum.*

BRUTINO. *Terebinthina;* turpentine.

BRUXANELI. A tall malabar tree.

BRYGMUS. Βόνγμος, *stridor dentium.* Grinding of the teeth.

BRYO'NIA. From βρνω, to abound, from its abundance. Bryony.

Bryonia Alba. White bryony.

Bryonia Mechoacanna, Nigricans. Convolvulus jalapa; jalap root.

BUBASTECOR'DIUM. Artemisia vulgaris; mugwort.

BUBO. From βουβων, the groin. A tumor of the glands of the groin, and also of the axilla, resulting from local

absorption of irritating matter, such as venereal poison, or it may be symptomatic of constitutional disease.

BUBON GAL'BANUM. The name of the plant from which the officinal galbanum, at first a gummy-resinous juice, but which soon becomes concrete, is obtained.

BUBON MACEDON'ICUM. The name of the plant which affords the *semen petroselini Macedonici* of the shops. Macedonian parsley.

BUBONOCE'LE. From βουβων, the groin, and κηλη, a tumor. Inguinal hernia, or rupture of the groin.

BUCHANAN, ANDREW. Author of a Report of a Case of Suppuration in the Maxillary Sinus, published in the London Forceps.

BUCCA. *Gnathos.* The mouth. The hollow of the cheeks.

BUCCAL. *Buccalis*, from *bucca;* the mouth, or rather cheek. Belonging to the mouth, and especially the cheeks.

BUCCAL ARTERY. The sub-maxillary artery.

BUCCAL MEMBRANE. The mucous membrane which lines the cavity of the the mouth.

BUCCEA. From *bucca*, the cheek. A polypus of the nose, because it was supposed to come from the mouth; a morsel, a mouthful.

BUCCINA'TOR. From βουκανον, a trumpet; so named from its agency in forcing the wind into the trumpet. The buccinator, or trumpeter's muscle, which is broad and flat, forming a large portion of the walls of the cheek.

BUCCO-LABIAL NERVE. The buccal nerve.

BUCCO-FACIAL OBTURATOR. An instrument for closing an opening, caused by a wound or disease, through the cheek into the cavity of the mouth. The inconvenience resulting from a very considerable opening from the mouth through the wall of the cheek, is a very serious one, and the closure, on replacement of it with an artificial substitute that can be worn with convenience, becomes an object of great importance. When it can be done with natural integument, by means of a plastic operation, it is certainly better than any mere mechanical appliance, but inasmuch as it cannot always be closed by means of a surgical operation, an artificial obturator sometimes becomes indispensable, and in France, it has been successfully applied.

In treating upon bucco-facial obturators, M. Delabarre says, "In order to construct a proper and capable instrument for filling this indication, it is only necessary to take an impression of the wound with soft wax. From the model procured from this, a gold or platina cap is formed, composed of two parts, entering the one within the other, covered with a shield or plate. That for the mouth should be slightly concave, whilst that for the face should be slightly convex. If the loss of substance embraces the duct from the gland, it will be necessary, for the escape of the saliva in the mouth, to form a new channel, by making it pass through a pipe formed in the machine, and opening through the buccal plate. Finally, the surface of the facial plate may be rendered unequal by cutting it with a knife, and afterwards covering it with enamel," of a pale rose color, slightly tinged with yellow, so as to make it resemble the natural skin.

BUCCO-PHARYNGE'AL. Belonging to the mouth and pharynx.

BUC'CULA. From *bucca*, the mouth. A small mouth; the fleshy part under the chin.

BUCCELLA'TIO. A method of arresting hemorrhage, by the application of small pieces of lint to the bleeding vessels.

BUCHNER. Author of a Dissertation on the Care of the Teeth, and the Preservation of their Health, published at Halle, 1752.

BUCKING. Author of a work entitled, Complete Treatise on the Extrac-

tion of Teeth, published at Hendal, 1782 and in 1805.

BUGAN'TIA. Chilblain.

BULB. Parts of the body which have a bulbous shape, as the *bulb* of a tooth; the bulb of the urethra; the bulb or root of the hair, the bulb or globe of the eye, &c.

BULBIF'ERUS. From *bulbus*, and *fero*, to bear. Bulb-bearing. Having one or more bulbs.

BULBO-CAVERNOSUS. So called from its origin and insertion. The accelerator urinæ.

BULGA. The vulva.

BU'LITHOS. From βους, an ox, and λιθος, a stone. A bezoar, or stone found in the kidneys, gall bladder, or urinary bladder of an ox or cow.

BUL'LA. A clear vesicle arising from burns, scalds or other causes.

BUNON. An ingenius French dentist, and author of a dissertation on the Prejudices, concerning the Diseases of the Teeth of Pregnant Women, published at Paris, 1759.—Also, of an essay on the Diseases of the Teeth, published at same place as early as 1743, as well as of one or two other papers upon the teeth.

BUN'YON. *Bunion;* from βουνος, an eminence. Inflammation and swelling of the bursa mucosa at the inside of the ball of the great toe.

BUPHTHAL'MUS. From βους, an ox, and οφθαλμος, an eye. Hydropthalmia. Dropsy of the eye.

BURDELL, JOHN. Author of a Popular Treatise on the Teeth, their Structure, Diseases and Treatment, New York, 1847.

BURDELL, HARVY. Author of a paper on First Dentition, and another on Dental Hygiene, published in the New York Dental Recorder, volume first.

Burdell, Harvey and John. Observations on the Structure, Physiology, Anatomy and Diseases of the Teeth, by, in two parts, New York, 1838.

BURDOCK. Arctium lappa.

BURGUNDY PITCH. *Pinus abies.* The prepared resin of the *pinus abies.*

BURIS. A scirrhous hernia, or hard abscess.

BURLIN. Author of a Latin Dissertation on Difficult Dentition, &c., published at Altdorf, 1720.

BURN. *Ambustio.* An injury or lesion produced by the action or application of too great heat.

BURNEA. Pinus sylvestris; pitch.

BURN'ISHER. One who polishes. Also, an instrument used in polishing different kinds of metals, and in the laboratory of the dentist, for finishing pieces of dental mechanism. The burnishers used by dentists, are generally made of steel, and have differently shaped, rounded, and highly polished points, so that they may be readily applied to any part of the piece. Burnishers are also sometimes made of firm, fine-grained wood, bone, agate, or other stone.

BURR, HUDSON S. Author of an Essay on the Use of Arsenic in Teeth, published in American Journal of Dental Science, volume fifth.

BURSA TESTIUM. The scrotum.

BURSÆ MUCOSÆ. Small membranous bags or sacs, situated about articular cavities, filled with an oily mucus for lubricating the tendons, muscles and bones.

BURSÆ SYNOVIALES. Bursæ mucosæ.

BURSAL'OGY. *Bursalogia;* from βυρσα, a bag, and λογος, a discourse. The doctrine of the bursæ mucosæ.

BUTTER. *Butyrum;* from βους, a cow, and τυρος, coagulum or cream. A concrete oil, obtained from the cream of milk.

BUTTER-BUR. Tussilago petasites. Pestilent-wort.

BUTY'RUM. Butter.

Butyrum Antimonii. *Murias antimonii.* Butter of antimony.

BUX'US. From πυκαζω, to become hard. The box-tree.

BYRETH'RUM. A sort of cap filled with cephalic substances.

BYSAU'CHEN. From βυω, to hide, and αυχην, the neck. Morbid stiffness of the neck.

BYSSOS. Vulva.

BYTHOS. Βυθος, deep. Applied by Hippocrates to the bottom of the stomach.

C.

CAA-APIA. Dorstenia braziliensis.

CAA-ATAY'A. A Brazilian plant, possessing bitter and cathartic properties.

CAACICA. Euphorbia capitata.

CABAL. Traditionary knowledge.

CAB'ALIST. *Cabalista.* One instructed in traditionary knowledge.

CABBAGE. Brassica.

CABBAGE TREE. Geoffræya jamaicensis.

CABUREIBA. Myroxylon peruiferum.

CACÆ'MIA. *Cachæmia;* from κακος, bad, and αιμα, blood. A bad condition of the blood.

CA'CHALOT. The spermaceti whale.

CACHEX'IA. From κακος, bad, and εξις, a habit. A depraved habit or condition of body, as a scorbutic, cancerous, &c.

CACHINNA'TION. From *cachinno,* I laugh. Excessive laughter, a symptom of hysterical, and other affections.

CACHOLONG. A species of quartz.

CACHO'RE. Catechu.

CACHUN'DE. A medicine composed of a number of aromatic ingredients, perfumes, earths, &c., supposed, in India, to possess wonderful therapeutical virtues.

CACOCHO'LIA. From κακος, bad, and χολη, bile. A vitiated or depraved condition of the bile.

CACOCHROI. From κακος, bad, and χροα, color. Diseases in which the complexion is changed.

CACOCHYL'IA. From κακος, bad, and χυλος, chyle. Depraved chylification.

CACOCHYM'IA. From κακος, bad, and χυμος, juice, humor. A morbid or depraved condition of the humors.

CACOCNE'MOS. From κακος, bad, κνημη, the leg. A defect in the legs.

CACOCORE'MA. From κακος, bad, κορεω, I purge or cleanse. A medicine which purges off morbid, or vitiated humors.

CACODÆ'MON. From κακος, bad, and δαιμων, a spirit. An evil spirit, supposed to preside over the bodies of men, and to afflict them with many disorders. The nightmare.

CACO'DIA. From κακος, bad, and ωζω, to smell. Anosmia, or defect in the sense of smelling.

CACOPATHI'A. From κακος, bad, and παθος, affection. A disordered state of mind.

CACOPHO'NIA. Defective articulation.

CACOPRA'GIA. From κακος, bad, and πραττω, I perform. A morbid condition of the chylopoietic organs.

CACOSIT'IA. From κακος, bad, and σιτιον, aliment. An aversion to food.

CACOSPHYX'IA. From κακος, bad, and σφυξις, pulse. A bad condition of the pulse.

CACOS'TOMUS. From κακος, bad, and στομα, a mouth. A deformity, or diseased condition of the mouth.

CACOTHYM'IA. From κακος, bad, and θυμος, the mind. A vitious, or diseased condition of mind.

CACOTROPH'IA. From κακος, bad, and τροφη, nutriment. Bad nutrition.

CACTUS OPUN'TIA. *Opuntia.* The Indian fig.

CADA'VER. From *cadere*, to fall. A body deprived of life; a dead body.

CADIA. A leguminous plant of Egypt.

CADMI'UM. A metal found in carbonate of zinc, of a compact texture, and a bluish-grey color, approaching tin.

CADTCHU. Catechu.

CÆCAL. Belonging to the cæcum.

CÆ'CITAS. From *cæcus*, blind. Blindness. See Caligo and Amaurosis.

CÆCUM. From *cæcus*, blind. The cæcum or blind gut is so called from its being perforated only at one end.

CÆCUS. Blind. A term applied, in *Anatomy*, to cavities or holes which have but one opening.

Cæcum Foramen. A small cavity in the frontal bone at the inferior extremity of the external coronal crest.

CÆTCHU. Catechu.

CAJEPUT OIL. *Cajuputi oleum.* The volatile oil of the leaves of *melaleuca cajaputi.*

CAIGNE, FRANCOIS. Author of a Dissertation on the Teething of Infants of the First Year, published at Paris, 1802.

CALA'BA. The Indian mastich-tree.

CAL'AMINE. A native carbonate of zinc. It is used in the manufacture of brass.

CALAMINT. Milissa calamintha.

CALAMINTHA. Common calamit.

CALAMITA. Dry styrax.

CAL'AMUS. The name of a genus of plants.

Calamus Aromaticus. Acorus calamus; sweet flag-root.

Calamus Draco. The plant which yields dragon's blood.

Calamus Saccharinus. *Calamus Indicus.* The common sugar-cane.

Calamus Scripto'rius. A small cavity, or furrow, at the bottom of the fourth ventricle of the brain, so called from its resemblance to a pen.

CALCA'NEUM. From *calx*, the heel. The os calcis.

CALCA'REOUS. From *calx*, lime. Containing lime; of the nature of lime.

Calcareous Spar. Crystallized carbonate of lime.

CALCARIUS LAPIS. Limestone.

CALCEDONY. A mineral, so called from having been found by the ancients in Calcedon, in Asia Minor, supposed to be pure silica with a little water.

CALCIG'EROUS CELLS. The cells of the bony or dentinal part of a tooth are so called by professor Owen.

CALCINA'TION. Oxydation. The act of submitting to a strong heat any infusible mineral substance for the purpose of depriving it, either of its water, or any other volatilizable substance entering into its composition, and thus reducing it to ashes or cinders.

CALCINATUM MAJUS POTERII. Mercury dissolved in nitric acid, and precipitated with salt and water.

CALCIS AQUA. Calcis liquor. Lime-water.

Calcis Chloridum. Chloride of lime.

Calcis Murias. Muriate of lime; chloride of lime.

Calcis Os. The bone of the tarsus which forms the heel.

Calcis Oxymurias. Chloride of lime.

Calcis Sulphure'tum. *Hepar calcis;* sulphuret of lime.

CALCIUM. The metallic basis of lime.

CALC SPAR. Crystallized carbonate of lime. Calcareous spar.

CALCULIF'RAGUS. From *calculus*, a stone, and *frango*, to break. A stone-breaker; an instrument for breaking a stone in the human body—a lithontriptic instrument.

CAL'CULI, ARTIC'ULAR. Calculi arthritic.

Calculi, Arthrit'ic. Concretions formed in the ligaments, and within the capsules of the joints of persons affected with gout.

CALCULI, BIL'IARY. Biliary concretions; gall-stones.

CALCULI IN THE EARS. Hard concretions formed in the meatus auditorius externus.

CALCULI, LACH'RYMAL. Concretions formed in the lachrymal ducts.

CALCULI, PAN'CREATIC. Concretions formed in the pancreas.

CALCULI OF THE PINE'AL GLAND. Concretions formed in the pineal gland.

CALCULI, SALIVARY. Concretions of a calcareous kind formed in the substance of the salivary glands, or in their excretory ducts, or upon the teeth. See Odontolithos; and Salivary Calculus.

CALCULI OF THE STOMACH AND INTESTINES. Concretions formed in the stomach and intestines.

CALCULI OF THE TONSILS. Concretions formed in the tonsils.

CALCULI, URINARY. Concretions of an earthy nature formed in the bladder.

CALCULUS. Diminutive of *calx*, a limestone. An earthy concretion formed in the bladder, kidneys, mouth, or some other part of the body.

CALEFA'CIENT. *Calefaciens;* from *calidus*, warm, and *facio*, I make. To excite warmth. Any substance, as mustard, pepper, &c., capable of exciting warmth in the part to which it is applied.

CALENTU'RA. From *calere*, to be warm. Applied to a species of delirium to which sailors are subject in the torrid zone; a kind of phrenitis.

CAL'IBER. The diameter of any cylindrical body.

CALIDUM ANIMALE. Animal heat.

CALI'GO. A mist. Obscurity of vision, caused by a speck on the cornea; also, the speck itself.

CALIGO LENTIS. Cataract.

CALIX. *Infundibulum;* from καλιξ, a cup. Small membranous canals which surround the papillæ of the kidneys, and open into the pelvis.

CALLIDON'TIA. From καλος, beautiful, and οδους, a tooth. The art of preserving the beauty of the teeth. See Dental Hygiene.

CALLOS'ITY. *Callositas.* Preternatural hardness.

CALLOSUS. Hard.

CALLOUS. *Callosus.* Hardened; indurated, as the edges of an ulcer.

CALLUS. The bony matter thrown out between, and uniting the fractured extremities of a bone. It is also applied to induration of a soft or fleshy part.

CALOMEL. *Calomelas;* from καλος, good, and μελας, black. A term originally applied to black sulphuret of mercury, but now to *hydrargyri chloridum mite.*

CALOR. Heat.

CALOR'IC. *Caloricum;* from *calor*, heat. The matter, cause, or principle of heat.

CALORIFICA'TION. *Calorificatio;* from *calor*, heat, and *fieri*, to become. The function of producing heat.

CALORIM'ETER. An instrument, by which the whole quantity of absolute heat existing in a body in chemical union, can be ascertained.

CAL'THA. Καλθα, corrupted from χαλχα, yellow. The wild marigold is so called from its color.

CALTHA PALUSTRIS. *Populago.* The common single marsh marigold.

CALUM'BA. Calumbo; a root having an aromatic smell, bitter, pungent taste, and tonic and antiseptic properties.

CALVA. From *calvus*, bald. The scalp or upper part of the cranium is so called, because it often becomes bald; *calviatum*, baldness. The loss or absence of hair upon the top of the head.

CALX. From *kalah*, to burn. Chalk, lime. Also, an oxyd.

CALX ANTIMONII. Oxyd of antimony.

CALX CUM KALI PURO. Potash with lime.

CALX HYDRARGYRI ALBA. Ammoniated mercury.

CALX, METALLIC. A metal which has undergone calcination, combustion, or some other equivalent process.

CALYX. Καλιξ, from καλυπτω, to cover. The outermost of the enveloping organs of a flower. The flower cup.

CAMBO'GIA. From Cambodia, in the East Indies, where it is obtained. Gamboge.

CAM'BUI. The wild American myrtle of Piso and Margrave.

CAM'ERA. A chamber or cavity. Applied to the chambers of the eye.

CAMERA LU'CIDA. An instrument making the image of any object appear on a wall in a light room.

CAMERA OBSCURA. An optical apparatus for throwing the images of external objects on a white surface, and representing them in their proper colors and shapes.

CAMINGA. Canella alba.

CAMPANI, A. An Italian dentist, and author of a small work on Toothache, the Diseases of the Teeth and the manner of Curing them, published at Florrinza, 1789.

CAMPEACHY WOOD. Logwood; so called, because it is brought from Campeachy.

CAMPHINE. Re-distilled oil of turpentine, used for lighting.

CAMPHIRE. Camphor.

CAMPHOR. From the Arabian *caphur or kamphur*. A concrete substance, prepared by distillation, of a crystalline texture, strong fragrant odor, and possessing narcotic and diaphoretic properties.

CAMPHOROSMA MONSPELIACA. From *camphora*, and οσμη, smell. The systematic name of the plant called *camphorata*. The stinking ground-pine.

CAMPYLO'TIS. From καμπυλος, bent. A preternatural incurvation of a part; also, a distortion of the eyelids.

CANADEN'SIS. Canadian; the name of a balsam.

CANAL. *Canalis; ductus; meatus.* A channel or passage for fluids or solids.

Canal, Alimen'tary. The canal leading from the mouth to the anus.

Canal, Arachnoi'dian. A canal, supposed to have been discovered by Bichat, formed by the extension of the arachnoid over the transverse and longitudinal fissure of the brain, and which surrounds the vena magna galeni. Cruveilhier denies the existence of this canal.

Canal, Intestinal. That portion of the alimentary canal formed by the intestines.

CANALIS ARTERIOSUS. Arterial duct; a vessel through which the blood passes in the fetus from the pulmonary artery into the aorta, but which is obliterated after birth.

Canalis Semicircularis. The semicircular canal. There are three in the posterior portion of the labyrinth of each ear, which open by five orifices into the vestibulum.

Canalis Venosus. A canal which conveys the blood in the fetus from the *porta* of the liver, to the ascending *vena cava*, but it ceases to exist after birth.

CANCEL'LI. Lattice-work. The reticular or spongy texture of bones.

CANCEL'LUS. From *cancer*, a crab. A species of crayfish, called Bernard the hermit, and the wrong heir, which is supposed to cure rheumatism, when rubbed on the affected part.

CANCER. Καρκινος, *carcinos, lupus cancrosus, ulcus cancrosum*, a crab. A disease so called, either because it exhibited large veins like the claws of a crab, or on account of the hideous appearance which the ulcerated parts present. It is a scirrhous tumor, which terminates, generally, in a fatal ulcer.

Cancer Munditorum. Chimney sweeper's cancer. An irregular superficial, painful ulceration, occurring in the scrotum of chimney sweepers.

CANCEROUS. Pertaining to cancer.

CAN'CROID. *Cancroideus;* from *cancer*, and ειδος, form. Having the appearance of a cancer.

CANCRO'RUM CHELÆ. Crab's stones or claws, consisting of carbonate and phosphate of lime.

CANCROSUS. Cancerous.

CANCRUM ORIS. Canker of the

mouth; a spreading ulceration of the gums. "Any inflammation of the mouth may be attended with ulceration; but the complaint here referred to, is essentially ulceration, appearing in this form at the commencement, and presenting characters which entitle it to rank as a distinct affection. Dr. Symonds considers *cancrum oris* as a synonyme of gangrene of the mouth; but such is not the ordinary application of the term. It is true that the ulcers, usually called canker, may, in constitutions predisposed to gangrene, terminate in that affection, but in the great majority of cases they do not appear to have such a tendency, and are a comparatively innocent disease.

"The complaint usually makes its appearance in the gums or inside of the cheeks or lips; though it may occur in any part of the mouth, or in the fauces. When first noticed it is always in the form of an ulcer, often of considerable size, with a yellowish white or greyish surface, and an inflamed border. The neighboring parts are also inflamed and swollen, and when the ulcer is in the cheeks or lips, the tumefaction is observed externally, the cheek of the side affected being red, shining and prominent. The swelling in the mouth is sometimes so considerable as to render an examination of the sore difficult. There is a very copious flow of saliva; and the breath is very offensive, though the fetor is distinct from that of gangrene. The ulcer is generally painful, and is usually attended with fever and constipation. It may continue for weeks or even months without very serious consequences; though, when upon the gums, it sometimes lays bare the alveolar processes. I have never known it to penetrate through the cheek, nor to end fatally; though what might be the ultimate consequences of continued neglect, I am unable to say. I have always found it to yield to treatment.

"Patches of *pseudo-membranous inflammation* now and then occur in the mouth, bearing much resemblance to the ulcerative affection above described, and possibly constituting, in many instances, its first stage. The patches covered with the plastic effusion are whitish at first, then greyish, and sometimes at last livid or blackish. In consequence of the inflammation around them, they appear set in the membrane, and hence, bear a close resemblance to ulcers. They end either in a gradual absorption of the pseudo-membranous matter, or by a destruction of a portion of the mucous tissue, when an ulcer results.

"The causes of the cancrum oris, are obscure. It generally occurs in children from two to six years old; has been ascribed to a debilitated habit of body, arising from deficient or improper food, bad air, want of cleanliness, &c., and is said to prevail most among the poor. I have seen it, however, in children otherwise apparently healthy, well fed, and well provided for in all respects," &c.*

The disease evidently has some of the characteristics of grangrenous inflammation of the gums, as well as of other affections, which consist of ulceration of the gums, and exfoliation of the alveolar processes; yet it differs from both of these, in many particulars, and, therefore, should not be confounded with either. The last named affection, we believe, never occurs among the wealthy, but seems always to be confined to children of the poor, and to be dependent upon defective nutrition, bad air, and a cachectic habit of body. Cancrum oris is met with among children of the wealthier classes of society, and in other respects in the enjoyment of health. Prof. Wood is of the opinion that it results from some inappreciable disturbance of the digestive organs. The differences between it and grangrenous inflammation of the mouth have been very clearly pointed out above, by this eminent physician, and able medical writer.

In the treatment of the disease, Prof.

* Wood's Practice of Medicine.

Wood says, "from two to six grains of calomel may be given at the commencement, either associated with some other cathartic, such as rhubarb or jalap, in order to insure its operation upon the bowels, or followed, should it not operate in six or eight hours, by a dose of castor oil. The bowels may afterwards be kept open by the occasional administration of castor oil, magnesia or its carbonate, or the sulphate of magnesia; small doses of the neutral mixture, or of antimonial wine should be given when the fever is considerable; and, if the breath should be sour, a few grains of the bicarbonate of soda in carbonic acid water, repeated three or four times a day, will be found useful. In protracted cases, attended with debility, it may be found advisable to have recourse to the mineral acids, and infusion of bark or sulphate of quinia. In the febrile state, the diet should consist exclusively of farinaceous liquids. In the absence of fever, milk may be allowed; and, in cases of debility, animal broth, jelly, &c. Sour and ascescent food should be avoided.

"But the local treatment is chiefly to be relied on. Various applications have been recommended. Among these, are mouth waters of tincture of myrrh, and with Peruvian bark, dilute mineral acids with honey, and solution of alum. I have found nothing so useful as a solution of sulphate of zinc, in the proportion of fifteen or twenty grains to the fluid ounce of water, applied twice or three times a day to the ulcer, by means of a camel's-hair pencil, and continued until the yellowish white exudation is removed, and the surface assumes the healthy reddish hue. With this application I have in no instance failed to effect a cure." Prof. W. is also of the opinion that a strong solution of the sulphate of copper, or nitrate of silver, might prove equally efficacious, though he does not seem to speak from experience.

For the purpose of correcting the fetor of the breath, the mouth should be gargled six or eight times a day with some aromatic lotion or wash.

CANDELA FUMALIS. A perfumed or medicated candle, used for purifying the air.

CANDELARIA. From *candela*, a candle. Mullen is so called from the resemblance of its stalk to a candle. See Verbascum.

CANEL'LA. The name of a genus of plants.

Canella Alba. Winteria aromatica. The laurel-leaved canella, the bark of which is a stimulant and pungent aromatic.

CANINE. Pertaining to, or partaking of the nature of, a dog.

Canine Fossa. A depression in the outer surface of the superior maxillary bone, above the canine or cuspid tooth.

Canine Teeth. *Dentes canini, cynodontes, dentes laniarii, dentes angulares, cuspidati, conoides, eye-teeth.* See Cuspid Teeth.

CANI'NUS. From *canis*, a dog. A cuspid tooth is so called, because it resembles that of a dog. See Cuspid Teeth. It is also the name of a muscle, the levator anguli oris, because it is situated near the canine tooth.

CANIRAM. Strychnos nux vomica.

CANKER. A corroding ulcer in the mouth. See Cancrum Oris.

CANNA. A reed or hollow cane. The fibula has been so called from its resemblance to a reed.

Canna Fistula. See Cassia Fistula.

Canna Indica. See Sagittaria Alexipharmica.

Canna Major. The tibia.

Canna Minor Cruris. The fibula.

CANNULA. A surgical instrument. See Canula.

CAN'THARIS. From κανθαρος, a beetle, to which tribe it belongs; *Musca Hispanica; lytta vesicatoria; cantharides.* The blistering fly, and Spanish fly.

Cantharis Vittata. The potato fly.

CANTHUS. Κανθος. The angle or corner of the eye.

CANULA. Diminutive of *canna*, a reed. *Cannula*. A small tube used in surgery.

CAOUTCHOUC. Indian rubber; gum elastic. The concrete juice of the *hævea (seu hevea) guianensis; jatropha elastica; siphonia elastica; ficus indica;* South American trees. It is remarkable for its elasticity, and being insoluble in water and alcohol, is applied to various valuable purposes. It is used in the manufacture of cathetors, bougies, pessaries, and, recently, in the prosthesis of the velum palati. It did not, however, answer very well at first for this latter purpose, as the secretions of the mouth and nasal cavities soon destroyed it. But this objection has, within a few years, been completely obviated by the discovery of a peculiar method of preparing it, made by Mr. Goodyeare, a celebrated manufacturer of New Haven, Connecticut. Mr. Stearns, a surgeon of London, who has employed a preparation of it made by this gentleman, commends it very highly. Its value in the construction of artificial palates, with a velum, has also been tested by by others. See Artificial Palates.

CAPHORA. Camphor.

CAPI'BARA. A rodent quadrupid of the largest size, found along the rivers of South America. The water-hog.

CAPILLARY. *Capillaris;* from *capillus*, a little hair. Resembling a hair; hair-like; small. It is applied to the extreme radicals of the arteries and veins. Also, to parts of plants which bear a resembance to hairs.

CAPIL'LUS. The hair.

CAPITAL. *Capitalis.* Belonging to the head.

CAPITALIA REMEDIA. Remedies for the head.

CAPITILU'VIUM. From *caput*, the head, and *lavare*, to wash. A lotion or bath for the head.

CAP'NOMAN'CY. From καπνος, smoke, and μαντεια, prophecy. Divination by smoke. Among the ancients this was done by burning the seed of poppy and other herbs, and observing the fancied figures which the smoke assumed.

CAP'PA. The monk's-hood has been so called from its supposed resemblance to the head.

CAPPING THE NERVE OF A TOOTH. An operation recommended by Dr. Koecker for the purpose of protecting an exposed dental pulp from injury in filling a tooth. See Filling Teeth.

CAPREOLA'RIS. From *capreolus*, a tendril, *Capreolatus*. Twisted; contorted; applied by some to the spermatic vessels.

CAP'ROMYS. From καπρος, a boar, and μυς, a mouse. A genus of rodent mammalia, exclusively confined to the island of Cuba. They have four molar teeth on each side of each jaw, with three outer, and one inner cusp in the upper teeth, and in the lower this arrangement is reversed.

CAPSICUM. From καπτω, to bite; because of its effect on the mouth. The name of a genus of plants.

Capsicum Annum. Cayenne pepper; Guinea pepper.

CAPSULA. Diminutive of *capsa*, a chest or case. A capsule. A membraneous bag enclosing a part of the body, as the capsular ligament, the capsule of the crystalline lens, &c. The matrices or sacs of the teeth are sometimes called capsules. In *Botany*, it is applied to the membraneous pericarpium or seed-vessel of a plant.

CAPSULAR. *Capsularis.* Having the form, or partaking of the nature, of a capsule.

CAPSULE. Capsula.

Capsule of Glisson. A dense cellular membrane surrounding the vena portæ in its most minute ramifications in the liver, described by Glisson.

CAPURON. Author of an Essay upon the Luxation of the Lower Jaw, published at Paris, in the year 9.

CAPUT. The head, cranium, or scull; the upper extremity of a bone, as the head of the femur. Also, the origin of a muscle, as the long head of the biceps; and it is sometimes applied to a protuberance resembling a head, as also to the beginning of a part.

Caput Gallinag'inis. *Verumontanum.* A protuberance in the urethra in men, before the neck of the bladder.

Caput Monachi. Leontodon taraxacum.

Caput Obstipum. Wry neck.

Caput Purgum. A remedy which causes a defluxion from the head, as an *errhine, sialogogue,* &c.

Caput Succeda'neum. A swelling of the head of the fetus, which occurs in certain cases of labor.

Caput Testis. The epydidymus.

CARABAC'CIUM. The name of a a yellowish aromatic wood of India, supposed to possess stomachic and anti-scorbutic properties.

CAR'ABUS, A genus of coleopterous insects. Two species, the *crysocephalus* and *ferrugineus,* were at one time much vaunted as a remedy for tooth-ache, and even quite recently they were highly recommended in Germany for this purpose. They were first rubbed between the thumb and finger, and then applied to the affected tooth and gum. See Coccinella Septempunctata.

CARAN'NA. *Carannæ gummi, caragna.* A concrete resinous substance, having an aromatic smell, and bitter taste, formerly used as an ingredient in vulnerary balsams, and in discutent and strengthening plasters.

CA'RAT. From the Arab *kyrat,* a weight, or from κέρατιον, a small weight. A weight of four grains, used in weighing diamonds. It is also used in reference to the fineness of gold. For example, suppose the mass spoken off, "to weigh 24 carats, of twelve grains each; and the pure gold is called *fine.* Thus, if gold be said to be 22 carats fine, or standard, it is implied that $\frac{22}{24}$ths are pure gold, and $\frac{2}{24}$ths alloy. In the process of assaying gold, the real quantity taken is very small, generally from six to twelve grains; and this is termed the *assay pound.* It is sub-divided into 24 carats, and each carat into four assay grains, and each grain into quarters; so that there are three hundred and eighty-four separate reports for gold. When the gold assay pound is only six grains, the quarter assay grain only weighs $\frac{1}{6144}$th of a grain. This will give some idea of the accuracy required in the weights and scales used for such delicate operations."*

CARAWAY. Carum.

CARBO. *Carbo ligni.* Charcoal.

Carbo Anima'lis. *Carbo carnis.* Animal charcoal. Ivory black.

CAR'BON. From *carbo,* coal. In *Chemistry,* this term is used to signify a pure combustible base of the varieties of charcoal and other carbonaceous substances. The diamond is the purest form of crystallized carbon.

CAR'BONAS. A carbonate.

CARBONATE. A salt formed by the union of carbonic acid, with a salifiable base.

Carbonate of Lime. Calcis carbonas.

Carbonate of Magnesia. Magnesiæ carbonas.

Carbonate of Potassæ. Potassæ carbonas.

Carbonate of Soda. Sodæ carbonas.

CAR'BONATED. *Carbonatus, Aëratus.* That which is combined with carbonic acid.

CARBONIC ACID. *Acidum carbonicum. Fixed air; carbonaceous acid; mephitic acid.* A transparent, colorless, gaseous substance, without smell, irrespirable, and incapable of supporting combustion. It is a compound of carbon and oxygen.

CARBUNCLE. See Anthrax.

CARBUNCULUS. Diminutive of *carbo,* a burning coal. A carbuncle.

CARBURET. *Carburetum.* A com-

* Brand's Encyclopædia.

pound of carbon with any simple combustible substance. For example, carburetted hydrogen, is hydrogen holding carbon in solution. Steel is a carburet of iron.

CARBURET OF SULPHUR. A liquid compound of carbon and sulphur. It was formerly called alcohol of sulphur, and is now obtained by passing the vapor of sulphur over ignited charcoal.

CARBURETTED HYDROGEN. *Carbon and hydrogen; light inflammable air; olefiant gas. Hydroguret of carbon.* There are two gaseous compounds of carbon and hydrogen, *olefiant gas*, or oil making gas, so called because it forms an oily compound with chlorine, and *light carburetted hydrogen*, found in some coal mines, which is known by the name of *fire damp*, and is the cause of the explosions which sometimes took place previously to the invention by Sir Humphrey Davy, of the safety lamp. It is also evolved from the mud of stagnant pools and ditches. Olefiant gas is obtained by distilling a mixture of one part of alcohol and two in bulk of sulphuric acid, and collected over water, which is said to absorb more than one-seventh of its volume of the gas.

CAR'CAROS. From καρκαιρω, to resound. A fever in which the patient is affected with tremor and unceasing noise in his ears.

CARCINO'MA. From καρκινος, a crab, a cancer. See Cancer.

CARCINOMA HÆMATODES. *Hæmatodes fungus. Fungus hæmatodes.* Most authors use the term in the same sense as cancer. Some apply it to incipient cancer, and some to that species of cancer which resembles cerebral substance.

CARCINOM'ATOUS. Relating to, or having the nature of, a cancer.

CARDAMI'NE. The name of a genus of plants.

CARDAMINE PRATEN'SIS. The cuckoo-flower, or ladies' smock.

CAR'DAMOM. *Cardamomum;* from καρδια, the heart, because it was supposed to strengthen the heart. The cardamom. See Amomum Cardamomum.

CARDAMOMS, CEYLON. The grains of Paradise.

CARDAMOMUM PIPERATUM. The common cardamom.

CAR'DIA. Καρδια, the heart. Also, the upper orifice of the stomach.

CAR'DIAC. *Cardiacus*, from καρδια, the heart. The superior opening of the stomach. Pertaining to the heart.

CARDIAC ARTERIES. *Coronary arteries.* Two arteries given off by the aorta above the free edge of the sigmoid valves, and distributed to both surfaces of the heart.

CARDIAC NERVES. The nerves of the heart. They are distinguished into right and left, and arise from the cervical ganglia.

CARDIAC PLEXUS. A network formed by the cardiac nerves at the back part of the aorta, near the heart.

CARDIAC VEINS. The coronary veins. They are four in number, two anterior, and two posterior, and open by one orifice into the right auricle of the heart.

CARDIAG'RAPHY. *Cardiagraphia*, from καρδια, the heart, and γραφη, a description. A description of the heart.

CARDIAL'GIA. From καρδια, the cardia, and αλγος, pain. Pain of the stomach. Heartburn.

CARDIALO'GIA. From καρδια, the heart, and λογος, a discourse. A treatise on the heart.

CARDIATOM'IA. From καρδια, the heart, and τεμνειν, to cut. Dissection of the heart.

CARDIATROPH'IA. Atrophy of the heart.

CARDIELCO'SIS. From καρδια, the heart, and ελκος, an ulcer. Ulceration of the heart.

CARDIOCE'LE. From καρδια, the heart, and κηλη, rupture. Rupture of the heart.

CARDION'CHUS. From καρδια, the heart, and ογκος, a tumor. An aneurism of the heart, or aorta near it.

CARDIOT'ROMUS. From καρδια,

the heart, and τρομος, tremor. Feeble palpitation, or fluttering of the heart.

CARDI'TIS. From καρδια, the heart, and *itis*, inflammation. Inflammation of the heart.

CARDO. A hinge. The articulation called ginglymus.

CAREBA'RIA. From καρη, the head, and βαρος, weight. Heaviness of the head.

CARICUM. Named so after its inventor, Caricus. *Carycum*. A detergent ointment for ulcers.

CARIES. *Nigritis osium*. Ulceration of bone.

Caries Dentium. See Caries of the Teeth.

Caries of the Teeth. Decay of the teeth. A chemical decomposition of the earthy part of any portion of a tooth, accompanied by partial or complete disorganization of the animal framework of the affected part.

Believing the disease to be the result of inflammation, Mr. Thomas Bell has substituted for caries, the term gangrene, supposing the latter to convey a more correct idea of the true nature of the affection; and Mr. Hunder, in treating of the disease, says, "It appears to deserve the name of mortification." Mr. Fox, also, speaks of it as a disorder which terminates in mortification, but at the same time designates it by the name of caries. This latter term, if its meaning be restricted to *ulceration*, does not convey a correct idea of the exact nature of the disease, nor do the words *nigritis osium*, black bone, from which some writers derive the word, as the decayed part of a tooth is not always of this color. Still, as it has been generally sanctioned, and for want of a better term, it may be well to continue its use. Mr. Cooper derives the word caries, from χειρω, to abrade—a definition which seems equally inapplicable. The term caries, however, is certainly more appropriate than gangrene or mortification, as either of the latter might be applied to another affection of the teeth; namely, *necrosis*, with quite as much propriety, as to the one now under consideration. Besides, according to the usual medical acceptation of the two former of these terms, their use is restricted to the death of a soft part, and not to a like condition of an osseous tissue, which is designated by the latter.

In his explanation of the nature of dental caries, Mr. Bell is equally incorrect. He defines it "*mortification of any part of a tooth, producing gradual decomposition of its substance.*" The definition would have been more correct, if he had said, mortification of any portion of a tooth, preceded or accompanied by partial or complete decomposition of its substance, for this always precedes, or is, at least, simultaneous with the death of the part.

There is no disease to which the teeth are liable, more frequent in its occurrence, or fatal in its tendency, than caries. It is often so insidious in its attacks, and rapid in its progress, that every tooth in the mouth is involved in irreparable ruin, before its existence is scarcely suspected.

Its presence is usually first indicated by an opaque or dark spot on the enamel; and, if this be removed, the subjacent bone will exhibit a black dark-brown, or whitish appearance. It usually commences on the outer surface of the bone of the crown of the tooth, under the enamel; from thence it proceeds towards the centre, until it reaches the pulp cavity.

If the diseased part is of a soft and humid character, the enamel, after a time, usually breaks in, disclosing the ravages which it has made on the subjacent bone. But this does not always happen; the tooth sometimes remains nearly perfect, until its whole interior structure is destroyed.

There is no portion of the crown or neck of a tooth exempt from the disease; yet, some parts are more liable to be first attacked by it than others; as, for example, the depressions on the grinding sur-

faces of the molares and bicuspides, the approximal sides of all the teeth—the posterior or palatine surfaces of the lateral incisores; and, in short, wherever an imperfection exists in the enamel.

The outer portion of a tooth, as has been stated in a preceding place, is much harder than the inner or osseous part, and by far less easily acted on by the causes that produce the disease. It is, however, notwithstanding, occasionally affected by it, and when it does attack it, it develops itself more frequently on the anterior or labial surface near the gum, than on any other part—sometimes commencing at a single point, and at other times at a number of points. When the enamel is first attacked, it is usually called erosion; but as the enamel does not contain so much animal matter as the subjacent osseous structure, the diseased part is washed away by the saliva of the mouth, while in the bony part of the tooth, it, in most instances, remains, and may be removed in distinct lamina, after the calcareous molecules have been decomposed.

In teeth that are very hard, the decayed part is of a much firmer consistence, and of a darker color, than in soft teeth. Sometimes it is black; at other times it is of a dark or light brown; and at other times again, it is nearly white. As a general rule, the softer the tooth, the lighter, softer, and more humid the decay. The color of the decayed part, however, may be, and doubtless is, in some cases, influenced by other circumstances—perhaps by some peculiar modification of the agents, upon the presence of which, the disease is dependent.

Commencing externally beneath the enamel, the disease proceeds, as we have before stated, towards the centre of the tooth, destroying layer after layer, until it reaches the lining membrane, and leaving each outer stratum softer, and of a darker color than the subjacent one.

The appellations, deep seated, superficial, external and internal, simple and complicated, have been applied by some writers to this disease. These distinctions are unnecessary, since they only designate the different stages of the disease. By complicated decay, is meant a caries that has penetrated to the pulp cavity of the tooth, and is accompanied by an inflammation and suppuration of the lining membrane, and the death of the organ. The lining membrane, however, is not always inflamed by exposure, nor suppurated by inflammation.

Equally unnecessary is the classification adopted by M. Duval, to designate the differences of color and consistence exhibited by the decayed part. He enumerates seven varieties or species, which are as follows: calcareous, peeling, perforating, black, deruptive, stationary and wasting.

The first, he employs to designate that affection of the teeth which is characterized by the appearance of a white opaque spot on the enamel, whereby it is rendered brittle, and oftentimes caused to break. The second, if not identical with, is at least analogous to the first—the difference only consisting in the color of the enamel. The third, from a defect in almost every part of the enamel covering the crowns of the teeth, attacks the molares and sometimes the bicuspides, at a number of points simultaneously, causing the speedy destruction of the organs. The fourth, he describes as not occurring until from the fifteenth to the thirtieth year, and as being principally confined to persons of a consumptive habit, and those disposed to rachitis. The color of the decayed part of a tooth in individuals of these habits of body, is sometimes black, but more frequently white. Black caries, as it is called, is oftener met with in the teeth of persons of good constitutions, and, as has previously been remarked, in hard than in soft teeth.

The fifth species, or deruptive, he represents as that, which attacks the front teeth of individuals of consumptive habits near the necks of the organs, extend-

ing downwards towards their roots, and forming a brownish semicircular groove. The sixth is that description which, after having penetrated a certain distance into the substance of the tooth, becomes stationary. The seventh and last species, is that which is characterized by the gradual wasting of the grinding surfaces of the molares, dipping down in some places to a considerable depth, and leaving a smooth polished surface of a brown or yellowish color.

Finally, the roots of the teeth frequently remain firm in their sockets for years after their crowns and necks have been destroyed. They are less liable to decay than the crowns, but nature, after the destruction of the last, as if conscious that the former are of no further use, exerts herself for their expulsion, which is effected by the gradual wasting and filling up of their sockets. It often happens, that after this operation of the economy has been accomplished, they are retained in the mouth for months, and oftentimes for years, by their periostial connection with the gums. But this effort of nature, for the removal of the roots of the teeth, after their crowns have been destroyed by caries, is confined more to the back than to the front teeth, for it often happens that these last remain for a great number of years, and seemingly without much injury to the parts within which they are contained, after the destruction of their crowns.

Causes of Caries.—Caries of the teeth has been attributed to a great variety of causes, and to notice, in detail, the various opinions advanced by American, English, French, and German writers upon this subject, would be both inconsistent with the plan of a work like this, and unprofitable to the reader; the following brief exposition of a few of the most prominent writers will, therefore, have to suffice.

Fauchard, Auzebè, Bourdet, Lecluse, Jourdain, and most of the French writers of the eighteenth century, on the diseases of the teeth, as well as nearly all of the more modern French authors, though their views with regard to the causes of dental caries are exceedingly vague and confused, express the belief that the disease is, for the most part, the result of the action of chemical agents; such, for example, as vitiated saliva, the putrescent remains of particles of food lodged between the teeth, or in their interstices, acids, and a corrupted state of the fluids conveyed to these organs for their nourishment. They also mention certain states of the general health, mechanical injuries, sudden transitions of temperature, &c. &c., as being conducive to the disease. A similar explanation, too, of the cause of dental caries, is given by Salmon, the author of a Compendium of Surgery, published in London, 1644.

The foregoing is a general summary of the views entertained by most of the older writers with regard to the cause of the disease under consideration, and, if they are not strictly correct, we think we shall presently be able to show that they are not altogether erroneous.

In the English school of dental surgery, since the time of the publication of Mr. Fox's celebrated treatise on the Natural History and Diseases of the Teeth, and until quite recently, inflammation of the bony structure of these organs has been regarded as the proximate or immediate cause of the disease in question. Having discovered an identity of structure between the teeth and the other bones of the body, this author immediately concluded that the diseases of the one were identical with those of the other. This inference, it must be confessed, to one who has not made the diseases of the former a subject of close and critical investigation, would seem to be irresistible. But observation has proven it, so far as most of the diseases of the teeth are concerned, to be incorrect. By instituting a comparison between caries of the teeth and that of other bone, it will at once be perceived that there is not the slightest analogy

between the disease, as it occurs in the one, and manifests itself in the other. In the former it consists simply in a decomposition of the earthy basis of the organs, whereas, in the latter, it is analogous to ulceration in soft parts, and constantly discharges a fetid sanies, and frequently throws out granulations of fungous flesh. These are phenomena which dental caries never exhibit, and they establish a wide difference of character between it and the disease as occurring in the other osseous structures of the body.

But the promulgation of the doctrine of the vascularity of the teeth, not only led to the belief that caries of these organs was identical with caries of other bones, but it soon gave rise to the supposition, that, inasmuch as inflammation was the cause which determined it in the latter, it, also, produced it in the former.* Among the ablest advocates of this theory is Mr. Thomas Bell, but, notwithstanding, the support which it has received from his pen, it is opposed by facts which prove it, most conclusively, to be erroneous.

If inflammation of the bony structure of the teeth were the cause of caries, the disease would be as likely to develop itself in one part of a tooth as another. The root, the interior of the crown between the pulp-cavity and the enamel, would as frequently be the part first attacked as the external surface. Now what are the facts in relation to this matter? Does caries ever commence on the root of a tooth, or, between the pulp-cavity and the external surface of the dentinal part of the crown? Most assuredly not.

Again, among the causes which would be most likely to excite inflammation in these organs, are many of the operations performed for arresting the progress of the disease in question. For example, it is well known that filing and plugging, two of the most valuable operations in dental surgery, augment, for a time at least, the sensibility of the teeth, and increase their susceptibility to the action of heat and cold—agents which are regarded as among the most frequent and powerful of the exciting causes of inflammation. Now, if caries of the teeth were the result of inflammation, these operations, instead of arresting the progress of the disease, would cause a recurrence of it, and thus hasten the destruction of those upon which they had been performed.

Inflammation of the lining membrane of a tooth, may end in suppuration, but inflammation of its osseous structure alone, cannot cause a decomposition of any portion of its substance. For were such a change produced by any vital action, the part thus deprived of vitality, would be exfoliated, and its loss repaired by the formation of new bone, which never happens; and, hence, the author is led to conclude that the vital powers of the teeth are too weak to set up an action capable of effecting the decomposition, exfoliation, or restoration of any portion of their substance. Were their living powers more active, it is probable that their diseases would be more analogous to those of other bone.

If inflammation of their bony structure, then, is not the cause of the decay of these organs, how is the disease produced? This question can only be answered in one way. It is the result of the action of external chemical agents, and this explanation of the cause is not based upon mere hypotheses. It is supported by facts which cannot be successfully controverted. It is well known, that the fluids of the mouth, especially

* The doctrine of the vascularity of the teeth, as maintained by Fox, was the origin of the theory in England, that caries of these organs resulted from inflammation of their bony structure, but this theory had been advanced at a much earlier period in France. The celebrated French surgeon, Ambrose Paré, in treating on tooth-ache, says, "these organs, after the manner of other bones, suffer inflammation," and "quickly suppurate, become rotten," &c. &c. Book xvii, chap. xxv, page 387; published, 1579.

the mucous, when in a vitiated condition, are capable of decomposing the enamel of teeth not possessed of more than ordinary density. The truth of this assertion is demonstrated by the fact that dead teeth, and the crowns of human teeth, or those of animals, when employed as substitutes for the loss of the natural organs, are as liable to decay as living teeth, and the decayed part in the one, exhibits about the same characteristics that it does in the other. The same is true, too, with regard to all artificial teeth constructed from bone of any sort or ivory. If the disease was dependent upon any vital operation, neither dead teeth nor dental substitutes, composed of bone, would ever decay. But inasmuch as they do, it is reasonable to suppose that the cause which produces it in the one case is capable of producing it in the other.

Inflammation may influence the susceptibility of a tooth to the action of the causes which produce decay, and even the appearance of the decayed part, but it is not the immediate cause of the disease.

But, it may be asked, if caries be produced by the action of external corrosive agents, how is it that the disease sometimes commences within the bony structure of a tooth, and makes considerable progress there, before any indications of its existence are observed externally? We answer, it never does commence internally; it always attacks the external surface, sometimes the enamel first, but most frequently the bone beneath the indentations on the grinding surfaces of the bicuspides and molares, and on the approximal sides of the teeth, where this outer covering is frequently so fractured by the pressure of the organs against each other, that the fluids of the mouth find ready access to the subjacent osseous tissue. Decay may be gradually going on here for months and even years without any manifest signs of its existence; and the commencement of the disease in these places has led many to suppose that it had its origin within the osseous structure.

A thorough investigation of this subject, would, we should suppose, convince any one, that caries always commences externally. If it commenced in the interior or within the bony tissue, as is asserted by some English writers, "the sphere of usefulness," as is very justly remarked by Dr. Fitch, "on the part of the surgeon dentist," would be, "to say the least of it, extremely limited. For if their observations," alluding to those of Hunter, Fox, Koecker and other European writers, "are true, this disease, in its commencement, in one-half of the cases, is entirely out of the reach of medical aid."

But a still more absurd and ridiculous theory in regard to the cause of the disease is advanced by Mr. Charles Bew. He attributes it to the stoppage of the circulation in the organs, by the lateral pressure of the teeth against each other."

The exposure of the teeth, too, to sudden changes of temperature, as from heat to cold, or cold to heat, has been regarded almost from time immemorial as a cause of caries. The popular belief that cold is a cause of dental caries, is traced back to Hippocrates, who, in mentioning the parts of the body that are injuriously affected by it, includes the teeth.*

M. Ribe endeavors to prove that hot food is a cause of caries; because "man is the only animal accustomed to hot food, and almost the only animal affected with carious teeth." Had he instituted a comparison between the teeth of man and of brutes, and between the solvent agents to which they are respectively exposed, he might, doubtless, have traced the decay of the human teeth to its proper cause.

"The Indians of North America," remarks M. Tillaeus, "knew nothing of the inconvenience of carious teeth and

* Frigidum inimicum ossibus, dentibus, nervis, cerebro, spinali medullæ: calidum vero utile. *Aph. sec.* v.—par. 18.

debilitated stomachs, until after the introduction of tea amongst them." From this, one might suppose that tea caused the teeth to decay, and that dyspepsia was mainly attributable to its use.

The decay of the teeth of these people, since the introduction of tea amongst them, may, however, be much more plausibly accounted for. The susceptibility of these organs to the action of such causes as produce the disease, have been greatly increased by the impaired state of their constitutional health, occasioned, since this time, by the use of spirituous liquors, and the luxuries common to civilized life, in which they have indulged.

Particular sorts of diet, too, such, for example, as animal food, are said to exercise an unhealthy influence upon the teeth. In proof of the assertion, it is stated, that Indian nations, who live principally upon vegetables, scarcely over have a tooth to decay. But the same may also be said of those nations who subsist chiefly on animal diet, and who enjoy an equal degree of constitutional health. Savage and barbarous people are usually possessed of better teeth than those of civilized nations, because their bodies are not enervated by luxurious living. So far as diet is capable of affecting the health of the body, it may be considered as an indirect cause of caries; for the health of the child is not always dependent on the health of the parent, and, to the absence of constitutional disease during childhood, the period when the teeth of second dentition are being formed, is attributable the soundness of the teeth of savages.

With regard to the direct action which animal food is capable of exerting upon the teeth, even in a state of putrefaction, it is, unquestionably, less hurtful than vegetable substances. The fibres of animal matter, it is true, may be retained longer between the teeth than particles of vegetables, and by remaining there until they undergo chemical decomposition, and by irritating the gums and absorbing and retaining the secretions of the mouth, until they become vitiated, may thus indirectly contribute to the decay of these organs.

Those parts of the teeth that are covered with a thick smooth enamel, are, in the first instance, never attacked by caries, unless the enamel has previously sustained some injury; and it is not necessary that the injury should be very conspicuous, in order to permit agents capable of producing the disease to pass through it to the subjacent bone; they may be of so subtile a nature as to be able to penetrate even a very small fracture.

The existence of an acid in the mouth, capable of decomposing the teeth, is conclusively proven by Dr. S. K. Mitchell, in a letter addressed by him to T. C. Hope, M. D., of Edinburgh, dated October 10th, 1796, and the fact may be demonstrated by a very simple experiment, which consists in moistening a a piece of blue paper, dyed with turnsole, with the fluids of this cavity, obtained from between the teeth, where they have been retained until they have become vitiated. If this be done, the paper will be turned red. If, then, these fluids, when in a vitiated condition, are possessed of acid qualities, they must necessarily exert a deleterious action upon the teeth, by decomposing and breaking down their calcareous molecules, or in other words, causing their decay.

The acid detected by Dr. Mitchell was the septic, (nitrous,) but the acetic, lactic, oxalic, muriatic and uric have been detected in the saliva, in certain states of the general health. Donné. who has analyzed the fluids of the mouth with great care, says, the saliva, "in its normal state," is alkaline, but that "the secretion of the mucous membrane of the mouth is acid."* It is highly probable, therefore, that the acids which have been detected in the first of these fluids, may have been principally derived from the latter. Acidity of the

* Course de Microscope, p. 209.

saliva may, however, occur in certain morbid conditions of the general system. Donné says, he has observed it in patients affected with gastritis, and in children with aphthæ. It is to the action of these acids upon those parts of the teeth, where they are long retained, that caries is principally attributable.

The doctrine that the decay of the teeth is the result of the action of external corrosive agents, was first distinctly promulgated to the dental profession in this country, about the year 1821, by Drs. L. S. and Eleazar Parmly. These agents may consist of menstrua, formed by the decomposition or acetous fermentation of the remains of certain aliments, lodged in the interstices of the teeth, or of the fluids of the mouth, especially the mucous, in a vitiated or acidulated condition, or of acids administered during sickness, or used as condiments. The author is aware, that according to the tables of elective attractions, there are but four acids, namely, the oxalic, sulphuric, tartaric and succinic, which precede the phosphoric in their affinity for lime—hence it may be argued, that none of the other acids are capable of decomposing the teeth, or of affecting them in any other way prejudicially, but daily observation proves the contrary. By a series of interesting experiments performed by Dr. A. Westcott, in 1843, assisted by Mr. Dalrymple, it is proven that nearly all the acids, both mineral and vegetable, act readily upon the teeth. But the author is disposed to believe that caries of the the teeth results more frequently from the action of some acid contained in the salivary or mucous fluids of the mouth than from acids used in sickness or as condiments, or even such as may be generated by the acetous fermentation of particles of certain kinds of food lodged about the teeth.

This theory of the cause of dental caries, explains the *rationale* of the treatment at present adopted for arresting its progress. By the removal of the decomposed part and filling the cavity with an indestructible material, the presence of those agents, upon the chemical action of which the disease depends, is prevented, and the further progress of the decay arrested.

Among the indirect causes of caries, the following may be enumerated: depositions of tartar upon the teeth; a febrile or irritable state of the body; a mercurial diathesis of the general system; artificial teeth, improperly inserted, or of bad materials; roots of teeth; irregularity in the arrangement of the teeth; too great a pressure of the teeth against each other; and, in short, every thing that is productive of irritation to the alveolar and dental membranes, or gums.

Differences in the Liability of Different Teeth to Decay.

All teeth are not equally liable to decay, or in other words, not equally susceptible to the action of the causes that produce the disease. Teeth that are well formed, well arranged, and of a compact and close texture, seldom decay, and even when they are attacked by caries, the progress of the disease is less rapid than it is in imperfectly formed teeth, or teeth which are of a soft texture, or irregularly arranged.

The dentistry, shape, and arrangement of the teeth, are influenced by the state of the general health and that of the mouth, during the time of their ossification. If, at this period, all the functions of the body are healthily performed, these organs will be compact in their structure, perfect in their shape, and regular in their arrangement.

But, if on the other hand, the body, or any part of it, and especially the mouth, be morbidly affected, the teeth will be more or less imperfect, and consequently less capable, than they otherwise would be, of resisting the causes of decay, to which all teeth are, necessarily exposed.

An increased action in one portion of the system, is generally followed by a di-

minished one in some other part; thus, gastritis is usually produced by constipation of the bowels: puerperal fever, by a diminished action in the heart, and an increased action in the uterus, &c. Hence, we may conclude, that if the body, at an early age, be morbidly excited, its functions will be languidly performed; the process of assimilation checked; the regular and healthy supply of bony matter, stopped; and that, consequently, the teeth which are then formed, will be defective. Other parts of the body, in which constant changes are going on, if thus affected at these early periods, may afterwards recover; but if the teeth are badly formed, they must ever after continue so, because of their low degree of organization, and, consequently, be more liable to decay than those that are perfect.

"That the teeth acquire this disposition," says Mr. Fox, "to decay from some want of healthy action during their formation seems to be proved by the common observation, that they become decayed in pairs; that is, those which are formed at the same time, being in a similar state of imperfection, have not the power to resist the causes of the disease, and, therefore, nearly about the same period of time, exhibits signs of decay; while those which have been formed at another time, when a more healthy action has existed, have remained perfectly sound to the end of life."

Most writers are of the opinion, that the capability of the teeth to resist the various causes of decay, is sometimes weakened by a change brought about in their physical condition through the agency of certain remote causes, such as the profuse administration of mercury, the existence of fevers, and all severe constitutional disorders.

Mr. Fox says, "He has had occasion to observe, that great changes take place in the economy of the teeth in consequence of continued fever; and that the decay of the teeth is often the consequence of certain states of the constitution."

Mr. Bell remarks: "That amongst the remote causes, (of decay,) are those which produce a deleterious change in the constitution of the teeth, subsequent to their formation, one of the most extensive in its effects is the use of mercury. To the profuse administration of this remedy in tropical diseases, we may, I think, in a great measure, attribute the injury which a residence in hot climates so frequently inflicts on the teeth.

Severe constitutional disorders, and the administration of certain kinds of medicine, do not, as Mr. Fox and Mr. Bell suppose, act directly upon the teeth, by altering their physical condition and thus rendering them more liable to disease; but they exert an indirect influence upon them, for, as they impair the general health, the secretions of the mouth are changed and rendered more obnoxious to the organs.

The following is the result of the author's observations upon this subject: The gums and alveolar processes are sometimes destroyed by the use of mercury, while all the teeth loosen and drop out, without being at all decayed. The teeth of persons, in whom a mercurial diathesis has been for a long time kept up, or who have been for years suffering from dyspepsia, phthisis, fevers, or other severe constitutional disorders, often continue to be perfectly sound, while other teeth, under similar circumstances, frequently decay. Now, all this goes to prove, not that changes are effected in the organization of the teeth, whereby their predisposition to decay is increased, but that there are differences in the capabilities of different teeth to resist the action of the acrid secretions of the mouth, caused by the affections which have just been enumerated.

The predispositions of teeth to decay, may, however, be increased by improper dental operations, as injudicious filing, careless plugging, &c.

The formation, arrangement, and

physical condition of the teeth are, sometimes, influenced by an hereditary diathesis of the general system, or of the parts concerned in their production, and that a morbid condition of the system, either on the part of the father or mother, often predisposes their progeny to like affections, is a principle fully recognized in pathology, and a fact of which we have many fearful proofs.

Mr. Bell, in treating of what he calls the hereditary predisposition of the teeth to decay, remarks: "That it often happens that this tendency exists in either the whole or a great part of a family of children, where one of the parents had been similarly affected; and this is true to so great an extent, that I have commonly seen the same tooth, and even the same part of a tooth, affected in several individuals of the family, and at about the same age. In other instances where there are many children, amongst whom there existed a distinct division into two portions, some resembling the father, and some the mother, in features and constitution, I have observed the corresponding differences in the teeth, both as it regards their form and texture, and their tendency to decay."

Conclusive proofs, that there is an hereditary tendency in the teeth to decay, are almost daily presented to the dental practitioner. Yet, we think it is occasioned not by the transmission from the parent to the child of any peculiarity of action in the teeth themselves, but of a similarity of action in the parts concerned in their production, so that the teeth of the child are, in form and structure, like those of the parent whom it most resembles, and from whom it has inherited the diathesis. The teeth of the child being thus shaped like those of the parent, possessed of a like degree of density, and, in most instances, similarly arranged, are equally liable to disease, and when exposed to the action of the same causes, are affected in a like manner, and, generally, at about the same period of life. Such being the fact, is it unreasonable to conclude, that judicious and early attention may so influence the formation and arrangement of the teeth, as greatly to lessen their liability to disease. It is to the differences in the physical condition and manner of arrangement of these organs, in different individuals, and in the same mouth, that the differences in their liability to decay, are attributable.

CA'RIOUS. Affected with caries.

CARLI'NA. The name of a genus of plants.

CARLINA ACANTHIFOLIA. The wild artichoke.

CARLINA ACAULIS. The carline thistle.

CARLO SANCTO. St. Charles' root.

CARMEN. A verse; a charm; an amulet.

CARMINANTIA. See Carminative.

CARMIN'ATIVE. *Carminativus;* from *carmen*, a verse, or charm; because their operation was ascribed by the ancients to a charm. Medicines which allay pain and dispel flatus from the alimentary canal.

CARMINE. A beautiful red pigment prepared from cochineal.

CARNABA'DIUM. Caraway-seed.

CAR'NEÆ COLUMNÆ. The fleshy fasciculi in the ventricles of the heart.

CARNEOUS. *Carneus; carnosus;* from *caro*, flesh. Fleshy. Resembling flesh.

CARNIC'ULA. Diminutive of *caro*, flesh. The gums. A small fleshy substance.

CARNIFICA'TION. *Carnificatio;* from *caro*, flesh, and *fieri*, to become. Becoming flesh; conversion into a substance resembling flesh.

CARNIFOR'MIS. From *caro*, flesh, and *forma*, likeness. Having the appearance of flesh; usually applied to an abscess, having a hardened orifice.

CARNIV'ORA. An order of animals which subsist on flesh.

CARNIV'OROUS. From *caro*, flesh, and *voro*, I eat. Feeding on flesh. Any

thing which eats flesh. Applied, also, to substances which destroy fleshy excrescences.

CARNOSUS. Carneous; fleshy.

CARO. *Caro carnis.* Flesh; the red part or belly of a muscle; the pulp of fruit.

CAROLINA PINK. Spigelia marilandica.

CAROTID. From καροω, to cause to sleep. The carotid artery is so called, because when it is tied with a ligature, the animal becomes comatose. See Carotid Artery.

Carotid Artery. *Arteria carotidea.* A large artery on each side of the neck for carrying the blood to the head. The right arises from the arteria innominatum, and the left, from the arch of the aorta. Each is divided into an *external* and *internal.* The *superior thyroideal,* the *sublingual,* the *inferior, external* and *internal maxillary,* the *occipital,* the *external auditory,* and the *temporal,* are branches of the external carotid. The *anterior cerebral,* the *posterior,* the *central* artery of the optic nerve, and the *internal orbital,* are given off within the cavity of the cranium by the internal carotid.

Carotid Canal. A canal in the temporal bone traversed by the carotid artery, and several nervous filaments.

Carotid Foramina. The foramina at each extremity of the carotid canals. They are distinguished into external and internal.

CARPATHICUM BALSAMUM. See Pinus Cembra.

CARPHOLOG'IA. From καρφος, the nap of cloths, and λεγω, I pluck. Delirious picking of the bed clothes, a dangerous symptom in disease.

CARPOBAL'SAMUM. From καρπος, fruit, and βαλσαμον, balsam. See Amyris Gileadensis.

CARPIAL. Belonging to the carpus.

CARPOS. Fruit.

CARPUS. Καρπος, the wrist. The wrist.

CAR'THAMUS. From καθαιρω, to purge. The pharmacopœial name of the saffron flower. See Carthamus Tinctorius.

Carthamus Tinctorius. The systematic name of the saffron flower, or bastard saffron.

CAR'TILAGE. *Cartilago.* A white, hard and elastic part of the body, which in the fetus serves as a substitute for bones, but in the adult are found only in the joints, and at the extremities of the ribs.

Cartilages, Interarticular. Cartilages situated within the joints.

Cartilages Articular. Cartilages which surround surfaces that are in contact with each other.

CARTILA'GINOUS. *Cartilagineus.* Partaking of the nature of, or resembling cartilage.

CARTILAGO ANNULARIS. The ring-like, or cricoid cartilage.

Cartilago Arytænoidea. Two cartilages of the larynx.

Cartilago Cricoidea. The cricoid cartilage. A cartilage of the larynx, situated between the thyroid and arytenoid cartilages.

Cartilago Ensiformis. The ensiformis cartilage attached to the lowest part of the sternum.

CARUM. Καρος, from *Caria,* a province in Asia. Caraway. The pharmacopœial name of the plant caraway.

CARUN'CULA. Caruncle.

Caruncula Lachrymales. A small, red, glandular body, at the inner angle of each eye.

Caruncul.æ Mamillares. The extremities of the lactiferous tubes in the nipple.

Caruncul.æ Myrtiformes. Several small reddish tubercles near the orifice of the vagina, supposed to be the remains of the hymen.

Caruncul.æ Papillares. The papillæ within the pelvis of the kidneys.

CAR'UNCLE. *Caruncula.* Diminutive of *caro,* flesh. A small fleshy excrescence.

CA'RUON. See Carum.

CARUS. Καρος, from καρα, the head, as being the part affected. Insensibility and sleep. Coma.

Carus Apoplexia. Apoplexy.

Carus Asphyxia. Asphyxia.

Carus Catalepsia. Catalepsy.

Carus Ecstasis. Ecstasis.

CARYOPHYL'LUS. The clove tree. The name of a genus of plants.

Caryophyllus Aromaticus Americanus. Myrtus Pimenta.

Caryophyllus Hortensis. Dianthus caryophyllus.

CASCARIL'LA. See Croton Cascarilla.

CASCHU. See Catechu.

CASEUS. Cheese.

CASSIA. The name of a genus of plants. Also, the cassia bark.

Cassia Caryophyllata. Myrtus caryophyllata. The clove bark tree.

Cassia Fistula. *Cassia nigra; cassia fistularis.* The purging cassia.

Cassia Senna. The systematic name of the plant which affords senna.

CASSIUS' PRECIPITATE. A purple powder used to paint in enamel. The powder of Cassius.

CASTRILLO, F. Mart. Author of a work on Dentition, published at Valladolid, 1557, and at Madrid, in 1570.

CASSUMU'NIAR. A bitter aromatic root, brought in irregular slices from the East Indies.

CASTING. In *Dental Surgery*, running fused lead, tin, zinc or brass, into a mould made in sand with a plaster transfer of any portion, or the whole of the alveolar border and so many of the teeth as may be remaining in it, and palatine arch when it becomes necessary to adapt a plate to it. The castings employed in mechanical dentistry are sometimes made by pouring fused metal directly upon the plaster model, and afterwards into the mould thus formed. See Metallic Models.

CASTOR. The name of a genus of animals. Also, a peculiar concrete substance, having a strong and unpleasant odor, found in bags near the rectum of the beaver.

Castor Fiber. *Fiber; canis ponticus.* The beaver which furnishes the castor.

Castor Oil. See Ricinus.

CASTO'REUM. Castor fiber.

CASTRA'TION. *Castratio.* The operation for the removal of the testicles.

CASTRA'TUS. One deprived of his testicles.

CATABLE'MA. From καταβαλλω, to throw around. The outermost bandage or fillet which secures the rest.

CATACAU'MA. From καταχαιω, to burn. A burn or scald.

CATACAU'SIS. From καταχαιω, to burn. Combustion.

Catacausis Ebriosa. From καταχαιω, to burn, and *ebriosus*, full of strong liquor. General combustibility of the body.

CATAC'LASIS. From καταχλαω, to break or distort. Distorted eyelids.

CATACLEIS. From κατα, beneath, κλεις, the clavicle. The first rib beneath the clavicle. Also, applied to the acromion, and the connection of the sternum with the ribs.

CATACLYS'MUS. *Cataclysma;* from καταχλυζειν, to submerge, inundate. A clyster. Also, applied to a shower bath and ablution.

CATAG'MA. From κατα, and αγω, to break. A fracture.

CATAGMAT'ICS. From καταγμα, a fracture. Remedies supposed to promote the formation of callus.

CATALEPSY. From καταλαμβανω, to seize, to hold. Catalepsy. A disease characterized by sudden suspension of motion and sensation.

CATALPA. A tree of the family *bignoniaceæ.*

CATALAN. A French dentist, and author of a Memoir, Report, and Observations, upon the apparatus necessary to correct the deformity which consists in the under jaw advancing before the upper, published at Paris,

1826. The apparatus alluded to here, is a most valuable invention for correcting certain varieties of irregularity of the teeth. It consists of a kind of guttered palate and inclined plane.

CATAMASSE'SIS. From καταμασσαομαι, to manducate. Grinding of the teeth, and biting of the tongue, as is often the case in convulsions and epilepsy.

CATAME'NIA. The menses, or monthly discharge from the uterus of females between the ages of fourteen or fifteen and forty-five.

CATANTLE'MA. From καταντλαω, to pour upon. Ablution with water, or a medicated fluid, also, a fomentation.

CATAPH'ORA. From καταφερω, to make sleepy. A term applied by some to a disposition to sleep, and by others to a profound sleep.

CATAPHRAC'TA. From καταφρασσω, I fortify. A bandage applied to the thorax and shoulders.

CAT'APLASM. *Cataplasma*, from καταπλασσω, to spread like a plaster. A poultice or plaster.

CATAPLAS'MA. A cataplasm.

Cataplasma Acetosæ. A sorrel poultice.

Cataplasma Aluminis. An alum plaster.

Cataplasma Conii. A hemlock poultice.

Cataplasma Dauci. A carrot poultice.

Cataplasma Fermenti. A yeast poultice.

Cataplasma Lini. A linseed poultice.

Cataplasma Sinapis. A mustard plaster.

CATAPLEX'IS. From κατα, and πλησσω, to strike. The act of being struck with amazement. Also, deprivation of sensation in any of the organs or members of the body.

CATAPSYX'IS. From καταψυχω, I refrigerate. Coldness of the body without shivering.

CATAPTO'SIS. From καταπιπτω, to fall down. Falling down, as in apoplexy or epilepsy. Applied, also, to the sudden restoration of a paralytic limb.

CAT'ARACT. *Cataracta*, from καταρασσω, to confound, or disturb. A cataract. Loss of sight, caused by opacity of the crystalline lens, or its capsules, which prevents the rays of light from passing to the optic nerve.

CATARRH. *Catarrhus*, from καταρρεω, I flow down. Increased secretion and discharge of fluid from the mucous membrane of the nose, fauces and bronchia, accompanied with fever, cough, sneezing, loss of appetite and lassitude. It sometimes assumes an epidemic form, prevailing very generally throughout a whole country.

CATARRHŒ'CUS. From καταρρεω, I flow from. A catarrhal affection.

CATARTIS'MUS. From καταρτιζειν, to repair, replace. Coaptation of a fractured or luxated bone.

CATAS'TASIS. From καθιστημι, I establish. The state, condition, or constitution of any thing.

CAT'ECHU. The various extracts from the *acacia catechu*. It is a powerful astringent.

CATHÆ'RESIS. Exhaustion.

CATHAR'MA. From καθαιρω, to remove. Matters purged from the body, whether caused by purgatives or otherwise.

CATHAR'MUS. From καθαιρω, to remove. Purgation. Applied also to the cure of disease by magic.

CATHAR'SIS. From καθαιρω, to take away, to purge. Natural or artificial purgation by any of the passages.

CATHAR'TIC. *Catharticus;* from καθαιρω, to purge. A medicine which when taken internally increases the number of alvine evacuations. The medicines belonging to this class are numerous.

CATHARET'IC. *Cathæretica;* from καθαιρω, to remove. Corrosive or caustic subtances used for the destruction of exuberant granulations, warts, &c.

CATH'ETER. *Catheter.* Καθετηρ; from καθιημι, to thrust into. A hollow tube to be introduced into the urinary bladder, to draw off the water, made of silver or elastic gum.

CATHETERIS'MUS. From καθετηρ, a catheter. The introduction of a catheter into the bladder.

CATHID'RYSIS. From καθιδρυω, I place together. The reduction of a fracture or dislocation.

CATHMIA. Litharge.

CATHOL'ICON. From κατα, and ολικος, universal. A universal medicine, or remedy supposed to be capable of curing all diseases.

CATIL'LIA. A nine ounce weight.

CAT'LING. A long, sharp-pointed, double-edged knife.

CATOCATHAR'TIC. *Catocatharticus;* from κατω, downward, and καθαιρω, to purge. A medicine which purges downwards.

CATOCHA GALENI. Catalepsy.

CATOCHUS. From κατεχω, to detain. A spasmodic disease by which the body is held in an upright position. Catalepsy.

CATORET'ICUS. *Catoretica;* from κατω, downwards, and ρεω, I flow. Purgative medicines.

CATOT'ICA. *Catoticus;* from κατω, below. Diseases which effect internal surfaces, and produce a morbid condition of the fluids.

CADUA EQUI'NA. The spinal marrow at its termination about the second lumbar vertebra, gives off a large number of nerves, which, when unraveled, resemble a horse's tail, and hence the name.

CAUL. The omentum.

CAULE'DON. From καυλος, a stalk. A transverse fracture.

CAU'LIFLOWER EXCRESCENCE. *Excresentia syphilitica.* An excrescence which occurs in syphilitic diseases, chiefly about the anus and vulva.

CAUMA. Καυμα, heat, from καιω, to burn. The heat of the body in fever, or the heat of the atmosphere. Inflammatory fever.

CAUSE. That which produces an effect. An act preceding another and in which the former is necessary to the latter.

CAU'SIS. From καιω, to burn. To burn. Act of combustion.

CAUSO'MA. From καιω, to burn. Great heat. Inflammation.

CAUS'TIC. *Causticum;* from καιω, to burn. A substance which, when applied to the body, produces a burning sensation, and disorganizes animal substances by destroying their texture.

Caustic Alkali. Pure alkalies.

Caustic Barley. Cevadilla.

Caustic, Lunar. Argentum nitratum.

Caustic Volatile Alkali. Ammonia.

CAUSTICI'TY. Having a caustic property.

CAUTERIZA'TION. The act of cauterizing.

CAUTERY. *Cauterium;* from καιω, to burn. An instrument used for burning or disorganizing the part to which it is applied. Formerly, cauteries were divided into *actual* and *potential,* but it is now restricted to the red-hot iron. Potential was then applied to kali purum, or potassa, but this term is now used synonymously with caustic.

CAVA, VENA. A name given to the two great veins of the body which meet at the right auricle of the heart.

CAVER'NA. From *cavus,* hollow. A cavern, an antrum. Applied to the female organs of generation.

CAV'ERNOUS. *Cavernosus.* Filled with small caverns or cavities.

CAVITAS PULPÆ. The pulp cavity of a tooth. See Dental Cavity.

CAVITY. *Cavitas,* from *cavus,* hollow. Any hollow.

CAVUM DENTIS. See Dental Cavity.

Cavum Narium. The nares.

Cavum Oris. The mouth.

CAVUS. A hollow; a cavity.

CEANO'THUS. The name of a genus of plants.

Ceanothus Americanus. New Jersey tea.

CEASMA. From κειω, to split, or divide. A fissure.

CED'MATA. Κεδματα. Pains in the joints, particularly those of the hips.

CEDRELE'UM. From κεδρος, the cedar, and ελαιον, oil. The oil of cedar.

CEDAR. Pinus cedrus.

CE'DRIA. Cedrium.

CEDRIUM. The cedar, or cedar tree.

CEDRUS. From *Kedron*, a valley where this tree grows. See Pinus Cedrus.

Cedrus Americana. The arbor vitæ.

Cedrus Baccifera. Savine.

CEI'RIA. From κειρω, to abrade. The tape-worm is so called from its abrading the intestines.

CELAS'TRUS. *Ceanothus Americanus;* New Jersey tea; red-root. It possesses bitter and astringent properties.

CELE. Κηλη, a tumor; a swelling. A tumor caused by the protrusion of a soft part, and hence the compound terms, *hydrocele, bubonocele.*

CELL. *Cella.* A cavity, or chamber.

Cell, Calcigerous. See Calcigerous Cells.

Cell, Germinal. See Cytoblast.

Cell, Nucleated. See Cytoblast.

CEL'LULAR. *Cellularis.* Composed of small cells.

Cel'lular Membrane. *Membrana cellulosa.* Cellular tissue.

Cellular System. The whole of the cellular tissue of the body.

CEL'LULE. *Cellula;* diminutive of *cella*, a cell. A small cell.

CELOTOM'IA. From κηλη, a hernia, and τεμνω, to cut. The operation by cutting for the cure of hernia.

CEMENT. The name of substances employed by chemists for uniting things together. It has also been applied to amalgam, a substance used by some dentists, for filling teeth. See Amalgam.

Cement for the Teeth, Ostermaier's. An earthy compound proposed by M. O. Ostermaier for filling teeth, consisting of thirteen parts of quicklime, chemically pure, and finely pulverized, promptly mixed with twelve parts anhydrous phosphoric acid, obtained by the combustion of phosphorus in dry air. "A sufficient quantity of this powder, which has become moist by the process of mixing, is then introduced into the cavity of the tooth, previously dried by means of blotting paper, care being taken to fill the cavity properly, and to level and polish the outer surface, which is afterwards moistened with a little water."* If more than two minutes elapse after this mixture is made, the inventor says it is unfit for use, but when used according to the directions, he asserts that it renders a carious tooth similar to a sound one; but experience has failed to confirm his assurances of its value.

CEMENTUM. Cement. One of the substances or parts of a tooth. It covers the fang or root and has been traced over the enamel; it is thickest at the extremity of the root, and becomes gradually thinner as it approaches the neck of the tooth. *Purkinjé* and *Fuenkel* mention one case which came under their observation, where it covered the enamel of the teeth of an old man, and Mr. Nasmyth is of opinion that it always envelops the crowns of the teeth. The author, however, has never been able to detect it, except upon the roots of the teeth. Cementum also joins together the plates of compound teeth, like those of the elephant, and fills up the cavities and folds in the teeth of ruminants. It is of a cellular texture and vascular.

According to professor Owen, cementum, "always closely corresponds in texture with the osseous tissue of the same animal, and wherever it occurs of sufficient thickness, as upon the teeth

* Herb. und Winckl. Jahrb.

Unable to display this page

opposed to facts and observation. The annals of medicine do not furnish a single well authenticated case of abscess of the cement of a tooth.

"It is the presence of this osseous substance," says professor Owen, "which renders many well known experiments of which the human teeth have been the subjects; such as their transplantation, and adhesion into the combs of cocks, and the establishment of a vascular connection between the tooth and the comb; the appearances which the Huntarian specimens of these experiments present, and of the reality of which professor Müller satisfied himself during his visit to London, are no longer perplexing, now that we know that the surface of the tooth, in contact with, and adhering to the vascular comb, is composed of a well organized tissue, closely resembling bone.

"This correspondence of the cement, which, when it exists in sufficient quantity, becomes almost identical with true bone, is illustrated by the varieties of microscopic structure which the cement presents in different classes of animals, and which always correspond with the modifications of the osseous tissue of the skeleton in those animals; thus the cement in the osseous fishes, in which the bone is not characterised by the radiated calcigerous cells, likewise ceases to present that character; and, in reptiles and mammals in which the radiated cells are present in the bone of the skeleton and in the dental cement, there is a close conformity as to their size and shape in both tissues.

"The most remarkable modification of mammalian cement, is presented by the thick layer of that substance which invests the molares of the extinct megatherium; besides abounding in calcigerous cells, it is here traversed by straight, parallel and occasionally bifurcated medullary canals, arranged with regular intervals, and directed from the exterior of the tooth somewhat obliquely to the surface of the unvascular dentine, close to which they anastomose by loops, corresponding with, and opposite to those formed by the medullary canals of the vascular dentine of the same tooth.

"Under every modification, the cement is the most highly organized and most vascular of the dental tissues, and its chief use is to form the bond of vital union between the denser and commonly unvascular constituents of the tooth and the bone, in which the tooth is implanted. In a few reptiles, (now extinct,) and in the herbivorous mammalia, the cement not only invests the exterior of the teeth, but penetrates their substance in vertical folds, varying in number, form, extent, thickness, and degree of complexity, and contributing to maintain that inequality of the grinding surface of the tooth, which is essential to its function as an instrument for the comminution of vegetable substances."

With regard to the manner of the formation of the cementum, which is the last to appear of the dental tissues, nothing positive is known. Raschkow thinks it may be produced by the remains of the enamel pulp, but as it cannot be detected on the crowns of the human teeth, we have great reason for believing that it is secreted by the periosteum, and the fact that it increases in thickness with age, would seem to render this opinion, by far, more probable.

CEMENTA'TION. A chemical process which consists in surrounding a solid body with the powder of other substances, and exposing the whole to a red heat in a closed vessel for a length of time. It is in this way that iron is converted into steel. It is also a process adopted in some of the mints for refining gold. See Gold, refining of.

CEMEN'TERIUM. A crucible.

CENEANGEI'A. From κενος, empty, and αγγειον, a vessel. Deficiency of blood in the vessels.

CENEONES. The flanks.

CENIG'DAM. *Ceniplam; cenigotam; cenipolam.* The name of an in-

strument anciently used for opening the head in epilepsies.

CENO'SIS. From κενος, empty. General evacuation; also, sometimes applied to inanition.

CENOTI'CA. *Cenoticus;* from κενωσις, evacuation. Morbid, or excessive discharges.

CENTAU'REA. The name of a genus of plants.

CENTAUREA BEHEN. *Behen album.* The white behen.

CENTAUREA BENEDIC'TA. The blessed or holy thistle.

CENTAUREA CALCITRA'PA. The common star-thistle, or star knap-weed.

CENTAUREA CENTAU'RIUM. The greater centaury.

CENTAUREA CY'ANUS. The blue-bottle.

CENTAUREA SOLSTITIALIS. St. Barnaby's thistle.

CENTAURY, AMERICAN. The sabbatia angularis.

CENTAURY, EUROPEAN. Chironia centaurium.

CENTIGRAMME. From centum, a hundred, and γραμμα, gramme. *Centigramma.* The hundredth part of a gramme, which is equal to about the fifth part of a French grain, 1544. troy.

CENTIMETRE. *Centimeter.* The hundredth part of a metre, which is about four lines. .3937 English inch.

CENTIPEDE. From *centum,* a hundred, and *pes,* foot. The name of the myriapodus insects of the genus *scolopendra.* The largest, when full grown, have from fifty to two hundred pairs of feet.

CENTRES, NERVOUS. Nervous centres. The organs, as the brain and spinal marrow, from whence the nerves originate.

CENTRE OF ATTRACTION.—Centre of gravitation. The point to which bodies tend as a consequence of gravitation.

CEPA. From κηπος, a wool-card, from the likeness of its roots. The onion.

CEPHALÆ'A. From κεφαλη, the head. The fleshy covering of the skull, also, head-ache.

CEPHALAGRA'PHIA. From κεφαλη, the head, and γραφη, a description. Anatomical description of the head.

CEPHALAL'GIA. From κεφαλη, the head, and αλγος, pain. *Cephalæa.* Head-ache.

CEPHALE. Κεφαλη. The head.

CEPHAL'IC. From κεφαλη, the head. Pertaining to the head.

CEPHALIC VEINS. *Vena cephalica.* The anterior or outermost vein of the arm is so called, because, taking blood from this vein, was supposed to afford relief to affections of the head.

CEPHALIC REMEDIES. Medicines, or remedies used for the cure of diseases of the head.

CAPHALI'TIS. *Phrenitis,* or inflammation of the brain.

CEPHALOMA. A medullary, or encephaloid tumor.

CEPHALON'OSUS. From κεφαλη, the head, and νοσος, a disease. Febris hungarica, a disease which principally affects the head.

CEPHALO-PHARYNGÆ'US.—From κεφαλη, the head, φαρυγξ, the pharynx. Constrictor pharyngis superior, a muscle of the head and pharynx.

CEPHALOPONIA. From κεφαλη, the head, and πονος, pain. Head-ache.

CERA. Wax. Bees-wax. A solid concrete animal product, prepared by the bee, and extracted from their combs, after the removal of the honey. When first obtained from the comb it is called yellow wax, or *cera flava.* It is of a bright yellow color when fresh, or recently extracted. When softened by the fire, or in warm water, is very malleable and tough, but it becomes brittle with age and loses its fine yellow color. In *Dental Prosthesis,* it is used for the procurement of impressions of the jaws. But when used for this purpose it should always be fresh.

By softening and reducing yellow wax into thin cakes, and exposing it for a long time to the sun and open air,

it becomes white. This when melted and formed in cakes, is termed virgin or white wax, *cera alba*. The white wax, however, is not so good for taking impressions of the mouth, as the yellow, as it is generally more brittle.

Cera Alba. White wax.

Cera Flava. Yellow wax.

Cera Vegetabilis. Vegetable wax; natural wax.

CE'RATE. *Ceratum*. A composition of wax, oil, or lard.

CERA'TO. From κερας, a horn. Used in composition, in the names of muscles. See Cerato-Glossus.

Cerato-Glossus. A muscle of the tongue. See Hyoglossus.

Cerato-Hyoideus. The stylo-hyoideus muscle.

CERATOCE'LE. From κερας, and κηλη, tumor. Hernia of the cornea, or protrusion of the membrane of the aqueous humor through an opening in the cornea.

CERATOT'OMUS. The name of a knife invented by Wenzel, for dividing the transparent cornea, in the operation of cataract.

CERA'TUM. Wax. Cerate.

Ceratum Calaminæ. *Ceratum lapidis calaminaris; ceratum epuloticum.* Calamine cerate.

Ceratum Cantharidis. *Ceratum lyttæ*. Cerate of the blistering fly.

Ceratum Cetacei. *Ceratum spermatis ceti; ceratum album.* Spermaceti cerate.

Ceratum Conii. Hemlock cerate.

Ceratum Plumbi Acetatis. *Unguentum cerussæ acetatæ*. Cerate of acetate of lead.

Ceratum Plumbi Compositum. *Ceratum lithargyri acetati compositum.* Compound cerate of lead.

Ceratum Resinæ. *Ceratum resinæ flavæ; ceratum citrinum.* Resin cerate.

Ceratum Sabinæ. Savine cerate.

Ceratum Saponis. Soap cerate.

Ceratum Simplex. Simple cerate.

CERCA'RIÆ. From κερκος, a tail. A family of infusoria animalcules, having an enlarged body with a slender tail-like appendage, and one of the most curious of which is found in salivary calculus. Indeed, M. Mandl asserts that the tartar of the teeth consists of nothing more than a deposit of the skeletons of dead infusoria, agglutinated together by dried mucus, very similar to certain earths, which, according to M. Ehrenborg, are composed almost wholly of fossil infusoria.

If the theory of M. Mandl were correct, tartar would be deposited upon all teeth alike. But this is not the fact. Some teeth, as the lower incisores and the outer surfaces of the molares of both jaws, and particularly the upper, are, by far, more liable to have it deposited on them, than any of the other teeth. The infusoria found in salivary calculus are doubtless generated in the mucous fluid of the mouth, which is always mixed more or less abundantly with this substance as it is deposited upon the teeth. It is in this way that their presence, in the tartar of the teeth, is to be accounted for.

CERCH'NOS. From κερχω, to wheeze. *Cerchnus*. Wheezing.

CE'REA. From *cera*, wax. The cerumen aurium, or wax of the ear.

CEREBEL'LUM. Diminutive of *cerebrum*. The little brain, which is that portion of the medullary mass of the cavity of the cranium, situated in the inferior part of the occipital fossæ, below the tentorium. It is divided by a septum into a right and left lobe, and like the other part of the brain is composed of cortical and medullary matter.

CERE'BRAL. *Cerebralis;* from *cerebrum*, the brain. Belonging to the brain. Similar to brain.

Cerebral Apophysis. The pineal gland.

Cerebral Arteries. The arteries of the brain. There are three on each side, namely, the *anterior*, or *artery of the corpus callosum*, the *middle*, or *arteriæ sylvianæ*, and the *posterior*, or *posterior* and *inferior*. The two first are furnish-

ed by the internal carotid, and the other by the vertebral.

Cerebral Nerves. The nerves which arise within the cranium.

CERE'BRUM. The brain. A term sometimes applied to the whole of the contents of the cranium; at other times only to the upper portion of the brain. "The cerebrum is divided into a right and left hemisphere, vertically separated from each other, "and inferiorly into six lobes, two anterior, two middle, and two posterior; situated within the cranium, and surrounded by the dura and pia mater, and tunica arachnoidea. It is composed of a *cortical substance*, which is external; and a *medullary*, which is internal. It has three" distinct "*cavities* called *ventricles;* two anterior, or lateral, which are divided from each other by the *septum lucidum*, and in each of which is the *choroid plexus*, formed of blood-vessels; the third ventricle is a space between the thalami nervorum opticorum. The principal prominences of the brain are the *corpus callosum*, a medullary eminence, conspicuous upon laying aside the hemispheres of the brain; the *corpora striata*, two striated protuberances, one in the anterior part of each lateral ventricle; the *thalami nervorum opticorum*, two whitish eminences behind the former," from "which the optic nerves" were said to originate; "the *corpora quadrigemina*, four medullary projections, called by the ancients *nates* and *testes;* a little cerebrine tubercle lying upon the nates, called the *pineal gland;* and, lastly, the *crura cerebri*, two medullary columns, which proceed from the basis of the brain to the *medulla oblongata*. The cerebral arteries are branches of the carotid and vertebral arteries. The veins terminate in *sinuses*, which return their blood into the internal jugulars. The use of the brain is to give off nine pairs of nerves, and the spinal marrow, from which thirty-one more pairs proceed, through whose means the various senses are performed, and muscular motion excited." The brain "is also considered as the organ of the intellectual functions."

Vauquelin's analysis of the brain is in 100 parts; 80 water, 4.53 white fatty matter, 0.7 reddish fatty matter, 7 albumen, 1.12 osmazome, 1.5 phosphorus, 5.15 acids, salts, and sulphur."*

Cerebrum Elongatum. Medulla oblongata, and medulla spinalis.

CERELÆ'UM. From κηρος, wax, and ελαιον, oil. Cerate composed of wax and oil. Also, oil of tar.

CEREOLA. A bougie made of wax.

CEREVIS'IA. From *ceres*, corn; so called, because it is made from it. Any liquor made from grain.

CERIA. From *cereus*, soft, pliant. The flat worms found in the intestines.

CERION. From κηριον, a honeycomb. A species of porrigo; also, a honey-combed ulcerative affection of the head.

CEROMANTI'A. From κηρος, wax, and μαντεια, divination. The art of foretelling the future from the figures which melted wax, when dropped on the surface of water, assumes.

CEROPIS'SUS. From κηρος, wax, and πισσα, pitch. A plaster composed of pitch and wax.

CEROPLAS'TIC. From κηρος, wax, and πλαστικη τεχνη, the art of the modeler or carver. The art of modeling in wax. This art is of great antiquity, and to the dental surgeon who is anxious to preserve a transfer of the various cases of irregularity of the teeth which may come under his notice, it is particularly valuable.

CEROTUM. Cerate.

CERU'MEN. From *cera*, wax. See Cerumen Aurium.

Cerumen Aurium. The unctuous secretion, which is of a waxy consistence, found in the meatus auditorius externus.

CERU'MINOUS. Relating to, or having the properties of, cerumen.

* Hooper's Med. Dic.

CERUMINOUS GLANDS. The folicular glands, situated beneath the membrane lining the meatus, which secrete the cerumen.

CERVI SPINA. Rhamnus catharticus, or purging buckthorn.

CERVICAL. *Cervicalis;* from *cervix*, the neck. Belonging to the neck; also, every thing that concerns it.

CERVICAL ARTERIES. The cervical arteries are three in number, namely. The *ascending, anterior,* or *superficial,* derived from the inferior thyroid; the *transverse,* or *cervico-scapulare,* given off from the axillary artery, and the *posterior,* which is a branch of the subclavian.

CERVICAL GAN'GLIONS. The three ganglions of the great sympathetic nerve. The *first* is situated opposite the second cervical vertebra; the *second,* or *middle cervical ganglion* is opposite to the interval, between the fifth and sixth cervical vertebræ; and the *third,* which is sometimes called the *first thoracic,* is situated between the transverse process of the last cervical vertebra and the head of the first rib.

CERVICAL LIGAMENTS. The cervical ligaments, are two in number. The first is called the *anterior,* and extends from the basilary process of the occiptal bone to the anterior part of the first cervical vertebra; and the second is denominated the *posterior,* and extends from the outer occipital protuberance to the spinous process of the last cervical vertebra.

CERVICAL NERVES. The eight pairs of nerves first given off from the spinal marrow.

CERVICAL PLEXUS. The net-work of nerves formed by the branches of the first three cervical nerves.

CERVICAL VEINS. These veins have nearly the same distribution as the cervical arteries.

CERVICAL VERTEBRÆ. The seven uppermost vertebræ of the spinal column.

CERVICA'RIA. From *cervix,* the neck. The campanula trachelium, or herb throatwort, so called, because it was supposed to be beneficial in affections of the throat and neck.

CERVIX. *Cervix;* the neck. Applied, also, to organs or parts, as the *cervix uteri,* neck of the uterus, &c.

CESTRI'TES. From κεστρον, betony. Wine prepared from, or impregnated with, betony.

CESTRON. Betonica officinalis. Betony.

CETA'CEA *Cetacean.* In *Natural History,* an order of marine mammalia, including the whale, dolphin, porpoise, &c.

CETA'CEUM. From κητος, a whale. A white, insipid, unctuous substance, obtained from the brain of the spermaceti, and other varieties of whale.

CETIC ACID. Acidum ceticum.

CEVADIL'LA. See Veratrum Sabatilla.

CEYLANITE. The name of a mineral of an indigo blue color.

CHABASITE. The name of a crystallized mineral, of a faint rose color.

CHALA'SIS. From χαλαω, I relax. Relaxation.

CHALAS'TICUS. From χαλαω, I relax. A relaxing medicine.

CHALAZION. From χαλαζα, a hail-stone. A species of hordeolum, or a moveable tumor on the margin of the eyelid, commonly called a stye.

CHALCAN'THUM. From χαλκος, brass, and ανθος, a flower. Red calcined vitriol, or the flowers of brass.

CHALCITES. Colcothar, or the red oxyd of iron.

CHALCOI'DEUM OS. The cuneiform bone of the foot.

CHALK. A calcareous earth of a white color. Carbonate of lime. See Creta.

CHALK, BLACK. Drawing slate, used in crayon drawing.

CHALK, RED. A clay, colored with oxyd of iron.

CHALK-STONE. Earthy concretions found in the hands and feet of persons affected with gout.

CHALYB'EATE. *Chalybea'tus;* from *chalybs*, iron or steel. Of, or belonging to, iron. Any medicine into which iron enters, as a chalybeate mixture, pills, waters, &c.

Chalybeate Waters. Any mineral water containing iron.

Chalybis Rubigo. Sub-carbonate of iron.

CHALYBS. From *Chalybes*, a people of Pontus, who dug iron out of the earth. *Acies*, steel, or the proto-carburet of iron. In its medicinal virtues, steel does not differ from iron.

Chalybs Tartarizatus. Ferrum tartarizatum.

CHAMÆAC'TE. See Sambucus ebulus.

CHAMÆ'CEDRIS. Artemisia santonica; wormseed.

CHAMÆ'LEON. From χαμαι, on the ground, and λεων, a lion, i. e. dwarf lion. The chamæleon, an animal able to change his color at pleasure. It is also applied to many thistles, from the variety and uncertainty of their colors.

CHAMÆMELUM NOBILE. See Anthemis Nobilis.

CHAMÆ'MORUS. Χαμαιμορια; from χαμαι, on the ground, and μορια, the mulberry tree. See Rubus Chamæmorus.

CHAMÆ'PITYS. See Teucrium Chamæpitys.

Chamæpitys Moschata. The French ground pine. Teucrium iva.

CHAMÆ'PLION. See Erysimum Alliaria.

CHAMBAR. Magnesia,

CHAMBER. *Camera;* a term employed in *Anatomy*, in speaking of the eye, in which there are two chambers; an anterior and a posterior. The space before the iris is termed the anterior-chamber, and that behind it the posterior.

CHAMOMILE. Anthemis nobilis.

CHAMOMIL'LA NOSTRAS. Matricaria chamomilla.

CHAN'CRE. From καρκινος, cancer. A sore resulting from the direct application of the venereal poison to any part of the body. This term is never applied to sores occurring in other parts of the body from absorption or general contamination of the system. The French apply the word *chancre*, to cancerous ulcers, and malignant aphthæ of children.

CHAOMANTI'A. A term used by the ancients to signify the art of predicting the future from observations of the air.

CHARACTER. Χαραχτηρ, a mark or impression. In *General Medicine*, the term is used synonymously with mark or appearance. Thus, "a disease is of unfavorable character," or "has a bilious character," &c. In *Dental Surgery*, it is applied to the appearances which the teeth present in their physiological and pathological conditions. It has, also, the same signification when applied to the gums.

CHARANTIA. Momordica elaterium.

CHAR'COAL. Carbo. An impure form of carbon, obtained by burning wood with imperfect access of air, or exposing it to a strong heat in a distilling apparatus composed of cylinders of iron, so constructed that the volatile product may be collected. Among this there will be a certain proportion of tar and pyroligneous acid, or impure vinegar. This, when it is wished to procure a pure article, should be suffered to escape, while the reabsorption of the crude vapor should be prevented, by cutting off the communication between the interior of the cylinders, and the apparatus used for condensing the pyroligneous acid, after the removal of the fire from the furnace.

The charcoal obtained for common purposes, as fuel, &c. is made from wood, piled up in the shape of a pyramid, covered with earth, with a few air holes, but which as the pile becomes well lighted, are closed. In this way the wood is deprived of its volatile parts and converted into a black, brittle, porous substance, called charcoal, but re-

taining the shape of the vegetable from which it is obtained.

CHAR'LATAN. A quack; a mountebank; an empirical pretender—one who sells medicines to which he attributes marvellous virtues. Any one who attempts to deceive others by pretending to have more skill than he really has.

CHARM. A trick, words, sound, philters, or characters of occult power, enchantment, spell, incantation, magic; a sort of superstitious practice, by which it was supposed a person might be deprived of life, struck with sickness, or restored to health.

CHARPIE. A French word signifying scraped linen, or old linen torn in small pieces, or lint, used in dressing wounds and ulcers.

CHASME. From χαινω, to gape. Yawning; gaping.

CHATTERING OF THE TEETH. *Dentium crepitus.* A phenomenon resulting from tremor of the muscles of the inferior maxilla, and commonly dependent on rigor arising from cold, or mental emotion.

CHEEK. The side of the face, extending from the lower eyelid to the base of the jaw, and from the nose and commissure of the lips to the ear.

Cheek-Bone. Malar bone.

CHEESE. *Caseus.* The coagulum of milk compressed into a solid mass.

CHEILI'TIS, or CHILI'TIS. From χειλος, a lip. Inflammatiom of the lip.

CHEILOC'ACE. From χειλος, a lip, and κακος, evil. Swelling and induration of the lip, or canker in the mouth.

CHEILOCARCINO'MA. From χειλος, a lip, and καρκινωμα, cancer. Cancer of the lip.

CHEILOPLAS'TICE. *Chiloplastice;* from χειλος, a lip, and πλαστικος, forming. The operation for an artificial lip.

CHEILOS. Lip.

CHEIRAN'THUS. The name of a genus of plants.

Cheiranthus Cheiri. Χειρ, a hand. The common yellow-wall flower.

CHEIRAP'SIA. From χειρ, the hand, and απτομαι, to touch. The action of scratching, as in the itch.

CHEIRI. Cheiranthus cheiri.

CHEIRIA'TER. From χειρ, the hand, and ιατρος, a physician. A surgeon.

CHEIRIS'MA. From χειριξομαι, to labor with the hand. Any manual operation; the act of touching, or handling.

CHEIRIXIS. From χειριξομαι, to labor with the hand. Surgery in all its branches.

CHEIRONOM'IA. From χειρονομεω, I exercise with the hands. An exercise consisting in using the hands, as in the exercise with the dumb-bells.

CHELA. Χηλη, forceps; from χαω, to take. A bifurcated probe used for the extraction of nasal polypi. Applied also to a fissure in the feet and to the claws of a crab.

CHELÆ CANCRORUM. Crab's claws.

CHELIDON'IUM. Byrony. Also, the name of a genus of plants.

Chelidonium Majus. Tetter-wort, and the common celandine.

Chelidonium Minus. Ranunculus ficaria; pill-wort.

CHELO'NE. Χελωνη, a tortoise. Also, applied to an instrument for extending a limb, because the slowness of its motion resembles a tortoise.

CHELO'NION. From χελωνη, a tortoise, from its resemblance to the shell of a tortoise. A hump or gibbosity of the back.

CHELYS. Χελυς, the chest. The thorax.

CHELYS'CION. From χελυς, the chest. A dry hacking cough, attended with soreness of the muscles of the chest.

CHEMANT, DUBOIS DE. A French dentist, and author of a Dissertation on Artificial Teeth, showing the advantages of teeth made of mineral paste, over every denomination of animal substance; to which is added, some

popular advice on the prevention and cure of the diseases of the teeth of first dentition, published in London, in 1797. But previously to this time, and as early as 1789, a Dissertation on the Advantages of Incorruptible Teeth, by Chemant, was published in Paris, where he commenced his professional career. Chemant is also the author of several other papers on the teeth and in defence of his claims as the originator of mineral teeth. Although, as is asserted, the idea of these teeth may have originated with an apothecary, by the name of Duchateau, it is now generally conceded, that Chemant was the inventor of them. At any rate, the right was secured to him by royal patent, both in Paris and England. In the introduction of mineral teeth, he was violently opposed by several French dentists, and after having maintained a controversy with them for a considerable length of time, he went to England, where, we believe, he practiced his profession until near the end of his life.

CHEM'IST. One versed in chemistry.

CHEM'ICAL. Of, or belonging to chemistry.

CHEM'ISTRY. A word supposed to be derived from the *Arabic, chema*, a secret. It is defined by Brande, to be "a department of science, the objects of which are to investigate the nature and properties of the elements of matter, and their mutual actions and combinations; to ascertain the proportions in which they unite, and the modes of separating them when united; and to inquire into the laws and powers which preside over and affect these agents."

CHEMO'SIS. From χαινω, to gape, or from χυμος, an humor. Inflammation of the conjunctiva of the eye, characterized by distention of its vessels and the formation of an elevated ring around the cornea.

CHENOPO'DIUM. The name of a genus of plants.

Chenopodium Ambrosioi'des. The systematic name of the Mexican tea-plant.

Chenopodium Anthelmin'ticum.—*Chenopodium*. Wormseed goose-foot. Jerusalem oak of America.

Chenopodium Bonus Henri'cus.—The systematic name of the English mercury.

Chenopodium Botrys. The sytematic name of the Jerusalem oak.

Chenopodium Vulva'ria. The stinking orach.

CHEQUERBERRY. See Gaultheria.

CHERRY. The fruit of the *prunus cerasus*.

CHESNUT. See Æsculus and Fagus.

Chesnut, Horse. See Æsculus Hippocastanum.

CHEVAS'TER. A double-headed roller, applied round the head, the middle supporting the chin, in cases of fracture or luxation of the lower jaw. It has received the names of *simple, double*, and *oblique*, according to the manner in which it is applied. This bandage, however, has, to some extent, been superseded by one contrived by Mr. Fox. See Fox's Bandage.

CHEVAUCHEMENT. A French word, signifying, in *General Surgery*, the riding of the extremities of a fractured bone on each other; and in *Dental Surgery*, defective arrangement of the teeth, consisting in the gradual displacement of a cuspid or incisor, which assumes a position in front of the dental arch and obliquely across one of the adjoining teeth. See Irregularity of the Teeth.

CHEWNING, F. B. Author of a pamphlet on the Importance of the Teeth, Richmond, 1833.

CHIASMOS. From χιαζω, to form like the letter X. A bandage shaped like the Greek letter χ, chi. Also, the crucial union of parts.

CHIASTOLITE. A mineral having some resemblance to the steatite.

CHIASTOS. A crucial bandage,

so called, because it resembles the letter X.

CHIASTER. See Kiaster.

CHICKEN POX. See Varicella.

CHIL'BLAIN. *Pernio; bugantia; erythema pernio;* from *chill*, cold, and *blain*, a pustule. Erythematous inflammation of the feet, hands, or other part of the body, resulting from exposure to cold.

CHILOGNA'THES. *Chilognatha;* from χειλος, a lip, and γναθος, a jaw. The myriapoda or centipedes, in which the two mandibles, or jaws, and tongue are so united as to form a large lower lip.

CHI'LON. *Cheilon; cheilitis;* from χειλος, a lip. Inflammation and swelling of the lips.

CHILO'MA. A term applied, in *Zoology*, to the upper lip or muzzle of a quadruped, when it is tumid and continued without interruption from the nostril.

CHI'MIA. Chemistry.

CHIMIA'TER. From χυμια, chemistry, and ιατρος, a physician. One who applies the science of chemistry to medical purposes.

CHIMPANZEE. The African orang, which is of a black color and from four to five feet in height. It approaches nearer to man than any other animal of the brute creation.

CHINCHIL'LA. A genus of growing mammalia, or rodents, peculiar to South America.

CHINA, PRIDE OF. Melia azedarac.

CHINCHINA. See Cinchona.

CHINCOUGH. Pertussis.

CHININUM. See Quinina.

CHINIOIDINE. *Chinoidine; chinoidina;* from *China*, cinchona. A substance separated from cinchona, supposto be an alkaloid, and to consist of a mixture of quinia, cinchonia, and a peculiar resinous matter.

CHI'RAGRA. From χειρ, the hand, and αγρα, a seizure. Gout in the joints of the hand.

CHI'ROMANCY. *Chiromantia; palmistry;* from χειρ, the hand, and μαντεια, divination. The pretended art of divination by an inspection of the lines of the hand.

CHIRO'NIA. From *chiron*, the Centaur, who discovered its use. The name of a genus of plants.

CHIRONIA ANGULARIS. The American centaury.

CHIRONIA CENTAU'RIUM. *Centaurium minus vulgare; centaurium parvum; centaurium minus;* smaller centaury. Lesser centaury. The systematic name of the officinal centaury.

CHIRONI'UM. From χειρων, the Centaur, who is said to have been the first to heal them. A malignant ulcer, with callous edges, difficult to cure.

CHIROP'ODIST. From χειρ, the hand, and πους, the foot. One whose profession is to remove corns and bunyons from the hands and feet.

CHIROTHE'CA. From χειρ, the hand, and θηκη, a sheath. A bandage, applied in spiral turns, so as to envelop the hand and fingers.

CHIRRHEU'MA. From χειρ, the hand, and ρευμα, flux. Rheumatism of the hand.

CHIRURGEON. A surgeon.

CHIRURGIA. From χειρ, the hand, and εργον, a work; because operations in surgery are performed with the hand. Surgery.

CHIRURGICUS. Surgical.

CHIRURGIEN DENTISTE. Surgeon dentist.

CHITON. A membrane or tunic.

CHLORA. See Chlorine.

CHLORATE. A compound of chloric acid with a salifiable base.

CHLORIDE. A compound of chlorine with different bodies.

CHLORINE. From χλωρος, green. A yellowish green colored gas, of a disagreeable taste and strong suffocating odor, exciting great irritation and spasm of the glottis when inhaled, even in a diluted state; incapable of supporting combustion, and soluble in

water. It is obtained by the action of hydrochloric acid on peroxyd of manganese.

CHLORITE. An earthy mineral of a green color.

CHLORO'FORM. *Perchloride* of *formyle;* so called in consequence of its connection with formic acid. A dense, colorless liquid, possessing a fragrant fruit-like ethereal odor, and a saccharine taste. The following is M. Dumas' formula for making it:

℞ Chloride of lime in powder, ℔ iv.
Water, ℔ xii.
Rectified spirit, f. ʒ xii.

"Mix in a capacious retort or still, and distil as long as a dense liquid, which sinks in the water with which it comes over, is produced."

The perchloride of formyle, or chloroform, consists of two atoms of carbon, one of hydrogen, and three of chlorine. Its specific gravity is 1.480, and the density of its vapor is 4.2. It is uninflammable, and boils at 141°. It is recommended in asthma, and when taken into the stomach, produces a grateful and soothing effect.

Professor Simpson, of Edinburg, has recently discovered that the vapor of chloroform, when inhaled, acts as a powerful anæsthetic agent, producing complete insensibility in from thirty seconds to two or three minutes, and during the last few months, it has been extensively used, both in Europe and America, not only for the purpose of producing insensibility in surgical operations, but also to prevent the pain attending parturition. Its use, however, has, in a number of instances, been attended with fatal effects.

But the practicability of producing insensibility by the inhalation of the vapor of a volatile agent had been discovered more than a year before, and for this purpose, sulphuric ether had been successfully employed, though, in some cases unpleasant and even fatal effects has resulted from its use. The merit of this most wonderful and valuable discovery, has been awarded by the trustees of the Massachusetts General Hospital, to Dr. W. T. G. Morton, a dentist of Boston, though the practicability of producing insensibility by the inhalation of the vapor of ether, is said to have been suggested to him by Dr. C. T. Jackson, an eminent chemist of that city.

Although a variety of instruments have been invented for the inhalation of ether and chloroform, no special inhaler is necessary for either. One or two tea-spoonsful of chloroform, poured upon the interior of a hollow sponge, or pocket handkerchief, or a piece of linen, and held to the mouth and nose, so that it may be fully inhaled, will, generally, in a few seconds or in one or two minutes, produce the desired effect.

CHLORO'SIS. From χλωρος, green. The green sickness. A disease affecting young females, particularly before menstruation, or those laboring under a suppression of the menses.

CHLOROTIC. Affected with, or pertaining to, chlorosis.

CHLORUM. Chlorine.

CHOC'OLATE. A paste prepared from the cacao-nut, with sugar, a nourishing article of diet.

Chocolate Tree. Theobroma cacao.

CHOAK-DAMP. A term applied by miners to irrespirable gas, or vapors containing carbonic acid.

CHOLÆUS. Biliary.

CHOLE. *Cholos.* Bile.

CHOL'EDOCHUS. From χολη, bile, and δοχος, containing or receiving. Receiving or containing bile.

Choledochus Ductus. *Ductus communis choledochus.* A duct which conveys the bile, from the liver to the duodenum.

CHOLEDOCI'TIS. Inflammation of the choledoch duct.

CHOLEDOG'RAPHY. *Choledographia,* from χολη, bile, and γραφειν, to describe. A description of that which relates to the bile.

CHOLEDOL'OGY. *Choledologia*, from χολη, bile, and λογος, a discourse. A treatise on the bile.

CHOLELITHUS. Biliary calculi.

CHOL'ERA. *Cholera morbus*, from χολη, and ρεω, I flow Purging and vomiting, generally of bile, with gripings, and spasms of the abdominal muscles, and often in the legs and arms. In the Asiatic cholera, or cholera asphyxia, the discharges resemble rice water, and the disease is generally of a more malignant and fatal character. Its pathology is but little understood.

CHOLERA INFANTUM. Cholera of infants.

CHOL'ERIC. *Cholericus*. Belonging to cholera morbus or to the bile.

CHOLESTERI'NE. *Cholesterina*; from χολη, bile, and στερεος, solid, or στιαρ, suet. An inodorous, pearly white, insipid, shining substance, of certain biliary calculi.

CHOLICE'LE. From χολη, bile, and κηλη, a tumor. A swelling caused by an accumulation of bile in the gall-duct.

CHOLOLITHUS. Biliary calculi, or concretions in the gall-duct.

CHOLO'MA. From χωλος, lame, or maimed. Lameness or distortion of a leg.

CHOLO'SES. From χολη, bile. Diseases of the liver and spleen generally.

CHONDRI'TIS. From χονδρος, cartilage, and *itis*, a termination signifying inflammation. Inflammation of cartilage.

CHONDRODES. Cartilaginous.

CHONDROGENES'IA. *Chondrogenesis*, from χονδρος, cartilage, and γενεσις, formation. Formation of cartilage; conversion of parts into cartilage.

CHONDROGLOS'SUS. From χονδρος, a cartilage, and γλωσσα, the tongue, A fasciculus of fleshy fibres, extending from the lesser cornu of the os hyoides to the tongue, forming part of the hyoglossus muscle.

CHONDROID. *Chondroides*; from χονδρος, cartilage, and ειδος, resemblance. Cartilaginous. Resembling cartilage.

CHONDROL'OGY. *Chondrologia*; from χονδρος, cartilage, and λογος, a discourse. A treatise on cartilages.

CHONDRO-PHARYNGE'US.—From χονδσος, cartilage, and φαρυγξ, the pharynx. The fibres of the muscular coat of the pharynx, arising from the lesser cornu of the os hyoides, which form part of the *constrictor* medius.

CHONDROS. Χονδρος, cartilage. A cartilage.

CHONDROSYNDES'MUS. From χονδρος, a cartilage, and συνδεω, to tie together. Union of bones by means of a cartilaginous ligament.

CHON'DRUS. The name of a genus of sea-weeds.

CHONDRUS CRISPUS. Carragreen; Irish moss.

CHONOS. The infundibulum.

CHORA. Χωρα, a region. Any void space, as the orbit of the eye, &c.

CHORDA. From χορδη, a string, The word has several significations. An interstice, a tendon, an assemblage of fibres, and it is sometimes applied to a painful tension of the penis.

CHORDA MAGNA. The tendo Achillis.

CHORDA TYMPANI. A branch of the seventh pair of nerves is so called, because it crosses the tympanum of the ear, like a string across the bottom of a drum.

CHORDA TENDINEA. A cord-like tendinous substance connecting the *carneæ columnæ* of the ventricles of the heart to the auricular valves.

CHORDEE'. A painful spasmodic contraction of the penis, sometimes attending gonorrhœa.

CHORE'A. Χορεια, from χορος, a chorus, which formerly accompanied dancing. A disease called St. Vitus' dance, characterized by convulsive motions of the limbs, resembling the movements of a person dancing.

CHO'RION. From χωρα, a recepta-

cle. The second membrane of the fetus.

CHO'ROID. *Choroides;* from χοριον, the chorion, and ειδος, resemblance. A name applied to several parts, because of their resemblance, in the number of their vessels, to the chorion.

CHOROID MEMBRANE. *Membrana choroides.* A thin membrane of the eye, lining internally the sclerotica, to which it is connected.

CHOROID PLEXUS. *Plexus choroideus.* Two membranes and vascular duplicatures of the pia mater, situated in the lateral ventricle of the brain.

CHRISIS. Χρισις, from χριω, I anoint. Inunction. The anointing of any part.

CHRISTUM. From χριω, I anoint. An ointment or liniment.

CHRO'MAS. A chromate, or salt formed by the union of chromic acid with salifiable bases.

CHRO'MIUM. From χρωμα, color, because it gives color to its combinations. A whitish, brittle and very infusible metal, extracted either from the native chromate of lead or iron. By heating it with nitre, it is converted into chromic acid.

CHRON'IC. *Chronicus;* from χρονος, time. A disease of long continuance, and, for the most part, without fever.

CHRUP'SIA From χροα, color, and οψις, sight. A disease of the eyes, or a state of vision, in which a colored impression is made on the retina.

CHRYSALIS. From χρυσος, gold. The second or inactive state of a metabolian or changeable insect, embracing the period when it is enclosed in a transparent covering, which sometimes reflects a metallic lustre, and hence the appellation.

CHRYSAN'THEMUM. From χρυσος, gold, and ανθεμον, a flower. The name of a genus of plants. The sunflower, or marigold.

CRYSANTHEMUM LEUCANTHEMUM.—The ox-eye daisy. Maudlin-wort.

CHRYSANTHEMUM PARTHENIUM. Matricaria parthenium. Motherwort.

CHRYSI'TIS. From χρυσος, gold. Litharge.

CHRYSOBALANUS. From χρυσος, gold, and βαλανος, a nut; so called because it is yellow before it is dried. The nutmeg. See Myristica Moschata.

CHRYSOBERYL. A mineral of a green color and vitreous lustre.

CHRYSOCOL'LA. From χρυσος, gold, and κολλη, cement. See gold solder.

CHRYSOCOMA. Milfoil, or yarrow.

CHRYSOGONIA. From χρυσος, gold, and γινομαι, to become. A tincture of gold.

CHRYSOLITE. From χρυσος, gold, and λιθος, a stone. Topaz.

CHRYSOSPLENIUM. From χρυσος, gold, and ασπλενιον, spleenwort. The name of a genus of plants. Golden saxifrage.

CHRYSULCUS. From χρυσος, gold, and ελκω, to take away. Aqua regia.

CHURCH, EDWARD P., late surgeon dentist, was born in Middlesex, N. York, March 3d, 1805, and at about the age of seventeen commenced the study of medicine, which he pursued with great zeal for upwards of four years. During the last two years of his studentship he was under the tuition of the author and of his brother, Dr. John Harris, and devoted a considerable portion of his time to dental surgery; upon the practice of which, after having completed his medical education, he immediately entered. Being possessed of much mechanical tact and ingenuity, he soon acquired a high degree of excellence as an operator, especially in surgical dentistry. Natchez, Mississippi, and Memphis, Tennessee, were the principal fields of his professional labor, though, the author believes he practiced about one year in Kentucky, and one year in the western part of the state of New York, near his native place.

Soon after he commenced practice, he invented a pair of forceps for the extraction of the dentes sapientiæ of the upper jaw, which are now used, it is believed, by a majority of the dentists in the United States.

Dr. Church was a close and accurate observer, a laborious student, and ambitious to excel in his profession, he availed himself of every means of information calculated to further the accomplishment of this object, which he could command; and had his life been spared a few years longer, he would have taken rank among the most scientific and skilful practitioners of dental surgery. But, while on a visit to his friends in the state of New York, he was attacked by a violent disease, supposed to be Asiatic cholera, which terminated his life, July 22d, 1832.

CHUSITE. A yellowish-green translucent mineral.

CHYLE. *Chylus.* A nutritive fluid, of a milky appearance, found in the lacteal vessels of the mesentery, and in the thoracic duct. It is extracted from the food by the absorbents of the intestines, after it has been submitted to the action of digestion.

CHYLIF'EROUS VESSELS. The lacteals, which carry the chyle from the intestines to the thoracic duct.

CHYLIFICA'TION. *Chylificatio;* from *chylus,* and *fio,* to become. The process by which the chyle is formed, or separated from the chyme.

CHYLIS'MA. From χυλος, juice. An extract, or expressed juice.

CHYLOG'RAPHY. From χυλος, chyle, and γραφη, a description. A description of the chyle, and the anatomy of the parts which elaborate it.

CHYLOPOIET'IC. *Chylopoieticus;* from χυλος, chyle, and ποιεω, I make. Any thing connected with the formation of chyle, as the chylopoietic viscera, vessels, &c.

CHYLO'SIS. The process by which food is changed into chyle. Chylification, or the formation of chyle.

CHYLU'RIA. From χυλος, chyle, and ουρον, urine. A discharge of milky urine, without any apparent lesion of the urinary organs.

CHYME. *Chymus;* from χυμος, juice. A homogeneous mass, formed by the food in the stomach, and from which, after it passes into the intestines, the chyle is separated.

CHYMIA. Χυμια. Chemistry.

CHYMIA'TER. A chemical physician.

CHYMIATRI'A. From χυμια, chemistry, and ιαομαι, to heal. The art of curing diseases by chemical remedies.

CHYMIFICA'TION. *Chymificatio;* from χυμος, juice, and *facere,* to make. The conversion of food into chyme.

CHYM'ISTRY. Chemistry.

CHYTLEN, RADIX. A cylindrical root, of a bitterish taste, brought from China.

CHYT'LON. From χεω, I pour out. A mixture of oil and water formerly used for bathing the body.

CIBA'LIS. From *cibus,* food. Of, or belonging to, food.

CIBA'TIO. From *cibus,* food. The act of taking food.

CICATRISANT. *Cicatrisans;* from *cicatrico,* to skin over. Such applications as are supposed to dispose wounds and ulcers to dry up and cicatrise.

CICA'TRIX. From *cicatrico,* to heal up, or skin over. A scar upon the skin after the healing of a wound or ulcer.

CICATRIZA'TION. The process by which a wound or ulcer cicatrizes.

CICELY, SWEET. Scandix odorata.

CICER. The name of a genus of plants.

Cicer Arietinum. The chick pea-plant.

CICHORIUM. The name of a genus of plants.

Cichorium Endivia. The endive.

Cichorium Intybus. Wild succory.

CICI'NUM OLEUM. An oil, similar in its properties to castor oil.

CICU'TA. Conium maculatum. Also, the name of a genus of plants.

Cicuta Aquatica. *Cicuta virosa;* water hemlock. An active poison, seldom employed medicinally.

Cicuta Macula'ta. American water hemlock; wild hemlock; poison-root.

CICUTARIA. *Cicuta,* hemlock. Bastard hemlock.

CIDER. The expressed juice of apples.

CILIA. *Blepharides.* The eyelashes, or hairs on the eyelids.

CIL'IARY. *Ciliaris.* Belonging to the eyelashes.

Ciliary Arteries. The ciliary arteries are divided into *short,* or *posterior,* and *anterior.* The first are numerous and penetrate the sclerotic coat of the eye near the optic nerve, are spread out upon the choroid membrane and supply the iris and ciliary processes. They originate from the opthalmic artery in three or four branches, but are divided into about twenty by the time they arrive at the sclerotica. The anterior ciliary arteries are few in number, and pierce the sclerotica near the cornea, and are principally distributed upon the iris.

Ciliary Ligament. A greyish ring situated between the iris, cornea and sclerotica.

Ciliary Muscle. That part of the orbicularis palpebrarum in the vicinity of the cilia.

Ciliary Nerves. The nerves of the ciliary ligament.

Ciliary Processes. The radiated plaits of the choroid membrane, which resemble the disk of a radiated flower, lodged in the depressions of the anterior part of the vitreous humor.

CIL'LO. From *cilium,* the eyelid. A perpetual spasmodic trembling of the eyelids.

CILLO'SIS. Cillo.

CIMO'LIA PURPURESCENS.—Fullers-earth.

CIMOLITE. A greyish, white earth, consisting of silex, alumina, oxyd of iron and water. Cimolian earth.

CINA CINA. Cinchona.

CINARA. The artichoke. Also, the name of a genus of plants.

Cinara Scolymus. The artichoke.

CINCHO'NA. The name of several kinds of Peruvian bark, the use of which is said to have been discovered by this circumstance: Some of the trees from which it is procured, having been blown by the wind into a pool of water, they lay there until they had imparted to it such a bitter taste that every body refused to drink it; but a person residing in the neighborhood, was seized with a fever and not being able to procure other water to quench his thirst, drank of this, and was soon completely cured. This circumstance was related to others ill of fevers; they drank it and were cured. Its use, however, as a medicinal agent, did not become general, until about the year 1638, when the Spanish viceroy's lady, the countess de Cinchon, was cured of fever by it, at Lima, and hence the appellation of *cortex cinchonæ,* and pulvis comitissæ, or the countess' powder. It was afterwards introduced into Europe by the Jesuits, among whom the countess, on her recovery, had distributed it, and thence arose the name of *cortex,* or *pulvis Jesuiticus,* Jesuit's bark; called, also, *cardinal del Lugo's powder,* because a large quantity of it was taken to Rome for the use of the religious poor, by that charitable prelate.

Cinchona is called, also, *cortex; bark; Peruvian bark; cortex China; China, Chinchina; kina; kinkina; quina quina; quinquina.* These barks are possessed of bitter, astringent, tonic and febrifuge properties, and have constituted one of the most valuable remedies of the materia medica, in the treatment of intermittent fevers, as well as other diseases, but since the discovery of their active principle, quinina, they have not been so much used.

CINCHONINE. *Cinchonina; cin-*

chonin; cinchonia. The active principle of cinchona lancifolia. An organic, crystalline alkali, of a white color, bitter taste, slightly astringent, insoluble in water, but soluble in alcohol and ether. But the sulphate of cinchona, which is formed directly from cinchonia, is soluble in water as well as alcohol.

CINCIN'NUS. The hair on the temples.

CI'NERES. Plural of *cinis*, ashes. Ashes.

CINERES CLAVELLATA. Potassa impura.

CINERI'TIOUS. *Cineritius;* from *cinis*, ashes. Of the color of ashes. The cortical substance of the brain is sometimes so called, from its resemblance to ashes.

CINETH'MICS. From *κινεω*, I move. The science of movements in general.

CINET'ICA. *Κινητικος*, having the power of motion. Diseases affecting the muscles. Spasms. The name of the class *neurosis*, in the Nosology of Dr. Good.

CINETUS. The diaphragm.

CIN'GULUM. From *cingo*, I bind. A girdle applied to the body below the ribs.

CINGULUM MERCURIA'LE. A girdle of flannel applied to the loins, containing mercurial ointment.

CINIS. Ashes.

CINNABAR. *Hydrargyri sulphuretum rubrum.* A red pigment called vermilion; a bisulphuret of mercury.

CINNAMO'MUM. Laurus cinnamomum. Cinnamon.

CINNAMON. Laurus cinnamomum. Also, the name of a rare mineral of a blood and hyacinth red color.

CINOPLANE'SIS. From *κινεω*, I move, and *πλανησις*, a wandering about. Irregular motion.

CINQUEFOIL. Potentilla reptans.

CION. The uvula was formerly so called from its pyramidal shape.

CI'ONIS. From *κιων*, the uvula. Swelling and elongation of the uvula.

CIONI'TIS. From *κιων*, the uvula, and *itis*, signifying inflammation. Inflammation of the uvula.

CIRCÆ'A. From *circe*, the enchantress. The name of a genus of plants. Enchanter's nightshade.

CIRCOCE'LE. Cirsocele.

CIR'CULAR. *Circularis;* from *circulus*, a circle. Having the form of a circle.

CIRCULA'TION *Circulatio;* from *circulus*, a circle, or from *circum*, around, and *ferre, latum*, to carry. In *Physiology*, the circulation of the blood through the different vessels of the body. In this vital action, the blood is ejected from the left ventricle of the heart into the aorta and taken to every part of the body, passes into the veins and is returned to the right auricle of the heart, which, after distending to receive it, contracts, forces it into the right ventricle. From thence it passes into the pulmonary artery, is conveyed to the lungs, and brought back to the heart by the pulmonary veins, entering the left auricle, it is forced into the left ventricle, to be again conveyed by the arteries to the different parts of the body.

CIRCULA'TOR. From *circulo*, to compass about. A wandering quack. A charlatan.

CIRCULUS. A circle or ring. In *Anatomy*, any part of the body which is round like a circle, as the *circulus oculi*.

CIRCULUS ARTERIO'SUS I'RIDIS. The artery which forms a circle round the iris.

CIRCULUS QUAD'RUPLEX. The name of a bandage used by the ancients.

CIRCUMAGENTES. The oblique muscle of the eye.

CIRCUMCAULA'LIS MEMBRANA. The conjunctiva.

CIRCUMCIS'ION. *Circumcisio;* from *circumcido*, to cut about. An operation practiced among the Jews, consisting in the removal of a portion of the prepuce of the infant, by a circular operation.

CIRCUMFLEX'US. From *circum*,

around, and *flexus*, bent. Bent circularly. In *Anatomy*, a name given to several organs of the body. A muscle of the palate.

Circumflexus Palati. *Tensor palati.* A muscle of the palate, which arises from the spinus process of the sphenoid bone, and is inserted into the velum pendulum palati, and the semilunar edge of the os palati, extending as far as the suture which unites the two bones.

CIRCUMGYRA'TIO. From *circumgyro*, to turn round. Turning a limb around in its socket.

CIRCUMFU'SA. In *Hygiene*, every thing which acts externally and generally upon man.

CIR'CUMSCRIBED. In *Medicine*, tumors which are distinct at their base from the surrounding parts.

CIRRHOUS. From *cirrus*, a tendril. Terminating in a curl or tendril. The apices of bodies which terminate by a spiral filiform appendage; coming from the rib of a leaf, as in the *fumaria claviculata*, and *gloriosa Lupercha*.

CIRROUS. Furnished with tendrils.

CIRSOCE'LE. From κιρσος, a dilated vein, and κηλη, a tumor. Morbid enlargement of the veins of the scrotum.

CIRSOM'PHALUS. From κιρσος, a dilated vein, or varix, and ομφαλος, naval. Varicose condition of the veins surrounding the naval.

CIRSOT'OMY. From κιρσος, a varix, and τομη, an incision. The removal, by incision, of varices.

CIRSUS. Κιρσος; from κιρσοω, to dilate. A morbid distention of any part of a vein. A varix.

CISSAM'PELOS. The name of a genus of plants.

Cissampelos Pareira. The systematic name of the pareira brava, a plant, the root of which is said to possess antinephritic and calculous properties.

CISSA'RUS. See Cistus Creticus.

CIS'TA. From κειμαι, to lie. A cyst.

CISTER'NA. From *cista*, a cist. Parts of the body which serve as repositories for fluids. The fourth ventricle of the brain is, also, so called.

CIS'TUS. The name of a genus of plants.

Cistus Creticus. The plant from which the ladanum is obtained.

Cistus Gum. Cistus creticus.

CITREUM. The citron tree.

CITRIC ACID. *Acidum citricum.* Acid of lemons. The juice of lemons.

CETRI'NULA. A diminutive of citrus. A small lemon.

CITRON. See Citrus Medica.

CITRULLUS. Cucurbatio citrullus.

CITRUS. The lemon. See Citrus Medica.

Citrus Aurantium. The systematic name of the orange tree.

Citrus Medica. The systematic name of the lemon tree. The *citron tree.* The same species of tree as the lemon.

Citrus Vulgaris. The Citrus Aurantium.

CITTA. An inordinate or voracious appetite.

CIVET'TA. An unctuous odoriferous drug, obtained from a fold in the skin between the anus and organs of generation, of an animal called a civet cat.

CLAMP. In *Mechanical Dentistry*, a piece of round or flattened wire of iron or other metal not easily fused, bent in such a manner as to hold two or more pieces of gold or silver in contact with each other while they are being soldered together.

CLAIRVOYANCE. Clear-seeing. "A clearness of sight," says professor Dungleson, "said to be communicated by animal magnetism, which not only enables the *magnetized* person to see in the dark, through stone-walls, &c., but even to observe prospects, whilst he fancies he is flying in the air, which he has never seen previously. It need hardly be said, that the possession of such powers is fabulous."

CLAP. Gonorrhœa.

CLAR'ET. *Claretum;* from *clareo,* to be clear. A light French wine, possessing tonic, and antiseptic properties, used, sometimes, with advantage in typhoid fevers.

CLARETUM. Claret.

CLARIFICA'TION. *Clarificatio; depuration;* from *clarus,* clear, and *facio,* I make. The process of freeing a fluid from all insoluble and heterogeneous matters.

CLASS. *Classis.* In *Natural History* and *Medicine,* a group, or assemblage of a certain number of objects having one or more common characters. A scientific division or arrangement of objects.

CLASSIFICA'TION. *Classificatio;* from *classis,* a class. The act of classifying, or arranging objects or things into classes.

CLAUDICA'TION. *Claudicatio;* from *claudicare,* to be lame. Halting or limping.

CLAU'STRUM. From *claudere,* to shut. An aperture capable of contracting itself, as the throat.

CLARK, J. P. Author of a Popular Treatise on the Teeth and Dentism, published in London, 1836.—Also, of a New System of Treating the Human Teeth, published, London, 1841.

CLAUSU'RA. From *claudere,* to shut. Imperforation of a canal or cavity.

CLAVA'TIO. From *clava,* to club. An articulation which does not admit of motion, as that of the teeth in their sockets, called gomphosis.

CLAVATUS. Clubbed.

CLA'VICLE. *Clavicula,* diminutive of *clavis,* a key. The clavicle or collar-bone.

CLAVIS. The clavicle. A key.

CLAVUS. A nail. A term applied in *Pathology,* to a horny cutaneous extuberance, having a central nucleus, and sensitive at its base, as corns on the toes, produced by the pressure of tight shoes. Also, a painful, pulsating affection of the forehead, giving a sensation like what might be supposed to be produced by driving a nail into this part of the head. When connected with hysteria, it is termed *clavus hystericus.*

CLAVUS OCULORUM. A staphylomia, or tumor on the eye-ball.

CLAY. *Argilla.* An argillaceous earth; of which there are a number of varieties, consisting of silica, variable quantities of alumina, and generally of more or less oxyd of iron. They are used in the manufacture of pottery, and, some of them, in the manufacture of porcelain ware and mineral teeth. See Mineral Teeth and Kaolin.

CLEAVAGE. The natural line of separation exhibited in crystals when their *laminæ* are separated by mechanical force.

CLEAVERS. Galium aparine.

CLEFT PALATE. A separation or fissure extending, sometimes through, both the hard and soft palate, in the direction from before backwards, along the median line, causing the buccal and nasal cavities to communicate with each other. See Palate, congenital defects of.

CLEIDION. The clavicle.

CLEIDO-MASTOIDEUS. From κλεις, the clavicle, and μασοειδης, the mastoid process. The sterno-cleido-mastoideus muscle.

CLEIS'AGRA. From κλεις, the clavicle, and αγρα, a seizure. Gout in the articulations of the clavicle.

CLEMATIS. The name of a genus of plants,

CLEMATIS DAPHNOI'DES. The lesser periwinkle.

CLEMATIS PASSIFLORA. The passion flower.

CLEMATIS RECTA. The systematic name of the upright virgin's bower; a plant, the leaves of which are said to possess anti-venereal virtues.

CLEMATIS VITALBA. The systematic name of the traveller's-joy.

CLEO'NIS GLUTEN. An astringent formula of myrrh, frankincense, and the white of an egg.

CLIMAC'TERIC. *Climactericus;*

from κλιμακτηρ, a step. By degrees, but commonly applied to certain critical periods of life, or periods at which certain great changes occur, as the periods of puberty in both sexes; the cessation of the flow of the menses in women, &c.

Climacteric Years. From remote antiquity, a peculiar importance has been attached to certain periods in the life of man; periods at which great changes are supposed to occur in his health and fortunes. It is said that this superstitious belief had its origin in the doctrines of Pythagoras. Sixty-three was regarded by the ancients as a climacteterical year of peculiar danger, and it was called by astrologers, "heroicus," from a prevalent belief that it was particularly fatal to great men. This year seems to have derived its peculiar importance from its being a multiple of the mystical years of seven and nine. According to most writers the climacteric periods in the life of man are multiples of the number seven; others have applied the term, to years resulting from the multiplication of seven by an odd number. Almost all countries have attached a peculiar importance to those years indicated by compounds of the number seven. Hence fourteen years have been fixed for the period of puberty; twenty-one for adult age, and Aristotle has selected thirty-five for the perfection of bodily vigor, forty-nine for the perfection of the mind; sixty-three, as the *grand* climacteric, and seventy as the ordinary limit of the age of man. In old age, or after the vital powers of the system begin to decline, an effort is sometimes supposed to be made, at these periods, by the economy, to renew the body.

CLIMATE. From κλιμα, a region. The word climate is differently defined. According to some, it is a space upon the surface of the terrestrial globe, between two circles, forming a belt parallel to the equator, and measured according to the length of days. But in a hygienic sense, it is the prevailing constitution of the atmosphere, relative to heat, moisture, and wind, peculiar to any region. "Climate," says professor Dungleson, "embraces all the physical circumstances belonging to each region—circumstances, which exert considerable influence on living beings. The dark complexion, e. g. of the inhabitants of the torrid zone is easily distinguishable from the paleness of those of the frigid—so are the diseases. They are all modified, more or less, by climate or locality. Hot climates predispose to abdominal complications in febrile affections; cold climates to thoracic.

"One of the most important considerations with regard to climates, is their comparative fitness for the residence of invalids, and, especially, of those who are liable to, or suffering under catarrhal or consumptive affections. The great object, in such cases, is to select a climate which will admit of regular and daily exercise in the open air, so that the invalid may derive every advantage which this form of revulsion is capable of effecting. To an inhabitant of the northern and middle portions of the United States—and the same applies to Great Britain, France and the northern parts of the old world, a more southern climate alone affords these advantages in an eminent degree. During the summer months there are few, if any diseases, which require a milder climate than that of the United States or of the milder districts of Europe. The temperature of the winter months is, consequently, the most important object of attention. Equability of temperature is essential, inasmuch as all sudden changes interfere with the great desideratum, exercise in the open air. In the whole continent of North America the changes are very sudden and extensive. It is not uncommon for it to range 40° between two successive days. So far, therefore, as this applies, the American climate is not well adapted to the invalid. In the southern portions, how

ever, of the Union, this objection is counterbalanced by many advantages."

In connection with his remarks on climate, Dr. Dungleson, gives a table, exhibiting the mean temperature of the year, and of the different seasons, with the mean temperature of the warmest and coldest months at different places in America, Europe, Africa, &c. but these we are compelled to omit. But in conclusion, he says, "In the United States, the most favorable region for the phthisical invalid is that of Florida, especially of Pensacola. St. Augustine is frequently chosen, but is liable to north-east storms, which interfere with the movements of the valitudinarian, and are the source of much discomfort. Still, great benefit has often been derived from it as a winter retreat. Of the Atlantic isles, Madeira appears to be best adapted for the consumption, and those affected with chronic bronchitis. In Italy, Rome and Pica—and in England, Torquay and Undercliffe, are to be preferred. Chronic rheumatism and gout are benefited by a warm climate, which, again, is unfavorable to those who are predisposed to cerebral diseases, especially to diseases that are characterized by debility and mobility of the nervous system—as paralysis, especially mania, &c. Hypochondriasis and dyspepsia require rather change of climate and travelling exercise, than a sojourn in any one."

CLIMAT'IC. Belonging to, or dependent upon, climate.

CLIN'ICAL. *Clinicus;* from κλινη, a bed. Any thing relating to a bed. Pertaining to a bed.

Clinical Lecture. A lecture given at the bed-side, or on a particular case of disease.

Clinical Medicine. That which is occupied with the investigation of disease at the bed-side, or with individual cases of disease.

CLINOID. *Clinoideus;* from κλινη, a bed, and ειδος, resemblance. Resembling a bed.

Clinoid Processes. The four processes at the upper surface of the sphenoid bone which surround the sella turcica, are so called from their resemblance to the posts of a bedstead; two are anterior and two posterior.

CLIPPINGS. A term applied, in the *Dental Laboratory,* to the small portions of gold, platina, or silver, which are cut from a plate in shaping the dimensions of a base, or other portions of the metallic part of a dental substitute, or piece of dental mechanism.

CLITORIDIS MUSCULUS. See Erector Clitoridis.

CLIT'ORIS. From κλειω, to enclose, or hide; so called because it is hid by the labia pudendorum. A small, round organ, situated above the nymphæ at the upper part of the vulva, before the orifice of the urethra in females.

CLITORIS'MUS. An enlargement of the clitoris.

CLONIC. From κλονος, agitation. Irregular spasmodic, or convulsive motions; opposed to *tonic.*

CLONUS. From κλονεω, to agitate, Clonic spasms.

CLOT. Coagulum; a clot of blood.

CLOTTY. Made up of clots.

CLOVE. See Eugenia Caryophyllata.

CLUB-FEET. A deformity, either congenital or acquired, but usually the former, caused by a contraction of the extensor muscles of the feet. The affection has been variously designated according to the nature of the deformity, as, *tip-foot,* when the heel is drawn upwards and the patient is compelled to walk on his toes; *knot-foot,* when he walks on the back of his foot; *cross-foot,* when he walks on the outer edge; *out-bow-foot,* when he walks on the inner edge, and *heel-club-foot,* when his toes are drawn upwards so that he is compelled to walk on his heels.

CLUNE'SIA. From *clunes,* the nates. Inflammation of the buttocks.

CLU'PEA. The name of a genus of fishes.

CLUPEA ALOSA. The shad.

CLUPEA ENCRASIC'OLUS. The anchovy.

CLUPEA HARENGUS. The common herring.

CLUPEA LATULUS. The whitebait.

CLUPEA PILCHARDUS. The pilchard.

CLUPEA SPRATTUS. The sprat.

CLUPEA THRYSSA. The yellow-billed sprat of the West India seas.

CLY'DON. Κλυδων. Flatulence; fluctuation of the contents of the abdomen.

CLYSMA. A clyster.

CLYSTER. *Clysterium;* from κλυζειν, to wash. A liquid thrown into the rectum by means of a syringe, or bladder, with a pipe—the nozel of the instrument being introduced into the anus.

CNESIS. From κναω, to scratch. *Cnismos.* Painful itching.

CNIDO'SIS. From κνιδη, the nettle. An itching sensation like that produced by the nettle. A dry opthalmia.

COAGULANT. That which has the power of coagulating the blood.

COAGULA'TION. *Coagulatio;* from *con,* and *ago,* to drive together. The act of changing from a fluid to a jelly-like consistency.

COAG'ULUM. A jelly-like, or soft and tremulous mass, formed in a coagulable liquid.

COAGULUM ALU'MINIS. A coagulum formed by beating the white of eggs with a little alum. It is used in cases of opthalmia, where an astringent is required.

COALES'CENCE. In *Medicine,* the union of parts previously separated, as in the case of preternatural adhesions.

COALTER'NÆ FEBRES. A double intermittent fever.

COAPTA'TION. *Coaptatio;* from *cum,* with, and *aptare,* to adjust, adapt. The act of placing the two extremities of a fractured bone in contact with each other, or of restoring a luxated bone to its proper place.

COARTICULA'TIO. From *con,* and *articulatio,* an articulation. Articulation which admits of manifest motion. See Diarthrosis and Synarthrosis.

COBALT. A brittle reddish grey metal, fused with difficulty, and generally combined in its ores with nickel, arsenic, iron and copper.

COCCINEL'LA. Diminutive of *coccus,* a berry; from its resemblance to a berry. The cochineal insect. See Coccus Cacti.

COCCO-BALSAMUM. The fruit of the amyris gileadensis, the plant from which opobalsamum is obtained.

COCCOLITE. A mineral of a green color, of various shades.

COCCULUS INDI AROMATICUS. Jamaica pepper. Myrtus pimenta.

COCCUM. A species of capsule, or dry seed vessel, more or less aggregate, with elastic sides, projecting the seeds with great force.

COCCULUS PALMATUS. The systematic name of a plant which affords the calumba root.

COCCUS. A tribe of insects.

COCCUS CACTI. The systematic name of the cochineal insect. Cochineal.

COCCYGE'US. From κοκκυξ, because it is inserted into the coccyx. A muscle which arises from the spinus process of the ischium, covers the inside of the sacro-ischiatic ligament, and is inserted at the extremity of the sacrum.

COCCYGIS OS. From κοκκυξ, the cuckoo, whose bill it is said to resemble. *Os coccygis. Cauda.* A bony appendage at the point or lower extremity of the sacrum, terminating at an acute point.

COCCYX. The os coccygis.

COCHENILIN. *Carminium.* The coloring principle of cochineal.

COCHINEAL. Coccus cacti.

COCHLEA. From κοχαζω, to turn round. The anterior of the three cavities constituting the labyrinth of the ear, is so called from its resemblance to a snail.

COCHLEA'RE. From *cochlea,* a

cockle, because its bowl represents a shell. A spoonful.

Cochleare Magnum. A table-spoonful, which is about half a fluid ounce.

Cochleare Me'dium. A dessert-spoonful, or two tea-spoonfuls.

Cochleare Minimum. A tea-spoonful, or one fluid drachm.

COCHLEA'RIA. From *cochleare*, a spoon. So called from its resemblance to a spoon. The name of a genus of plants.

Cochlearia Armora'cia. Horse-radish.

Cochlearia Officina'lis. *Cochlearia hortensis.* The common scurvy-grass, said to be a powerful antiscorbutic.

COCHLEATUS. Spiral. Applied to leaves, leguminous seeds, &c.

COCOA-NUT. See Cocos Nucifera.

COCOON'. An oblong envelop of silk, spun by the silk worm, previously to its transformation into the chrysalis state. The same name is given to the envelop of other larvæ.

COCOS BUTYRACEA. The systematic name of the plant from which the palm oil is obtained.

Cocos Nucifera. The systematic name of the plant which produces the cocoa-nut.

COC'TION. *Coctio;* from *coquere*, to boil. Digestion of the food in the stomach; boiling. A term formerly used in medicine to express the change morbific matters were supposed to experience before elimination.

COD'EINE. *Codeia*, from κωδια, a poppy head. An alkaloid, discovered in opium, by Robiquet.

CŒ'LIA. From κοιλος, hollow. A cavity in any part of the body, as the abdomen, uterus, &c.

CŒ'LIAC. *Cœliacus;* from κοιλια, the abdomen. Pertaining to the abdomen.

Cœliac Artery. *Arteria cœliaca.* The first branch of the aorta given off in the abdomen.

Cœliac Flux or Passion. From κοιλια, the abdomen. A chronic diarrhœa, in which the food is discharged in an undigested state.

Cœliac Plexus. A plexus formed of numerous nervous filaments from the semilunar ganglia of the great sympathetic, and from branches of the right and left pneumogastric, nerves. It is situated behind the stomach around the trunk of the cœliac artery.

CŒLIACA. *Cœliacus;* from κοιλια, *alvus venter.* Diseases of the digestive functions; the first class in Good's Nosology, containing two orders, *enterica* and *splanchnica.*

CŒLO'MA. From κοιλος, hollow. An ulcer of the cornea of the eye.

CŒLOSTOM'IA. From κοιλος, hollow, and στομα, mouth. Defective enunciation, characterized by hollowness of voice.

CŒNOLOGIA. From κοινος, common, and λογος, a discourse. A consultation.

CŒ'NOTES. From κινος, common. The methodic sect of Physiceous, who declared that all diseases arose from relaxation, stricture, or a mixture of both.

COF'FEA. From *kofuah*, a mixing together, from the pleasant beverage made from its berry. The coffee-tree. Also, the name of a genus of plant.

Coffea Arabica. *Jasminum Arabicum.* The plant which affords the coffee.

COHE'SION. *Cohæsio;* from *cohæreo*, I hold together. Attraction of cohesion is that power by which particles of matter are connected and held together in such a way as to resist any attempt at separation.

COHOBA'TION. *Cohobatio; cohobium, cohoph.* Distillation of a fluid, on a substance of the same kind as that upon which it was at first distilled, and repeating it three or four times.

COINDICAN'TIA. From *con*, and *indico*, to indicate. Signs furnishing the same indications, or which are confirmatory of the indications furnished by

Unable to display this page

COLLET. From *collum*, the neck. A neck or collar. A term applied by some French writers, in *Dental Anatomy*, to the neck of a tooth.

COLLIGA'MEN. From *colligo*, to tie together. A ligament.

COLLIQUAMEN'TUM. From *colliqueo*, I melt. The first rudiment of an embryo.

COLLIQUA'TION. Diminution of the solids, with copious excretion of liquids by one or more outlets.

COLLIQUA'TIVE. *Colliquativus*; from *colliqueo*, I melt. Applied to various discharges, as colliquative perspiration, diarrhœa, &c., which occasion rapid loss of strength.

COLLISIO. From *collido*, to beat together. A contusion

COLLOBO'MA. From κολλαω, to glue together. *Colobroma*. Agglutination of the eyelids together.

COLLODES. From κολλα, glue. Glutinous.

COLLUM. From κωλον, a member, as being one of the chief; or diminutive of *columna*, as being the pillar and support of the head. The part of the body between the head and chest. The neck.

COLLUTION. *Collutio*. Washing the mouth, or any other part.

COLLUTO'RIUM. From *colluo*, to wash. A mouth-wash; a gargarism.

COLLU'VIES. From *colluo*, to cleanse. Filth; excrement; the matter discharged from an old ulcer.

COLLYR'IUM. From κωλυω, I check, and ρους, a defluxion; because it stops the defluxion. This term was applied by the ancients to a medicine used to check any discharge, but at present it is restricted to a wash, or application to the eyes. The collyria of the pharmacopœias are, for the most part, metallic lotions.

Collyrium Plumbi Acetatis. A collyrium of acetate of lead.

Collyrium Plumbi Acetatis et opii. A collyrium of opium and acetate of lead.

Collyrium Zinci Acetatis. A collyrium of acetate of zinc.

Collyrium Zinci Sulphatis. A collyrium of sulphate of zinc.

COLOBO'MA. Κολοβωμα, any thing truncated or shortened. A mutilated or maimed organ.

COLOCYNTH. Cucumis colocynthis.

COLOMBO. See Calomba.

COLON *Colum; intestinum majus.* The portion of the large intestine, which extends from the cæcum to the rectum.

COLONDRE. Author of a treatise on the most frequent Diseases of the Teeth, and the Means proper for their Prevention and Cure, by. Published, Geneva, 1781.

COLONI'TIS. Acute dysentery.

COLOPHO'NIA. So called from Colophon, the city from which it was first brought. The black resin which remains in the retort, after distilling common turpentine with a strong fire.

COLOR. In *Physics*, an inherent property in light, which gives to bodies particular appearances to the eye. The primary colors according to sir Isaac Newton, are *red*, *orange*, *yellow*, *green*, *blue*, *indigo* and *violet*.

COLOS'TRUM. The first milk secreted in the breast, after parturition.

COLPOCE'LE. Vaginal hernia.

COLPOPTO'SIS. A prolapsus of the vagina.

COLT'S FOOT. Tussilago.

COLUBER BERUS. The systematic name of the viper, a poisonous reptile.

COLUMBA. Calumba.

COLUMEL'LA. Diminutive of *columna*, a column. A column or little pillar; the central column, or filament uniting the partitions in the capsules of plants; also the uvula and clitoris.

COLUMELLARES DENTES.—The cuspid teeth are so called from their shape.

COLUM'NA. A column. In *Anatomy*, applied to parts of the body, which resemble in shape or office a column, as

the *columnæ carnæ* of the heart; *columna nasi*, &c.

COLUMNÆ CARNÆ. The small fleshy columns which project into the auricles and ventricles of the heart.

Columna Nasi. The lowest part of the septum of the nose.

Columna Oris. The uvula.

COLUTORIUM. A gargle.

COMA. Κωμα. A profound sleep without being able to rouse the individual. It occurs as a symptom in many diseases.

CO'MATA. The plural of *coma*. Diseases characterized by a diminution of the powers of voluntary motion, with sleep or the senses impaired.

COM'ATOSE. Having a propensity to sleep. Affected with coma.

COMBUS'TIBLE. Capable of being burnt.

COMBUS'TIO. From *comburo*, to burn. A burn.

COMBUS'TION. *Combustio;* from *comburo*, to burn. Burning. The combination of oxygen with a combustible body. Among the phenomena which attend combustion, are the evolution of heat and light, but as these are supposed to be dependent on chemical action, they may also be expected in other chemical processes. The presence of oxygen, therefore, is not absolutely necessary to them.

COMMANDUCATIO. From *commanduco;* to eat. Mastication.

COMMEM'ORATIVE. *Commemorativus;* from *commemorare*, *con* and *memor*, to cause to remember. That which preserves the remembrance of something.

Commemorative Signs. Signs which point at the previous condition of the patient. So far as the innate constitution is concerned, none can be relied upon with more certainty than those furnished by the teeth. See Teeth, characteristics of the.

COMMI. Gum.

COM'MINUTED. *Comminutus;* from *comminuere*, *con* and *minuo*, to break to pieces. In *Surgery*, a bone broken into a number of pieces; applied also to food after it has been masticated or ground between the teeth.

COMMINU'TION. The fracture of a bone into a number of pieces; the trituration, breaking to pieces between the teeth, or mastication of food.

COM'MISSURE. *Commissura;* from *committo*, I join together. A point of union between two parts. The commissures of the lips and eyelids are the angles where they come together.

Commissure, Anterior, of the Brain. A small medullary-like substance, crossing the anterior part of the third ventricle of the brain, uniting the two hemispheres.

Commissure, Great, of the Brain. The corpus collosum of the brain, which unites the two hemispheres.

Commissure, Posterior, of the Brain. A medullary substance uniting the two hemispheres of the brain across the posterior part of the third ventricle, and above the corpora quadrigemina.

Commissure of the Uvea. The ciliary ligament.

COMMU'NICANS. From *communis*, common. That which communicates or establishes a communication. Applied to two arteries of the cranium, one anterior, and one posterior. The first extends from one anterior cerebral artery to the other; the second from the internal carotid to the posterior cerebral.

COMPACT. *Compactus;* from *con* and *pangere*, to strike, to fix. Solid, close. In *Anatomy*, it is applied to the hardest and closest parts of a bony tissue.

COMPAGES. From *compingo*, to put together. An articulation, a commissure.

COMPARATIVE. In *Anatomy* and *Physiology*, that which illustrates by comparing with the human body, or any part of it; as for example, the comparative anatomy of the teeth, embraces a knowledge of the differences that exists between these organs in different animals.

COMPLEX. *Complexus;* from *con*, with, and *plectere*, to twist. Complicated.

COMPLEX'ION. The color of the face; the aggregate of physical characters presented by a body, with reference to constitution, temperament, &c.

COMPLEX'US. Several distinct things. Complex.

Complexus Minor. *Mastoideus lateralis.* The name of a muscle which arises from the transverse processes of the last four cervical vertebræ, and is inserted into the mastoid process of the temporal bone.

Complexus Mus'culus. *Complexus seu biventer cervicis; complexus major; dorso trachelon occipital.* A muscle situated on the back part of the neck.

COMPLICA'TION. *Complicatio;* from *con*, with, and *plicare*, to fold. In *Pathology*, the presence of several diseases, or several circumstances, foreign to the primary disease.

COMPOSI'TION. *Compositio*, from *componere*, to place together. Composing or compounding; a compound, or thing compounded; a combination.

COMPOSITUM. A compound, or composition of different things.

COM'PRESS. *Compressa;* from *comprimere*, to press together. Pieces of lint or folds of a rag, or any other substance, so contrived, as with the aid of a bandage, to make pressure upon any part. In *Surgery*, a compress is employed to arrest hemorrhage, as well as various other purposes.

COMPRES'SION. To press together. The application of pressure upon any part.

Compression of the Brain. This may be caused by extravasated blood, a depressed portion of bone, an accumulation of fluid, or a tumor.

COMPRESSOR. A name applied to muscles which draw together parts upon which they act. Also the name of instruments invented for compressing the femoral artery, and other purposes.

Compressor Naris. *Rinœus nasalis; transversalis nasi; dilatatores alarum nasi.* A flat triangular muscle, arising externally at the root of the ala nasi, and is inserted with its fellow into the extremity of the os nasi, and when the two contract, they draw the sides of the nose towards the septum.

Compressor Urethræ. A muscle arising from the ramus of the ischium, and inserted into the membranous urethra, which it embraces.

COMPTO'NIA. The name of a genus of plants.

Comptonia Asplenifo'lia. Meadow-fern; astringent root. A plant possessing tonic and astringent properties.

COMPUNCTIO. *Compungo*, to prick. A puncture.

CONA'RIUM. From κωνος, because of its conical shape. A cone. The pineal gland.

CONCAVUS. Hollow; depressed in the centre.

CONCENTRA'TION. *Concentratio;* from *con*, and *centrum*, a centre. In *Medicine*, an afflux of fluids, or a convergence of vital force towards an organ. Also, the evaporation of the water of fluids for the purpose of increasing their strength.

CONCEN'TRIC. Composed of many layers arranged circularly, one within the other.

CONCEP'TION. *Conceptio;* from *concipio*, to conceive. The impregnation of the ovum in the ovarium, by the contact of the aura seminis.

CONCHA. Κογχη. The name of a liquid measure among the Athenians. In *Anatomy*, applied to several hollow parts of the body.

Concha Auriculæ. The concha of the ear.

Concha Auris. The hollow part of the cartilage of the external ear.

Conchæ Narium. The turbinated part of the ethmoid bone, and the inferior spongy bones, covered by the pituitary membrane.

CONCHUS. From κογχη, a shell, so called from its resemblance to a shell. The cranium; the sockets of the eyes.

CONCOC'TION. *Concoctio;* from *concoquo,* to digest. Concoction. Digestion.

CONCOM'ITANT. *Concomitans;* from *con,* and *comitare*—itself from *comire—cum,* and *ire,* to go with. That which accompanies, or goes with. In *Pathology,* a symptom which accompanies other symptoms.

CONCRE'TION. *Concretio;* from *concresco,* to grow together. To thicken, condense, and become more solid. It was formerly used to signify the adhesion of parts.

CONCUR'SUS. From *concurrere,* to meet together. The congeries of symptoms which constitute and distinguish a particular disease.

CONCUS'SION. From *concutio,* I shake together. In *Surgery,* agitation communicated to one organ by a fall upon another, as the brain from a fall on the buttocks. Concussion of the brain often causes very alarming symptoms.

CONDENSA'TION. *Condensatio;* from *condenso,* to make thick. A thickening of a fluid. In *Anatomy* and *Pathology,* an increase in the density of the blood, or other fluids, or any of the tissues of the body. In *Chemistry,* the subjection of æriform bodies to pressure, or the conversion of vapors to fluids by cold.

CON'DIMENT. *Condimentum;* from *condire,* to preserve or season. Any thing used for seasoning food, as butter, salt, pepper, spice, &c.

CONDUC'TOR. From *conducere,* to lead or guide. That which conducts or serves as a guide. In *Surgery,* an instrument used for directing a knife or bistoury in certain operations.

CONDUIT. A passage of small dimensions. A canal. A pipe for conveying water.

CON'DYLE. *Condylus;* κονδιλος, the joint of the finger, a tubercle or knot. An articular process of a bone, flat in one direction and round in the the other.

Condyli Digitorum Manus. The phalanges.

CON'DYLOID. *Condyloïdeus;* from κονδιλος, a condyle, and ειδος, shape. Shaped like a condyle.

Condyloid Foramina. *Foramina condyloidea.* Four foramina, two anterior, and two posterior, in the occipital bone.

Condyloid Process. A condyle.

CONDYLO'MA. *Condylus;* from κονδιλος, a knot, an eminence. A soft wart-like excrescence, of an indolent character, which appears about the anus and orifice of the genital organs, and sometimes on the fingers, as a consequence of syphilis.

CONDYLUS. A condyloma.

CONE, C. O. Author of a paper on the Morbid Effects of Decayed Teeth, published in the fifth volume of the American Journal of Dental Science.—Also, of two other articles published in the same work. The first on the Origin, Development, and Eruption of the Teeth, and the second, on the Extraction of these Organs.

CONFEC'TIO. *Confection;* from *conficio,* to make up. Any thing made up with sugar.

Confectio Alkermes. Alkermes.

Confectio Amygdalæ. A confection of almonds.

Confectio Archig'enis. A confection of castor, long pepper, black pepper, storax, galbanum, costus and opium.

Confectio Aromat'ica. An aromatic confection.

Confectio Aurantii Corticis. A confection of orange peel.

Confectio Cassiæ. A confection of cassia.

Confectio Hamec. A confection composed of the bark of the yellow myrobalans, violets, pulp of colocynth, polypody of the oak, absintheum, rhubarb, thyme, fennel, red roses, pulps of

prunes, raisins, sugar, aniseed, honey, senna, &c.

Confectio Hyacinthi. A confection of hyacinth.

Confectio Opii. A confection of opium.

Confectio Piperis Nigri. A confection of black pepper.

Confectio Rosæ Cani'næ. A confection of dog-rose.

Confectio Rosæ Gal'licæ. A confection or conserve of the red rose.

Confectio Rutæ. A confection of rue.

Confectio Scammoniæ. A confection of scammony.

Confectio Sennæ. A confection of senna.

CON'FLUENT. *Confluens;* from *con,* and *fluere,* to flow. Running together. In *Pathology,* certain exanthematous affections, in which the eruptions are so thick that they run together.

Confluent Small Pox. This disease is divided into *distinct* and *confluent.* In the latter division the pustules run into each other.

CONFLUXIO. Sympathy.

CONFORMA'TION. *Conformatio.* In *Anatomy,* the natural disposition or arrangement of the parts of the body.

CONFU'SÆ FEBRIS. Irregularity in the paroxysms of an intermittent fever.

CONFU'SIO. From *confundo,* to mix together. A disease of the eye in which the membranes become ruptured and the humors run together.

CONGELA'TION. *Congelatio,* from *congelo,* to congeal, to freeze. The act of congealing, or passing from a fluid to a solid state, as in the case of water when it freezes. The word is also used synonymously with concretion and coagulation. It was formerly applied to diseases attended with stupor and numbness, as in paralysis and catalepsy.

CON'GENER. *Congenerous;* from *con,* with, and *genus,* kind. Of the same kind or species. In *Anatomy,* muscles which concur in the same action.

CONGEN'ITAL. *Congenitus.* That which existed at birth. Thus congenital affections are those which exist at birth, as a disease or deformity. See Atrophy and Erosion of the Teeth.

CONGES'TION. *Congestio;* from *congerere,* to amass, accumulate. An accumulation of blood, bile, or other fluids in an organ.

CONGLO'BATE. *Conglobatus;* from *conglobarare,* to gather into a small ball. A gland formed of a contortion of lymphatic vessels, connected by cellular tissue, without a cavity or excretory duct.

CONGLOM'ERATE. *Conglomeratus;* from *conglomerare,* to heap upon. Applied to glands which consist of a number of small glands.

CONGLUTINA'TION. Agglutination.

CONGRESSUS. Coition.

CONIA. *Conine, conicine.* A volatile alkaloid of conium maculatum, obtained by distilling the concentrated infusion with potash.

CONICÆ PAPILLÆ. The lenticular papillæ of the tongue.

CONICUS. Conical.

CONIS. Dust; fine powder; ashes.

CONI'UM MACULA'TUM. Conium; cicuta; hemlock. A plant possessed of narcotic and poisonous properties.

CONI VASCULOSI. The conical convolutions of the vasa efferentia of the testicle.

CONJUGA'TION. *Conjugatio,* from *conjugare,* to yoke together. An assemblage; a union.

CONJUNCTI'VA MEMBRA'NA. *Conjunctiva tunica.* A mucous membrane covering the anterior surface of the eyeball and lining the inner surface of the eyelids.

CONJUNCTIVITIS. Inflammation of the conjunctive membrane.

CONJUNC'TUS. Conjoined.

CONNATE. From *con* and *natus,* born with. Congenital.

CONNEC'TION. A term used by some authors in the same sense as that of union.

CONOID. From *κωνος*, a cone, and *ειδος*, shape. Of a conical shape.

Conoid Ligament. A ligament of the coracoid process to the scapula.

CONOIDES CORPUS. The pineal gland.

CONRING, HERM. Author of a Dissertation on the Nature and Pain of the Teeth, by. Helmsladt, 1672.

CONSEC'UTIVE. *Consecutivus;* from *con*, with, and *sequor*, to follow. Following as a consequence.

Consecutive Symptoms. Phenomena which appear after, or during the decline of a disease, and as a consequence of it.

CONSENSUS. Sympathy, consent of parts.

CONSENT OF PARTS. Consensus.

CONSER'VA. From *conservare*, to keep. A conserve; a preparation composed of a recent vegetable substance and sugar, mixed together in a uniform mass of about the consistence of honey. It is the same as confection.

Conserva Absin'thii. Conserve of wormwood.

Conserva Ari. Conserve of arum.

Conserva Aurantii. Conserve of orange peel.

Conserva Lu'julæ. Confection of wood-sorrel.

Conserva Menthæ. Conserve of mint.

Conserva Scillæ. Conserve of squills.

CONSISTEN'TIA. From *consisto*, to stand still. The acme of a disease.

CONSOLIDAN'TIA. A name formerly applied to substances supposed to be capable of hardening recently healed wounds.

CONSTIPA'TION. *Constipatio;* from *constipare, con* and *stipare*, to cram close. Costiveness. A state of the bowels in which the alvine evacuations take place less frequently than usual.

CONSTITU'TION. *Constitutio.* In *Medicine*, the general condition of the organs of the body, considered with reference to their particular arrangement, and the manner in which they perform their functions. Individual organization.

Constitution of the Atmosphere. The state of the air; its temperature, humidity, dryness, heat, &c. with respect to its influence upon the human body, and during the prevalence of epidemics.

CONSTITUTIONAL. Belonging to, or inherent in, the constitution.

CONSTRIC'TOR. From *constringo*, to bind together. To bind in a circular direction. Applied to a muscle which contracts any opening in the body.

Constrictor Alæ Nasi. The depressor labii superioris alæque nasi.

Constrictor Ani. The sphincter ani.

Constrictor Cunni. The sphincter vaginæ.

Constrictor Isthmi Faucium. *Glosso-staphilinus; palato glossus.* A muscle at the opening of the fauces, occupying the anterior lateral half arches of the palate; it arises from the side of the tongue near its root, and is inserted in the velum near the uvula. It draws the velum down, and closes the opening into the fauces.

Constrictor Labiorum. *Constrictor oris.* Orbicularis oris.

Constrictor Œsophagi. Constrictor of the œsophagus. A muscle composed of a number of circular fibres, situated at the opening of the œsophagus.

Constrictor Palpebrarum. Orbicularis palpebrarum.

Constrictor Pharyngis Inferior. A muscle situated at the posterior part of the pharynx. It arises from the side of the thyroid cartilage and its inferior cornu, and from the side of the cricoid cartilage, and is inserted with its fellow in the middle line on the back of the pharynx. It assists to lessen the cavity of the pharynx, and thus compels the

food to take the downward direction into the œsophagus.

Constrictor Pharyngis Medius. A muscle at the posterior part of the pharynx; it arises from the appendix and cornu of the os hyoides, and from the thyro-hyoid ligament—its fibres ascend, run transversely and descend, giving it a triangular appearance—the upper ones overlap the superior constrictor, while the lower are beneath the inferior, and the whole pass back to be inserted into the middle tendinous line of the pharynx.

Constrictor Pharyngis Superior. A muscle on the posterior part of the pharynx, which arises from the cuneiform process of the occipital bone, from the lower part of the internal pterygoid plate of the sphenoid bone, from the pterygo-maxillary ligament, and from the posterior third of the mylo-hyoid ridge of the lower jaw, near the root of the last molar tooth, and is inserted with its fellow into the middle tendinous line on the back of the pharynx.

CONSTRIN'GENS. Astringent; styptic.

CONSULTA'TION. In *Medicine*, a meeting of two or more physicians to deliberate upon any particular case of disease.

CONSUMP'TION. *Consumptio;* from *consumere*, to waste away. A gradual or progressive emaciation of the body, especially in phthisis pulmonalis, and hence, the name consumption which this disease has received.

Consumption, Pulmonary. See Phthisis Pulmonalis.

CONTABESCEN'TIA. Consumption; atrophy.

CONTACT. *Contactus;* from *contingere*, to touch. The state of two bodies which touch each other.

CONTA'GION. *Contagio;* from *contingere*, to touch. The communication of disease from one person to another, either by direct or indirect contact. This term has also been employed to signify all atmospheric and morbid poisons, effluvia, miasmata, and infections which cause fevers, or diseases that give rise to them. But according to the strict definition of the term, it means the communication of a disease by personal contact with the sick, or by the affluvium from the body of the sick. It is generally regarded as synonymous with infection.

CONTA'GIOUS. Capable of being transmitted by direct or indirect contact.

CONTENSIO. Tension.

CONTIGU'ITY. Contact of bodies; a touching; applied to the teeth when in contact.

CONTINENCE. *Continentia;* from *continere*, to hold or keep. Chastity.

CONTINENS FEBRIS. Continued fever.

CONTINUED FEVER. A fever which proceeds without interruption.

CONTINU'ITY. *Continuitas.* Adherence of two things. Connection.

CONTORTED. Twisted. Violent movement and torsion of a part.

CONTRA-APERTU'RA. A counter opening, to give exit to matter which cannot escape from the opening that already exists.

CONTRACTIL'ITY. *Contractilitas.* That property in living parts which gives to them the power of contracting.

CONTRAC'TION. *Contractio;* from *contrahere*, to draw together. Action of contraction, which arises from excited contractility. The shortening of a muscle or fibre.

CONTRACTU'RA. Contraction of a muscle. Permanent rigidity and progressive wasting of the flexor muscles.

CONTRA-EXTENSIO. Counter extension.

Contra-Fissu'ra. From *contra*, against, and *findo*, to cleave. A fracture or injury in a part distant from that which received the blow. Counter-fissures occur most frequently in the cranium, but are not always confined to it.

Contra-Indication. Counter indication. A symptom which forbids the

employment of a remedy which, under other circumstances might be used.

CONTRAYER'VA. From *contra*, against, and *yerva*, poison. An herb supposed to be a preventive against poison.

CONTRAYERVA ALBA. *Cantrayerva Germanorum.* A species of asclepias.

CONTRAYERVA NOVA. Mexican contrayerva.

CONTRAYERVA VIRGINIANA. See Aristolochia Serpentaria.

CONTRO-STIM'ULANT. A medicine which debilitates, or diminishes the vital force.

CONTRO-STIMU'LUS. A doctrine of Rasori, founded on the contro-stimulant property of certain medicines, as emetic tartar, &c.

CONTU'SION. *Contusio;* from *contundere*, to knock together. A bruise; an injury, or lesion, in which there is extravasation of blood, caused by the shock of a body with a large surface. When the skin is divided, it is called a contused wound.

CONUS. A cone. Strobile.

CONVALES'CENCE. *Convalescentia;* from *convalescere*, to grow well. Recovery of health after the cure of disease.

CONVALESCENT. Recovering health, after the cure or subsidence of disease.

CONVALLA'RIA. From *convallis*, a valley, from its abounding in valleys. The name of a genus of plants. The lily of the valley.

CONVALLARIA MAJALIS. The lily of the valley. May-lily.

CONVALLARIA POLYGONATUM. Solomon's seal.

CONVEX. A swelling on the exterior surface of a round or spherical form; gibbous; opposed to concave.

CONVOLU'TION. *Convolutio;* from *convolvere*, to roll together. A substance rolled upon itself.

CONVOLUTIONS OF THE BRAIN. The round undulating, winding projections of the surface of the brain.

CONVOLUTIONS OF THE INTESTINES. The windings made by the intestines in the abdominal cavity.

CONVOL'VULUS. Intussusceptio. Also, the name of a genus of plants.

CONVOLVULUS JALA'PA. The Jalap plant.

CONVOLVULUS MAJOR ALBUS. Convolvulus sepium.

CONVOLVULUS SCAMMO'NIA. The scammony plant.

CONVOLVULUS SE'PIUM. A plant, the juice of which is possessed of active purgative qualities.

CONVOLVULUS SOLDANEL'LA. The sea convolvulus. Soldanella.

CONVOLVULUS TURPE'THUM. The turbith plant. Turpethum.

CONVUL'SION. *Convulsio;* from *convellere*, to pull together. Violent agitation of the whole body, attended by alternate violent involuntary contractions and relaxations of the muscles, and, as a consequence, distortion of the limbs, muscles of the face, &c. When the alternate contraction is slight, it is called *tremor*, but when violent and permanent, *tetanus*, *trismus*, &c. It may be general or partial. When general, all the muscles of the body are more or less affected, as in the case of epilepsy and hysteria. When partial, it affects only several muscles, as in the cases of chorea, risus sardonicus, &c.

CONVUL'SIVE. Tending to convulsion. Slightly spasmodic.

CONVULSIVES. Medicines which increase the irritability of the muscles, and induce convulsions, as strychnia, brucia, &c.

CONY'ZA. The name of a genus of plants. Great fleabane.

COOPERTORIUM. The thyroid cartilage.

COPA'IBA. The resinous exudation of various copaiferous trees. Balsam of copaiva.

COPAIF'ERA OFFICINALIS.—The name of a genus of plants. The systematic name of the plant from which the copaiba balsam is obtained.

COPAL. A resinous substance used in making varnishes.

COPPER. A metal of a reddish-brown color, inclining to yellow, of a disagreeable taste and smell; very malleable and ductile, but possessing the former quality in a higher degree than the latter. It is possessed of greater tenacity than either gold, silver, or platinum. It is found native, and in many ores—the most important of which are the varieties of pyrites, sulphurets of copper and iron. Its specific gravity is 8.6. It fuses at about 2000° of Fahrenheit's scale. It readily tarnishes, forming a red sub-oxyd. The salts of copper are, for the most part, of a green color, and those which are soluble are poisonous. But for its medicinal preparations, see Cuprum. In *Mechanical Dentistry*, it is used for alloying gold, and in gold solders. See Gold, Alloying of, and Gold Solder.

COPPERAS. Sulphate of iron.

COPPER NOSE. Gutta rosea.

COPRAGO'GUM. From κοπρος, the excrement, and αγω, I bring away. A cathartic.

COPROSTA'SIS. Constipation; costiveness.

COPTIS. *Coptis trifolia;* a bitter plant, sometimes used in aphthous and other ulcerations of the mouth.

COPULATION. Coition.

COPYO'PIA. Weakness of sight.

COR'ACO-BRA'CHIALIS. A muscle situated at the inner and upper part of the arm. It arises from the forepart of the coracoid process of the scapula, and is inserted about the middle of the inner side of the os humeri.

CORACO-CLAVICULAR LIGAMENT. A ligament which serves to unite the clavicle to the coracoid process of the scapula.

CORACO-HYOIDEUS. A muscle between the os hyoides and shoulder. See Omo-hyoideus.

CO'RACOID. *Coracoideus;* from κοραξ, a bird, a crow, and ειδος, resemblance. Resembling the beak of a crow. A name applied to some processes from their fancied resemblance to a crow's beak. A process situated at the anterior part of the upper margin of the scapula is designated by this name.

CORAL. From κορεω, I adorn. αλς, the sea. A beautiful production, attached to sub-marine rocks, in the form of a shrub. It is of a bright red, black, or white color, and is principally composed of a calcareous substance, secreted by the animals which form it.

CORALLI'NA. The name of a genus of marine productions, supposed to be polypifers, having the appearance of a plant, and containing gelatine, albumen, chloride of sodium, phosphate, carbonate and sulphate of lime, carbonate of magnesia, silica, oxyd of iron, and a coloring principle.

CORAL'LIUM. Coral.

CORD, UMBILICAL. The cord formed by the union of the umbilical vessels and integuments, and which connects the fetus with the placenta.

CORDA. A cord.

COR'DIAL. *Cordiacus;* from *cor, cordis,* the heart. Warm and exciting medicines, formerly supposed to be strengthening to the heart.

CORDOLIUM. From *cor,* the heart, and *doler,* pain. Cardialgia, or heartburn.

CORE. The pupil of the eye.

CORECTOM'IA. See Coretomia.

CORECTOP'IA. From κορη, the pupil, εκ, out, and τοπος, place. A deviation of the pupil of the eye from the centre, occasioned by one segment of the iris being larger than the other.

CORE'MATA. From κορεω, I cleanse. Remedies for cleansing the skin.

COREON'CION. *Coroncion;* from κορη, the pupil, and ογκινον, a hook. An instrument used for the formation of an artificial pupil.

CORETOM'IA. From κορη, the pupil, and τεμνειν, to cut. The operation for the formation of an artificial pupil.

CORIA'CEOUS. *Coriaceus;* from *corium*, leather. Leathery.

CORIAN'DRUM. The name of a genus of plants. Coriander.

Corian'drum Sati'vum. The coriander plant. The seeds of this plant have a slightly warm and grateful pungent taste; and are moderately carminative.

CORIANNON. Coriandrum sativum.

CORIS. From χειρω, to cleave, or cut, because it was used to heal wounds. St. John's-wort. Also, the name of a genus of plants.

Coris Monspeliensis. *Symphytum pœtreum.* Heath-pine.

CORIUM. *Corion.* Leather. The cutis vera.

Corium Phlogis'ticum. The greyish crust or buff, which forms on blood taken from a vein during inflammation, &c.

CORK. The bark of quercus suber.

CORMUS. Κορμος, a bulbous enlargement of the stem of a plant distended under ground.

CORN. See Clavus.

CORNACEÆ. The natural group to which the dogwood trees belong.

COR'NEA. *Membrana cornea;* from *cornu*, horn. The anterior transparent tunic, or sclerotic membrane of the eye, is so called from its horny consistence.

Cornea Opaca. The sclerotic coat of the eye.

Cornea, Opaque. Caligo.

CORNEI'TIS. Inflammation of the cornea.

CORNIC'ULA. An old cupping instrument, shaped like a trumpet, with a hole at the small end for exhausting the air by sucking.

CORNICULATE. Having horn-like processes.

CORNIFOR'MIS. Shaped like a horn.

CORNU. A horn; a corneous excrescence, as a wart on the skin; a corn; the angular cavities formed by the termination of the ventricles of the brain are called *cornua*, or horns.

Cornu Acusticum. An ear-trumpet.

Cornu Ammonis. *Cornu arietis.* The cortical substance of the human brain, as shown by cutting transversely through the pes hippocampi, is so called from its resemblance to the horn of a ram. The *pes hippocampi*, is also sometimes called the cornu ammonis.

Cornu Arietis. Cornu ammonis.

Cornu Cervi. Heartshorn. The horns of several species of the stag contain a considerable quantity of gelatin which they impart to water when boiled. When burnt they afford the *cornu ustum*, and the spirit of hartshorn, (*liquor volatilis cornu cervi*) at present superceded by ammonia, is obtained from them by distillation.

Cornu Ustum. *Cornu cervi calcinatum.* Calcined cornu cervi, which consists of phosphate of lime with a very small proportion of carbonate of lime and phosphate of magnesia.

CORNUA. The turbinated bones; also, applied to the processes of the hyoid and other bones.

Cornua Coccygis. Two tubercular eminences at the base and outer side of the coccyx, articulated with those of the sacrum.

Cornua Hyoidei Ossis. The cornua of the hyoid bone, situated above its body, and designated by *small* or *superior*, and *great* or *lateral.*

Cornua Lachrymalia. The lachrymal ducts.

Cornua Sacra'lia. The cornua of the sacrum.

Cornua U'teri. The cornua of the uterus are the angles where the fallopian tubes arise.

CORNUS. The name of a genus of plants.

Cornus Florida. Dogwood.

Cornus Circina'ta. Round-leafed dogwood.

Cornus Sericea. Swamp dogwood.

COROA. *Coruova, cornova.* The name of a very bitter bark, possessing febrifuge properties, obtained in the East Indies, and recently brought to Europe.

Unable to display this page

Corpus Glandulo'sum. The prostate gland.

Corpus Glandulosum Mulie'rum. A vascular, spongy body, surrounding the orifice of the female urethra.

Corpus Highmorianum. An oblong eminence, running along the superior edge of the testicle.

Corpus Lu'teum. A yellow spot observed in the ovarium from which the ovum has proceeded.

Corpus Muco'sum. The second layer of the skin, situated between the cutis vera and cuticle, which gives color to the body.

Corpus Nerveo-Spongiosum. The cavernous substance of the penis.

Corpus Nervosum. The cavernous body of the clitoris.

Corpus Pampinifor'me. *Pampiniforme;* from *pampinus*, a tendril. The plexus of veins which surround the spermatic artery in the abdomen.

Corpus Papilla're. The nervous and vascular papillæ of the rete mucosum.

Corpus Pyramida'le. The corpora pyramidalia.

Corpus Riticulare. The rete mucosum.

Corpus Spongio'sum Ure'thræ.—The spongy structure around the urethra.

Corpus Striatum. The corpora striata.

Corpus Wolffianum. Two bodies situated in the region of the kidneys in the young fetus, which disppear about the tenth week.

CORPUS'CLE. A very minute body; a mere atom.

Corpuscles of the Blood. The globules of the blood.

CORPUSCULAR ACTION. Molecular action.

CORRIGENT. *Corrigens; correctorius.* That which corrects; in a *medical prescription*, the addition of a substance, to modify, or render the action of another more mild.

CORRI'GIA. A leather strap; also, applied to tendons and ligaments.

CORROB'ORANT. *Corroborans;* from *coroborare*, to strengthen. Strengthening medicines. See Tonics.

CORROBORANTIA. Tonics.

CORRO'SION. *Corrosio; erosio;* from *con*, and *rodere, rosum*, to gnaw. The action of corrosive substances.

CORRO'SIVE. Substances which corrode, or when placed in contact with living parts disorganize them.

Corrosive Sublimate. Corrosive chloride of mercury; bichloride of mercury. *Hydrargyri chloridum corrosivium.*

CORRUGA'TION. *Corrugatio;* from *con*, and *ruga*, a wrinkle. Wrinkling, frowning.

CORRUGA'TOR. Applied to muscles, the office of which is to corrugate the parts upon which they act.

Corrugator Supercilii. A small muscle of the eyebrow.

CORSET DE BRASDOR. A bandage invented by Brasdor, for keeping in place the fragments of a fractured clavicle.

CORTEX. Bark, or the common integuments of plants. It is sometimes applied exclusively to the Peruvian bark, or *cortex cinchona.*

Cortex Angelinæ. The bark of a tree which grows in Grenada, the *andera inermis*, or cabbage-tree.

Cortex Angusturæ. Cusparia.

Cortex Antiscorbuticus. The canella alba.

Cortex Canellæ Malabaricæ.—Larus cassia, or wild cinnamon tree.

Cortex Cardinalis de Lugo. The Peruvian bark.

Cortex Cerebri. The grey portion of the brain, seen at the exterior of the cerebrum and cerebellum.

Cortex Chinæ Regius. Cinchona.

Cortex Massoy. Massoy bark.

CORTICAL. From *cortex*, bark. Belonging to bark.

CORU. The name of a tree which grows in India; the juice of the bark of which is employed in diarrhœa and dysentery.

CORUNDUM. A very hard crystalline mineral.

CORYMB. *Corymbus.* A species of inflorescence, formed by many flowers, the partial flower stalks being produced along the common stalk on both sides, and though of unequal length, rise to the same height, and form an even surface.

CORYMBIF'ERÆ. From *corymbus*, a corymb, and *fero*, I bear. In *Botany*, plants which bear a corymb, or produce flowers, or fruit in clusters.

CORY'ZA. Κορυζα; from καρα, the head, and ζεω, to boil. Inflammation, attended with increased discharge of mucus from the nose. A cold in the head; a catarrh.

Coryza Maligna. Malignant coryza. Ozena.

COSMET'IC. *Cosmeticus;* from κοσμεω, to adorn. An external medicine used for beautifying the skin.

COS'MOS. From κοσμος, the world, order. A regular series. The order supposed to preside over critical days.

COSSUM. A malignant ulcer of the nose.

COSSIS. A little pimple on the face, caused by inflammation, or an enlargement of a sebaceous follicle.

COSTA. In *Anatomy*, the rib of an animal; in *Botany*, the thick fibres of a leaf which proceed from the base to the apex, are called ribs.

COSTAL. *Costalis;* from *costa*, a rib. Belonging to a rib; a name applied to some muscles, arteries, nerves, ligaments, &c.

COSTA'TUS. Ribbed.

COSTIVENESS. Constipation.

COSTO. From *costa*, a rib. A prefix, applied to muscles, nerves, &c. connected with the ribs.

COSTUS. From *kasta*, Arabian. The name of a genus of plants.

Costus Arabicus. *Costus indicus; amarus; dulcis; orientalis.* Sweet and bitter costus.

Costus Corticosus. The canella alba.

COTTON. A white, soft, downy substance resembling fine wool, the produce of the pods of gossypium herbaceum. It is employed, in *Dental Surgery*, for wiping out and drying the prepared cavity of a carious tooth, preparatory to filling. See Filling Teeth.

COTULA. *Cotula fœtida, anthemes cotula.* The may-weed, or stinking chamomile.

COTUN'NIUS, LIQUOR OF. A transparent fluid of the labyrinth of the internal ear.

COTYLE'DON. The seminal leaves, or lobe that nourishes the seed of a plant.

COTYLEDONEÆ. Phonerogamia, or flowering plants.

COTYLEDONS. In *Comparative Anatomy*, the cup-like processes of the chorion, which form the placenta.

COUCHING. A surgical operation for the removal of the opaque lens from the axis of vision, by means of a needle constructed for the purpose.

COUGH. A sonorous and energetic expulsion of air from the thorax, and fauces. It occurs as a symptom of asthma, phthisis, pneumonitis, catarrh, &c., and is often attended by expectoration.

Cough, Hooping. See Pertussis.

COUNTER-EXTENSION. *Contra-extension.* Drawing a dislocated or fractured limb in a contrary direction to that in which it is acted on by the muscles, whilst the upper part is firmly retained in a suitable manner.

COUNTER-INDICATION. Contra-indication.

COUNTER-IR'RITATION. *Contra-irritation.* Irritation excited in a part, not the seat of the disease, for the purpose of inducing a derivation of blood, and changing the seat of the morbid action to a part less important than the affected organ.

Counter-Opening. See Contra-apertura.

COUNTER-SINK. A steel-stem fixed in a handle, with a cone-shaped burr at the opposite extremity, employed in the laboratory of the dentist for

enlarging the orifice of a hole in a metal plate for the reception of the head of a rivet. Also, a steel-burr so constructed as to be attached to the extremity of the mandrel of a lathe, and used for excavating ivory and osseous bases for artificial teeth, and for cutting solder from a metallic plate.

COUP DE MAITRE. The introduction of a sound or catheter into the urethra, with the convexity towards the abdomen, and afterwards giving it a half-turn, to enter the bladder.

COUP DE SANG. Sudden congestion of an organ without hemorrhage; also, loss of sensation and motion caused by congestion or hemorrhage in an important organ.

COUP DE SOLEIL. A stroke of the sun. An affection produced by exposure to the rays of the sun, as phrenitis, &c. It is generally the result of exposure of the naked head to the sun's rays, and usually occurs in hot climates, or during the hottest days of summer.

COURAP. An Indian name for an eruptive disease, attended with perpetual itching and discharge of matter.

COURBARIL. The name of the tree from which the gum anime is obtained.

COURT PLASTER. *Emplastum adhæsivum anglicum.* Black or flesh-colored silk, covered on one side with some adhesive substance, most frequently with a solution of isinglass.

COURTOIS, HONORE-GAILLARD. An eminent French dentist of the eighteenth century, and author of the Observing Dentist, or, a Collection of Observations on the Diseases of the Gums and Teeth; the Means for their Cure; the Precise Structure of the Parts, the Formation and Connection of the Teeth, with a Refutation of the Pretended Efficacy of Essences and Elixirs, and a Description of a New Pelican for the Extraction of the Molar Teeth. Published, Paris, 1775.

COURTOIS' LOTION FOR ULCERATED GUMS. Take, pulv. rock alum, ʒ ij; tinc. of myrrh and aloes ℥ i; camphor ʒ i; brandy ℥ viij. Mix. To be used as a gargle and applied to the ulcerated gums several times a day.

COUTOUBEA ALBA. A bitter plant of Guiana, supposed to be anthelmintic, emmenagogue, and anti-dyspeptic.

COVOLAM. See Cratæva.

COWBANE. *Cicuta aquatica.* Water hemlock.

COWDIE GUM. *Cowdie pine resin.* The resinous juice from the dammara australis, a coniferous tree of New Zealand. It is one of the ingredients of copal varnishes.

COWHAGE. *Cow-itch.* See Dolichos Pruriens.

COWPER'S GLANDS. *Glandulæ Cowperi.* Two small groups of mucous follicles, situated before the prostate gland, behind the bulb of the urethra, into which their excretory ducts open.

COWPER'S GLANDS IN THE FEMALE. Two small glands on each side of the entrance of the vagina, beneath the skin at the posterior part of the labia.

COW-POX. *Vaccina; vacciola.* Kine-pox. A pustular disease of the teats of cows, consisting of vesicles of a bluish and livid color, elevated at their margins and depressed in the centre, containing a limpid fluid. The discovery, by Dr. Jenner, that the introduction of this matter under the skin of the human subject, produces a similar disease, which is a preventive against small-pox, has conferred an inestimable blessing upon mankind. See Vaccination.

COXA. The haunch, or hip-joint; also, the ischium and os coccygis.

COXÆLUVIUM. From *coxa*, and *lavo*, to wash, A hip-bath.

COXAGRA. A neuralgic affection of the thigh.

COXAL'GIA. From *coxa*, hip, and ἀλγος, pain, Pain in the hip.

COXARIUS MORBUS. *Coxarum.* Hip disease.

COXO-FEMORAL. *Coxo-femoralis.*

Belonging to the coxal bone or ilium, and os femoris.

Coxo-Femoral Articulation. The hip-joint.

CRAB. A shell-fish. See Cancer.

Crab's Eyes. *Cancrorum chelæ.* Concretions found in the crayfish, consisting principally of carbonate and phosphate of lime.

Crab-Yaws. A West Indian name for a kind of ulcer on the soles of the feet. See Framboesia.

CRADLE. A semi-circular apparatus used by surgeons to prevent the contact of bed clothes with diseased parts.

CRAMP. Sudden and involuntary contraction of one or more muscles. See Spasm.

CRANE, J. W. Author of a paper on Filling Teeth, published in the 8th volume of American Journal of Dental Science, and of a work entitled, the Vade Mecum; or Brief Remarks on the Treatment of the Teeth, Eyes, &c. New York, 1847.

CRANIOL'OGY. Phrenology.

CRANIO'SCOPY. From κρανιον, the skull, and σκοπεω, to explore. The examination of the skull.

CRA'NIUM. From κρανιον, the head. The bony encasement of the brain and its membranes. It is composed of eight bones; namely, the *os frontis*, the two *ossa parietalia*, the two *ossa temporum*, the *os occipitis*, the *os ethmoides*, and the *os sphenoides*. The two last are common to the cranium and face.

Cranium Human. The human skull, or cranium.

CRANTER. From κραινειν, to finish, render perfect. The dentes sapientiæ are sometimes so called, because the presence of these teeth is necessary to a a perfect denture.

CRA'SIS. From κερανυμι, I mix. A mixture of the constituents of a fluid. The term is applied to the fluids of the body. When their constituents exist in proper proportion, health results, but when some predominates, as in dropsy, scurvy, &c. the healthy mixture of the principles of the blood, or crasis, is destroyed.

CRASSAMEN'TUM. From *crassus*, thick. The thick part of any fluid. The clot of the blood.

CRATÆVA. The name of a genus of plants. The fruit of nearly all the species have been called *garlic pears*, from its peculiar alliaceous odor.

CRAUSE. Author of a Dissertation on the Sensibility of the Teeth. Published at Jena, 1704.

CRAUSIUS. Author of a Dissertation on Tooth-ache. Published at Jena, 1681.

CREA. The anterior part of the leg. The shin.

CREAM. A thick unctuous matter which rises to the surface of milk, composed of butter, serum and casein.

Cream of Tartar. See Potassæ Bitartras.

CRE'ASOTE. *Creasotum; creazotum;* from κρεας, flesh, and σωζω, to preserve. A colorless, transparent fluid, of a disagreeable, penetrating odor, soluble in alcohol and acetic acid, obtained from tar by distillation.

CREMAS'TER. From κρεμαω, I suspend. The muscle by which the testicle is suspended, drawn up and compressed during the action of coition.

CREMNON'CUS, From κρημνος, the labia pudendi, and ογκος, a tumor. A swelling of the labia pudendi.

CREMNUS. The lip of an ulcer; also, the labia pudendi.

CRE'MOR. *Cream.* Any substance floating on the top of a liquid, and skimmed off.

Cremor Tartari. Cream of tartar,

CRENA. *Crenatura.* The irregular projection, or serratures by which an accurate junction of the bones of the cranium is formed by the sutures.

CRENA'TUS. Notched or scolloped.

CREOSOTE. Creasote.

CREPITA'TION. From *crepito*, to make a crackling noise. In *Surgery*, the noise made by the friction of the

extremities of fractured bones against each other when moved in certain directions. It is also applied to the crackling noise made by effused air into the cellular membrane when pressed between the fingers.

CREPITUS. From *crepo*, to make a noise. Crepitation. The noise made by a discharge of wind from the bowels, or by the ends of a fractured bone when rubbed against each other.

CRESCENTIA. Growth.

Crescen'tia Cuje'te. The narrow leaved calabash tree. A West India plant, the pulp of the fruit of which is acidulous and is used in diarrhœa, &c.

CRESCENTIÆ. Enlargement of the lymphatics in the groins. Waxen kernels.

CRESS. A name applied to a number of plants of a pungent taste.

Cress, Garden. Lepidium sativum.

Cress, Indian. Tropœolum majus.

Cress, Water. Sisymbrium aquaticum.

CREST. See Crista.

CRESTED. Cristatus.

CRETA. Chalk. Native friable carbonate of lime.

Creta Præparata. Prepared chalk.

CRE'TACEOUS. Chalky. Containing, or relating to, chalk.

CRETIN. One affected with cretinism.

CRET'INISM. *Cretinismus.* A peculiar endemic affection common in some parts of Valais, Tyrol, Switzerland and the Pyrenees, characterized by an idiotic expression of countenance, enfeeblement of the mental faculties, obtuse sensibility and goitre.

CRIBRATUS. *Cribrosus.* Like a sieve; perforated with holes.

CRIB'RIFORM. *Cribriformis;* from *cribrum*, a sieve, and *forma*, likeness, because it is perforated like a sieve. The ethmoid bone.

CRICK IN THE NECK An exceedingly painful rheumatic affection of the muscles of the neck, causing the person to hold his head to one side, and preventing him from turning it in any other direction.

CRI'CO-ARYTENOID. *Crico-arytenoidæus.* Pertaining to the cricoid and arytenoid cartilages.

Crico-Arytenoid, Lateral. A muscle which arises from the cricoid cartilage, and is inserted into the anterior part of the base of the arytenoid cartilage.

Crico-Arytenoid, Posterior. A triangular muscle situated at the back part of the larynx, arising from the middle of the posterior surface of the cricoid cartilage, and inserted into the base of the arytenoid cartilage.

Crico-Pharyngeus. See Constrictor Pharyngis Inferior.

Crico-Thyroideus. *Crico-thyroid.* A muscle of a triangular shape at the anterior and inferior part of the larynx. It arises from the side and anterior part of the cricoid cartilage, and is inserted into the inferior margin of the thyroid cartilage.

Crico-Thyro Pharyngæus. The constrictor pharyngis.

CRICOID. *Cricoides, cricoideus;* from κριχος, a ring, and ειδος, resemblance. The name of one of the cartilages of the larynx. It is round like a ring.

CRIMNO'DES. *Crimnoïdes,* from κριμνον, coarse meal, and ειδος, resemblance. Resembling meal. A term applied to urine, when it deposits a sediment like coarse meal or bran.

CRINALE. From *crinis*, hair. A compressing instrument formerly used in cases of fistula lachrymalis. One end of the instrument consisted of a cushion stuffed with hair, and hence its name.

CRINIS. The hair.

CRINONES. A morbid secretion produced by the sebaceous follicles in children, resembling small grubs.

CRISIS. *Diacrisis;* judgment; from κρινω, I judge. A sudden change in diseases, especially fevers, for the better or worse. Its meaning is restricted by some to favorable changes.

CRISPA'TION. *Crispatura;* from *crispare,* to wrinkle. Contraction of any part, whether natural or the result of a morbific cause.

CRISTA. The comb of a cock; a crest. A term applied in *Anatomy,* to several processes and parts of bones, and also to the clitoris. In *Surgery,* excrescences about the anus, and near the genital organs, produced by syphilitic diseases are so called from their resemblance to the comb of a cock.

Crista Galli. A triangular process, or eminence of the ethmoid bone above the cribriform plate, which gives attachment to the anterior part of the falx cerebri, so called from its resemblance to the comb of a cock.

Crista of the Ilium. The superior margin of the ilium.

Crista Urethralis. The caput gallinaginis.

CRISTA'TUS. Crested.

CRITH'MUM. From κρινω, to secrete, from its supposed virtues in promoting a secretion of urine and a discharge of the menses. Samphire, or sea-fennel.

Crithmum Maritimum. The Linnæan name of the samphire or sea-fennel.

CRIT'ICAL. *Criticus;* from *crisis,* and κεινω, to judge. Belonging to a crisis, or determining the result of a disease from certain symptoms.

Critical Days. The days on which the ancients supposed the crisis of fever would be likely to happen. According to Hippocrates and Galen, the *seventh* and *fourteenth,* were the most favorable; then the *ninth, eleventh* and *twentieth;* then the *seventeenth* and *fifth,* and, lastly, the *fourth, third* and *eighteenth.* The *sixth* day was regarded by Galen as unfavorable for the crisis. The most unfavorable days for crises, after the *sixth,* were the *eighth, tenth, twelfth, sixteenth* and *nineteenth.* The *thirteenth,* is a day not marked by any particular change, either favorable or unfavorable. Physicians of the present time place little reliance in the doctrine of critical days of fevers.

CROCINUM. From κροκος, saffron. Made with saffron; colored with saffron. A mixture of oil and saffron.

CROCUS. The name of a genus of plants. Saffron; the pharmacopœial name of the prepared stigmata of saffron. Also, the name of several preparations of metallic substances, as *crocus martis* and *crocus veneris.*

Crocus Antimonii. A sulphuretted oxyd of antimony.

Crocus Germanicus. Carthamus tinctorius, or bastard saffron.

Crocus Indicus. Curcuma longa.

Crocus Martis. Calcined sulphate of iron. See Polishing Rouge.

Crocus Sativus. The saffron plant.

Crocus Veneris. Oxyd of copper, formed by calcining the metal.

CROSS WORT. Eupatorium perfoliatum.

CRO'TALUS. From κροταλον, a rattle. The rattle-snake.

CROTAPHI'TES. From κροταφος, the temple. Pertaining to the temples. A term applied to the temporal artery, vein or nerve.

CROTAPHOS. *Crotaphium;* from κροτεω, to pulsate. A pulsating pain in the temples.

CROTCHET. A small hook. Applied by the French, in *Dental Prosthesis,* to clasps employed for the retention of a dental substitute in the mouth.

CROTON. The name of a genus of plants.

Croton Benzoe. Styrax benzoin.

Croton Cascaril'la. Croton elutheria.

Croton Eleutheria. The plant which affords the cascarilla bark.

Croton Lacciferum. The name of an East Indian tree, which yields the resinous juice which affords gum lac.

Croton Tiglium. A Ceylonese plant, every part of which is said to possess medicinal power. The root acts as a drastic cathartic. From the seeds the croton oil, *oleum tiglii,* is expressed.

Croton Oil. Oleum tiglii.

Croton Tinctorium. The lac plant.

CROTO'NE. A fungus found on trees, produced by an insect like a tick. Also, by extension, applied to small fungous tumors of the periosteum.

CROUP. Suffocating breathing, accompanied by a stridulous noise, dry cough, and expectoration of tough membranous sputum. See Cynanche Trachealis.

CROWFOOT. See Ranunculus.

Crowfoot-Cranesbill. Geranium pratense.

CROWN. *Corona.* In *Anatomy*, applied to parts of a circular form surmounting other portions of the same body, as the crown of a tooth, *corona dentis*, &c.

Crown of a Tooth. The exposed part of a tooth in the mouth, which is covered by the enamel. See Teeth.

CRU'CIAL. *Crucialis;* from *crux*, a cross. Having the shape of a cross.

Crucial Bandage. A bandage shaped like a capital T.

Crucial Incis'ion. An incision made in the shape of a cross.

Crucial Ligaments. Two ligaments of the knee-joint.

CRUCIATUS. Cruciformis.

CRU'CIBLE. From *crucio*, I torment, because metals were tortured by fire to yield up their various virtues. A vessel of a conical shape in which substances are exposed to the heat of a fire or furnace, formed of earthenware, porcelain, black-lead, silver or platina. They are used by dentists, goldsmiths and jewellers, for refining and alloying gold and silver, and for this purpose they should be formed of substances capable of bearing considerable alternations of temperature without breaking or cracking. The best crucibles are formed from pure fire-clay, mixed with pulverized old crucibles, black-lead, and pounded coke.

CRUCIF'ERÆ. The cruciferous tribe of dycotyledonous plants.

CRU'CIFORM. From *crux, crucis*, a cross, and *forma*, shape. Cruciformis; cross-shaped. Applied to the ligaments which close the articulations of the phalanges and to the crucial ligaments.

CRUDE. Unprepared; raw. Applied to natural or artificial products which require purification.

CRU'DITY. *Cruditas;* from *crudus*, crude, unprepared. Rawness, crudeness; applied to aliments in a raw state; also, to undigested substances in the stomach.

CRUOR. Coagulated blood.

CRURA. The plural of *crus*, a leg. Applied to some parts of the body from their resemblance to a leg, as *crura cerebri, crura cerebelli, crura of the diaphragm*, &c.

CRURÆUS. From *crus*, a leg. Cruralis. A muscle of the anterior part of the thigh.

CRURAL. *Cruralis.* Belonging to the leg, or lower extremity.

Crural Arch. The inguinal arch.

Crural Artery. The femoral artery.

Crural Canal. The femoral ring.

Crural Hernia. Femoral hernia.

Crural Nerve. A nerve situated on the outside of psoas muscle and femoral artery, proceeding from the lumbar plexus.

Crural Plexus. A plexus formed by the union of the last four pair of lumbar nerves.

CRURALIS. Cruræus.

CRUS. The leg; also, the thigh.

CRUSTA. A scab; a shell; the scum of a fluid.

Crusta Adamantina Dentium. The enamel of the teeth.

Crusta Genu Equinæ. Sweat or knee crust. A scab or corn formed on the knees of some horses.

Crusta Inflammatoria. The buffy coat of inflamed blood.

Crusta Petrosa. The cementum of the teeth.

Crusta Villosa. The inner or mucous coat of the stomach and intestines.

CRUSTA'CEA. A class of articulated animals protected by a hard shell.

CRUSTA'CEOUS. Covered with a shell, or resembling a shell.

CRUSTULA. A small shell or scab; also, an effusion of blood under the conjunctive membrane of the eye.

CRYMO'DES. Κρυμωδες, from κρυμος, cold. A fever in which the inner parts are hot and the external cold.

CRYMODYN'IA. From κρυμος, cold, and οδυνη, pain. Chronic rheumatism.

CRYMO'SIS. From κρυμος, cold, Diseases caused by the action of cold.

CRYPSOR'CHIS. From κρυπτω, I conceal, and ορχις, a testicle. One in whom the testes have not descended.

CRYPTA. From κρυπτος, concealed. A small oval hollow body; a follicle or small pit; a follicular gland. The rounded appearances at the ends of the small arteries of the cortical substance of the kidneys, are called cryptæ.

CRYPTOCEPH'ALUS. From κρυπτος, concealed, and κεφαλη, a head. A monster with a small head which does not project from the trunk.

CRYPTOG'AMOUS. *Cryptogamicus;* from κρυπτος, concealed, and γαμος, a marriage. Plants whose organs of fructification are concealed or not manifest.

CRYSTAL. *Crystallus;* κρυσταλλος. When fluids become solid, their particles unite and frequently assume regular determinate forms, which are termed crystals. Crystallized quartz was supposed by the ancients to be water congealed by intense cold, and hence, says Cleaveland, the term κρυσταλλος, which signifies ice, and as regularity of form is no where more beautifully exhibited than in "crystallized quartz, the name has been extended to all mineral and inorganic substances which exhibit themselves under the form of regular geometrical solids."

CRYSTALLINE. *Crystallinus.* Crystal-like. Having the form or appearance of crystal.

Crystalline Lens. A clear, transparent spherical body, situated in a depression of the anterior part of the vitreous humor of the eye, and enclosed in a membranous capsule. It transmits and refracts the rays of light.

CRYSTALLIZA'TION. *Crystallizatio;* from *crystallus,* a crystal. The act of crystallizing, or that process by which the particles of crystallizable bodies unite and assume a regular and determinate solid form. This property is possessed by most minerals, but in a more eminent degree, by saline substances.

CRYSTALLOG'RAPHY. From κρυσταλλος, a crystal, and γραφω, I describe. The doctrine of the modifications and forms of crystals.

CRYS'TALLOID. From κρυσταλλος, a crystal, and ειδος, form, resemblance. Resembling crystal or the crystalline. The capsule or membrane of the crystalline; also, the crystalline itself.

CUBEBA. Piper cubeba.

CUBEBIN. A substance extracted from cubebs.

CUBEBS. Piper cubeba.

Cubebs, Oil of. Oleum cubebæ.

CUBIFORME OS. Os cuboides.

CUBITÆUS EXTERNUS. An extensor muscle of the fingers.

Cubitæus Internus. A flexor muscle of the fingers.

CUBITAL. *Cubitalis;* from *cubitus,* the forearm. Connected with, or relating to, the forearm.

Cubital Artery. *Arteria cubitalis; arteria ulnaris.* A branch of the humeral artery, given off a little below the bend of the elbow, which passes down along the inner part of the forearm.

Cubital Nerve. The ulnar nerve.

CUBOIDES OS. From κυβος, a cube or die, and ειδος, a likeness. A tarsal bone of the foot.

CUCULLA'RIS. The trapezius muscle.

CUCULLATUS. Hooded. Shaped like a cone.

CUCUL'LUS. A hood; an odoriferous cap for the head.

CUCUMBER. See Cucumis.

CUCUMIS. The name of a genus

of plants. The pharmacopœial name of the common garden cucumber.

Cucumis Agrestis. The wild or squirting cucumber. See Momordica Elaterium.

Cucumis Colocynthis. The officinal bitter apple. Bitter apple; bitter gourd; bitter cucumber.

Cucumis Melo. The melon plant. *Melo.* Musk-melon.

Cucumis Sativus. The cucumber plant.

CU'CUPHA. See Cucullus.

CU'CURBITA. The name of a genus of plants. The watermelon plant; the gourd. Also, a chemical vessel for distilling, shaped like a gourd.

Cucurbita Citrul'lus. The watermelon plant.

Cucurbita Cruenta. A cupping glass.

CUCURBITA'CEÆ. From *cucurbita*, a gourd. Plants resembling the gourd.

CUCURBITI'NUS. A species of worm, the *tænia solium*. See Tænia.

CUCURBITULA. A cupping glass.

Cucurbitula Cruenta. A cupping glass, with scarificator.

Cucurbitula Sicca. Dry cupping.

CULMIFERÆ. Plants which have soft smooth stems.

CULUS. The anus.

CUMI'NUM. The name of a genus of plants.

Cuminum Cymi'num. The systematic name of the cummin plant.

CUMME. Author of a Dissertation on the History of the Teeth, treated Pathologically and Therapeutically. Published at Thelmst, 1716.

CUNEA'LIS SUTU'RA. The suture between the great and little alæ of the sphenoid bone and the os frontis.

CU'NEIFORM. *Cuneiformis;* from *cuneus*, a wedge, and *forma*, shape. Shaped like a wedge. A name applied to several bones, leaves, &c. It is applied to one of the bones of the carpus, and to three of the tarsus; also to the basilary process of the occipital bone.

CUNILA. Pennyroyal.

CUPEL. A shallow earthen vessel, somewhat like a cup, generally made of bone-earth, and used in assaying gold and silver.

CUPELLATION. A process of purifying or refining gold or silver by means of an addition of lead, which at a sufficiently high temperature vitrifies and promotes the vitrification and calci nation of such base metals as may be in the mixture, which are carried off in the fusible glass thus formed, while the precious metals are left in nearly a pure state. See Gold, refining of.

CUPPING. The abstraction of blood by means of a scarificator and a cupping glass.

CUPRES'SUS SEMPERVI'RENS. The systematic name of the cupressus. Cypress.

CUPRI AMMONIARETUM. See Cuprum Ammoniatum.

Cupri Ammoniati Liquor. See Liquor Cupri Ammonio-sulphatis.

Cupri Rubigo. Verdigris.

Cupri Subacetas. Impure subacetate of copper.

Cupri Sulphas. Sulphate of copper, Blue vitriol.

CUPRUM. See Copper.

Cuprum Ammoniatum. Ammoniated copper. Ammoniacal sulphate of copper.

CUPULA. The cup of the acorn.

CUPULIFERÆ. The oak and chestnut tribe of dicotyledonous plants.

CURATIO. The treatment or cure of a disease or injury.

CURA AVENACEA. A decoction of oats with nitre and sugar.

Cura Famis. Abstinence from food.

CURA'RI. A powerful poison used by the South American Indians on their weapons of war.

Curative. Relating to a cure, capable of being cured.

CUR'CUMA LONGA. The systematic name of the turmeric tree.

CURD. Coagulum of milk.

CURETTE. An instrument for the

removal of any opaque matter, which may remain after the extraction of a cataract.

CURRY. A condiment, formed of various spices.

CURTIS. Author of a work on the Structure and Formation of the Teeth. London, 1769.

CURVA'TOR COCCY'GIS. A muscle of the coccyx.

CURVA'TUS. Bent.

CURVATURE. From *curvo*, to bend. Curved or bent; a departure from an erect or straight line, as in the case of the spine, duodenum, &c.

Curvature of the Spine. A deviation of the spinal column from its regular figure.

CUSCU'TA EPITH'YMUM. The dodder of thyme.

CUSHMAN, C. T. Author of a paper, entitled, the Dental Surgeon Defined, published in the fourth volume of the American Journal of Dental Science.

CUSPA'RIA. Cusparia, or angostura bark. Cuspariæ cortex.

CUSPID TEETH. *Dentes cuspidati; dentes canini; angulares; dentes laniarii;* and the *conoides* of Chaussier. The four teeth which have conical crowns. They are situated, one on each side, in each jaw, between the lateral incisor and first bicuspis. Their crowns are convex externally and slightly concave and unequal posteriorly, and pointed at their extremity. Their crowns, when not worn, are longer than those of any of the other teeth. Their roots are larger and also the longest of all the teeth, and like the incisores, are single, but have a vertical groove on either side, laterally, extending from the neck to the extremity, showing a step towards the formation of two roots.

The upper cuspidati, sometimes called the *eye-teeth*, are larger than the lower, which have been called the *stomach teeth*. The enamel upon these teeth is thicker than on the incisores. Both anteriorly and posteriorly, a slight curve is seen in the neck of a cuspid tooth, and the crown projects a little from the parabolical curve of the dental arch.

The cuspidati of second dentition are larger and longer than those of first dentition, and as these teeth are situated nearer the attachment of the muscles which move the lower jaw than the incisores, which are at the extremity of the lever, they are enabled to overcome greater resistance. Being parted at their extremities, they are intended for tearing the food, and in some of the carniverous animals, where they are very large, they not only serve to rend, but also to hold prey.

CUSPIDATI. The plural of *cuspidatus*. The cuspid teeth.

CUSPIDATUS. From *cuspis*, a point. A cuspid tooth.

CUTA'NEOUS. *Cutaneus;* from *cutis*, the skin. Belonging to the skin.

Cutaneous Diseases. Diseases attended with eruption on the skin.

Cutaneous Absorption. Absorption by the skin.

Cutaneous Exhalation. Exhalation from the skin.

Cutaneous Nerves. Two nerves given off by the brachial plexus, an *internal* and *external*, to supply the arm and hand. Also, four nerves given off by the lumbar plexus, or anterior crural nerve, which go to the leg.

CUTCH. Catechu.

CUTIS. *Dermis; pellis.* The skin, which is said to consist of three parts, the *cutis vera*, or true skin, the *rete mucosum*, or mucous net, and the *epidermis*, or scarf skin. Others consider it as consisting of only two layers, the *cutis vera*, and *epidermis*, the *rete mucosum* being the vascular net-work of the former. The outer surface of the skin is covered by conical eminences called *papillæ* which are very nervous and vascular. The skin serves as a medium of communication with external objects, while it protects the subjacent parts, and is the seat of touch. Its color which is de-

termined by the rete mucosum varies according to age, sex, the races, &c.

Cutis Anserina. *Horrida cutis.* Goose-skin. That contracted state of the skin which accompanies the cold stage of an intermittent, in which the papillæ become prominent and rigid.

Cutis Externa. The epidermis.

Cutis Vera. The true skin.

CUTITIS. Erysipelatous inflammation.

CUVIER, F. Author of a Treatise on the Teeth of Mammiferous Animals, considered in their zoological characters, illustrated with one hundred plates. Published at Paris, 1825. This is a work of much merit, displaying a depth of research and accuracy of observation, which must ever make it valuable not only to the student of natural history, but also the odontologist.

CYA'NOGEN. Bicarburet of nitrogen. Cyanogen is a colorless gas, of a strong pungent odor. It is condensed into a limpid liquid at a temperature of 45° and under a pressure of 3.6 atmosphere. It extinguishes burning bodies, but burns with a light purple flame, and supports a strong heat without decomposition. It is composed of nitrogen and carbon.

CYANOP'ATHY. *Cyanopathia.* Cyanosis. A disease in which the skin of the whole body assumes a blue color. It is generally the result of congenital malformation of the heart, consisting of a direct communication of the right and left cavities of the heart.

CYANOSIS. Cyanopathy.

CYANURET. *Cyanide.* A compound of cyanogen with a base.

Cyanuret of Mercury. Cyanide, or bicyanide of mercury. See Hydrargyri cyanuretum.

Cyanuret of Potassium. Cyanide of potassium.

Cyanuret of Silver. Cyanide of silver.

Cyanuret of Zinc. Cyanide of zinc.

CYANURIC ACID. See Cyanogen.

CYAR. The meatus auditorius internus.

CYATHISCUS. A probe with a hollow at one end.

CYATHUS. Κυαθος, a cup. A measure both of the liquid and dry kind, equal to about an ounce and a half.

CYCLAMEN EUROPÆ'UM.—The sow-bread. The root is bitter, and is a drastic purgative and anthelmintic.

CYCLE. *Cyclus;* from κυκλος, a circle. A determinate period of a certain number of days or years, which finishes and commences perpetually.

CYCLIS'MOS. *Cycliscus.* A lozenge.

CYDO'NIA VULGARIS. *Cydonium.* The quince tree.

CYE'MA. Κυημα; from κυω, to bring forth. The product of conception.

CYESIOL'OGY. *Cyesiologia;* from κυησις, pregnancy, and λογος, a description. The doctrine of generation.

CYESIS. Conception.

CYLINDER. From κυλινδω, I roll. A long, circular body, of uniform diameter. A round tube is a hollow cylinder. The long bones are called cylindrical.

CYLINDRICAL. *Cylindroid.* Resembling a cylinder.

CYLLO'SIS. Κυλλωσις, to lame or distort. Lameness, mutilation, malconformation.

CYMATO'DES. Κυματωδης. An undulating, unequal pulse.

CYNAN'CHE. From κυων, a dog, and αγχω, I suffocate. So called from dogs being said to be subject to it. Sore throat; inflammation of the upper part of the air passages and the supra-diaphragmatic portion of the alimentary canal.

Cynanche Epidemica. *Cynanche maligna; cynanche faucium; cynanche gangrenosa; tonsillitis.* Epidemic sore throat.

Cynanche Maligna. *Cynanche gangrenosa; angina ulcerosa.* Putrid ulcerated sore throat. Gangrenous inflammation of the pharynx.

Cynanche Parotidæ'a. *Cynanche*

maxillaris; inflammatio parotidum. The mumps.

CYNANCHE PHARYNGE'A. Inflammation of the pharynx.

CYNANCHE TONSILLA'RIS. Inflammatory sore throat, characterized by redness and swelling of the mucous membrane of the fauces and tonsils, accompanied by pain, fever and difficult deglutition.

CYNANCHE TRACHEA'LIS. *Cynanche laryngea; suffocatio stridula.* Croup. A disease, for the most part, peculiar to children, and characterized by inflammatory fever, sonorous suffocative breathing, the formation of a false membrane in the trachea beneath the glottis, which is sometimes coughed up or expectorated, and at other times causes dyspnœa and suffocation.

CYNAN'CHUM. The name of a genus of plants.

CYNANCHUM MONSPELIACUM. A black resinous gum, possessing purgative properties. Montpellier scammony.

CYNANCHUM VINCETOXICUM. A European plant, the leaves of which are emetic.

CYNANCHUM VOMITO'RIUM. The ipecacuanha of the Isle of France.

CYNANTHRO'PIA. From κυων, dog, and ανθρωπος, a man. A sort of melancholy in which the patient fancies himself changed into a dog.

CYNARA'CEÆ. *Cynaræ.* One of the divisions of the great group of *compositæ*, containing the thistle, artichoke, &c.

CYN'ICUS. From κυων, a dog. Relating to, or resembling, a dog. A cynic spasm, is characterized by a contortion of one side of the face, in which the eye, cheek and mouth are dragged downwards.

CYNIPS QUERCUS FOLII. The oak-gall insect.

CYNODENTES. The canine teeth. See Cuspid Teeth.

CYNOGLOS'SUM. From κυων, a dog, and γλωσσα, a tongue. Dog's tongue. The name of a genus of plants.

CYNOLOPHOI. The spinous processes of the vertebræ.

CYNOLYSSA. Hydrophobia.

CYNOMO'RIUM COCCIN'EUM. Fungus melitensis.

CY'PERUS. From κυπαρος, a little round vessel. The name of a genus of rushes. Cyperus.

CYPERUS ESCULENTUS. The rush nut.

CYPERUS ROTUNDUS. The round cyperus.

CYPHO'SIS. *Cyphoma;* from κυφος, gibbosity. Gibbosity of the spine.

CYP'RINUM OLEUM. Oil of cypress, composed of oil of unripe olives, cypress flowers, calamus, myrrh, cardamoms, &c.

CY'PRINUS. The name of a genus of fishes.

CYPRIUM. Copper.

CYRTOSIS. *Cyrtoma;* from κυρτος, curved. Gibbous; a tumor.

CYRTOSIS CRETINISMUS. Cretinism.

CYRTOSIS RACHIA. Rachitis.

CYSSARUS. The rectum.

CYSSOTIS. Inflammation of the anus. Tenesmus.

CYST. From κυστις, a bladder. A membranous sac or cavity, in which morbid matters are collected.

CYSTAL'GIA. From κυστις, a bladder, and αλγος, pain. A painful spasmodic affection of the bladder.

CYSTEOLI'THUS. A stone in the urinary or gall bladder.

CYS'TIC. *Cysticus,* from κυσις, a bag. Belonging to the urinary or gall bladder.

CYSTIC ARTERY. The artery of the gall bladder.

CYSTIC DUCT. The duct proceeding from the gall bladder, and which, after uniting with the hepatic, forms the *ductus communis choledochus.*

CYSTICA. Remedies used for diseases of the bladder.

CYSTICER'CUS. From κυστις, a bladder, and κερκος, a tail. The tailed bladder-worm.

CYS'TIN. Cystic oxyd, which is

sometimes a constituent of urinary calculi.

CYSTIRRHA'GIA. Hemorrhage from the bladder.

CYSTIRRHŒ'A. From κυστις, and ρεω, to flow. A copious discharge of mucus from the bladder, passing out with the urine. Vesical catarrh.

CYS'TIS. From κυστις, a bag. A cyst, bladder, or small membranous bag. The urinary bladder, or membranous bag enclosing any morbid matter.

CYSTIS URINARY. The urinary bladder.

CYSTI'TIS. Inflammation of the bladder.

CYSTO-BU'BONOCE'LE. From κυστις, the bladder, and βουβον, the groin. A species of hernia in which the urinary bladder is protruded through the abdominal ring

CYSTOCE'LE. From κυστις, the bladder, and κηλη, a tumor. Hernia of he bladder.

CYSTODYN'IA. Pain in the bladder.

CYSTO-MEROCE'LE. Protrusion of the bladder through the crural arch.

CYSTOPLASTIC. An operation for the cure of fistulous openings into the bladder, consisting in the dissection of skin from a neighboring part, and uniting it by suture to the edges.

CYSTOPLEG'IC. From κυστις, the bladder, and πλησσω, I strike. Paralysis of the bladder.

CYSTOPTO'SIS. From κυστις, the bladder, and πιπτειν, to fall. Protrusion of the internal coat of the bladder into the canal of the urethra.

CYSTOTOM'IA. From κυστις, the bladder, and τεμνω, to cut. Cutting or puncturing the bladder.

CY'TOBLAST. From κυτος, a cell, and βλαστος, a germ. A cell-germ, nucleus, or areola. A primary granule, or minute spot on the growing cell, from which all animals and vegetables are supposed to be developed. The rudiment of every new cell.

CYTOBLASTE'MA. The fluid which nourishes the cytoblast.

D.

DACRYDION. Scammony.

DACRYO'MA. From δακρυω, to weep. Epiphora.

DACTYL'ION. *Dactylium;* from δακτυλος, a finger. Adhesion of the fingers to each other. It may be a congenital deformity, or caused by a burn.

DACTYLITIS. Paronychia.

DACTYLIUS ACULEATUS. A cylindrical worm of a light color, sometimes found in diseased urine.

DACTYLUS. Δακτυλος, *digitus,* a finger. See Digitus. Also, a date.

DÆDION. A bougie.

DÆMONOMAN'IA. *Dæmonia;* from δαμων, a demon, and μανια, madness. A melancholy in which the patient fancies himself to be possessed by demons.

DAGUERREOTYPE. A process recently introduced by Daguerre, a French artist, whereby the images of objects formed on a camera-obscura, are made to depict themselves on the surface of metal plates.

DAMMARA AUSTRALIS. A coniferous tree of New Zealand. See Cowdie Gum.

DAMMARIC ACID. A resinous acid of cowdie gum.

DAMSON. Prunus domestica.

DANDELION. Leontodon taraxacum.

DANDRIFF. See Pityriasis.

DANSE DE SAINT GUY. Chorea.

DAPHNE. The name of a genus of plants. The laurel, or bay-tree.

Daphne Alpi'na. *Chamælea; chamelæa.* Dwarf olive.

Daphne Gnid'ium. Spurge flax; flax-leaved daphne. The plant which affords the garou bark.

Daphne Laureola. The systematic name of spurge laurel.

Daphne Meze'reum. The systematic name of the mezereon.

DAPHNELÆ'ON. Oil of bay-berries.

DAPHNINE. The bitter crystalline principle of daphne alpina.

DARSIS. From δερω, I excoriate, I skin. Excoriation.

DARTA. Impetigo.

DARTOS. From δερω, I excoriate. A condensed cellular structure under the skin of the scrotum, which the ancients supposed to be muscular, and by means of which the outer covering is corrugated.

DARTRE. Herpes. Impetigo.

DASYM'MA. From δασυς, rough, hairy. A disease of the eye. See Trachoma.

DATE. *Palmula; dactylus.* The fruit of the phœnix dactylifera.

DATU'RA. The name of a genus of plants.

Datura Stramo'nium. Thorn apple; Jamestown weed; Jimston weed. The herbaceous part of the weed and seeds, are narcotic and poisonous. They have a fetid odor, and a nauseous, bitter taste.

DA'TURINE. *Daturia; daturina, daturinum.* A poisonous alkaloid; the active principle of datura stramonium.

DAUCI'TES VINUM. Wine, in which wild carrot has been steeped.

DAUCUS. The name of a genus of plants. The carrot.

Daucus Caro'ta. The carrot plant.

DAYTON, A. C. Rules for the preservation of the Teeth, by. Published in the Dental Intelligencer, volume third.

DAVY'S SAFETY LAMP. A lamp surrounded by a net-work of gause wire, to prevent explosion in coal mines.

DAYMARE. Ephialtes.

D'ARCET'S METAL. A metal fusible at 212° Fahrenheit, composed of eight parts bismuth, five parts lead, and three parts tin. It was at one time much used for filling teeth, especially of the lower jaw, into the cavities of which, while in a fused state, it can be easily introduced. The use of it, however, for this purpose, was soon abandoned, for the reason that the temperature at which it had to be applied, could not, in all cases, be borne, and it frequently caused inflammation of the lining membrane. Besides, it was found that it shrank from the walls of the cavity on cooling, and, consequently, did not prevent a recurrence of the disease which called for the operation.

In preparing the alloy, the lead is first melted, when it is ready to receive the tin and bismuth. It may be rendered still more fusible by adding a small quantity of mercury.

DAVIER. Forceps for the extraction of teeth.

DAY-SIGHT. Hemeralopia.

DEADLY-NIGHTSHADE. Atropa belladonna.

DEAFNESS. Diminution or complete loss of hearing, See Dysecœa.

DEATH. The final cessation of all the vital functions, the aggregate of which constitutes life.

Death, Apparent. Asphyxia, or merely a suspension of the vital functions.

Death, Black. The plague of the fourteenth century was so called.

Death, Partial. Gangrene; mortification.

DEBIL'ITANTS. Remedies which, when exhibited, reduce excitement. Antiphlogistics.

DEBIL'ITY. *Debilitas; asthenia.* Weakness.

DEC'AGRAMME. Ten grammes, 154.44 grains troy.

DECAGY'NIA. An order of plants with ten pistils.

DECAN'DRIA. A class of plants with ten stamens.

DECANTA'TION. *Decantatio.* A pharmaceutical operation, consisting in pouring off a liquor clear from the sediment, by decanting the vessel which contains it.

DECARBONIZA'TION. Hæmatosis. The transformation of venous into arterial blood by respiration.

DECHAUSSEMENT. Lancing the gum. A French word, applied, in *Dental Surgery*, to the separation of the gum from the neck of a tooth previously to extraction.

DECHAUSSOIR. A French word signifying gum-lancet.

DECID'UOUS. *Deciduus;* from *decido*, to fall off or down. Falling off. In *Botany*, applied to trees and shrubs which lose their leaves on the approach of winter. In *Dental Anatomy*, to the milk or temporary teeth. Also, to the membranes which form the sacs that enclose the teeth of both dentitions previously to their eruption.

Deciduous Membranes of the Teeth. A name applied by Mr. Thomas Bell, to the two lamellæ, which form the sacs that envelop the rudiments of the teeth, and which, on the eruption of these organs, disappear, or, as he supposes, are wholly absorbed.

Deciduous Teeth. The temporary or milk-teeth are so called, because after subserving the purposes of early childhood, they are removed by an operation of the economy, to give place to others of a larger size, and of a more solid texture. See Teeth, temporary.

DECLINE. *Declinatio.* The abatement of a disease or paroxysm. Enfeeblement of the vital powers of the body from age. Wasting of the powers of the body, accompanied by fever and emaciation, as in the case of tabes. It is also applied to persons affected with phthisis pulmonalis.

DECOCTION. The process of boiling certain ingredients in a fluid for the purpose of extracting the parts soluble at that temperature. Also, the product of this operation.

DECOCTUM. From *decoquo*, to boil. A decoction.

Decoctum Album. See Mistura Cornu Usti.

Decoctum Aloes Composi'tum.—Compound decoction of aloes.

Decoctum Althæ'æ. *Althææ officinalis.* Decoction of marsh mallows.

Decoctum Anthem'idis. *Decoctum anthemidis nobilis.* A decoction of chamomile.

Decoctum Cassiæ. Decoction of cassia.

Decoctum Cetra'riæ. Decoction of Iceland moss.

Decoctum Cinchonæ. Decoction of cinchona.

Decoctum Columbæ Compositum. Compound decoction of calumba.

Decoctum Cornus Flor'idæ. Decoction of dogwood bark.

Decoctum Daphnes Mezerei. Decoction of mezerion.

Decoctum Diaphoreticum. Compound decoction of guaiacum.

Decoctum Digitalis. Decoction of foxglove.

Decoctum Dulcamaræ. Decoction of woody nightshade.

Decoctum Geoffrææ Inermis. Decoction of cabbage-tree bark.

Decoctum Glycyrrhizæ. Decoction of liquorice.

Decoctum Guaiaci Compositum.—Compound decoction of guaiacum.

Decoctum Hæmatoxyli. Decoction of logwood.

Decoctum Hordei. Barley water.

Decoctum Hordei Compositum.—Compound decoction of barley.

Decoctum Kinæ Kinæ Compositum et Laxans. Compound laxative decoction of cinchona.

Decoctum Lichenis. Decoction of liverwort.

Decoctum Malvæ Compositum.—Compound decoction of mallows.

Decoctum Papaveris. Decoction of poppy.

Decoctum Quercus Albæ. Decoction of white-oak bark. Take of the inner bark of young green white oak, ℥ ij, water oiss. Boil down to a pint and strain. It is astringent, and in the treatment of inflamed, spongy and ulcerated gums, may be beneficially employed as a gargle.

Decoctum Sarsaparil'læ. Decoction of sarsaparilla.

Decoctum Sarsaparillæ Compositum. Compound decoction of sarsaparilla.

Decoctum Scillæ. Decoction of squill.

Decoctum Sen'egæ. Decoction of seneka.

Decoctum Taraxaci. Decoction of dandelion.

Decoctum Ulmi. Decoction of elm bark.

Decoctum Uvæ Ursi. Decoction of uva ursi.

Decoctum Vera'tri. Decoction of white hellebore.

DECOLORA'TION. *Decoloratio.* The loss of the natural color; the removal of coloring matters from any object.

DECOMPO'SITION. *Decompositio.* The separation of the component parts or principles of bodies from each other. Decay.

DECORTICA'TION. *Decorticatio.* The removal of the bark, husk, or shell, from any thing.

DECORTICATING PROCESS. A term sometimes applied, in *Dental Pathology*, to a species of caries of the teeth, designated by Duval, *peeling decay*, which consists in the detachment from the osseous tissue of the tooth, of small portions of the enamel. See Caries of the Teeth.

DECOS'TIS. Without ribs.

DECREMENTUM. Decrease, decline.

DECREPITA'TION. *Decrepitatio.* A crackling noise, as made by salts when exposed to a certain degree of heat.

DECREPITUDE. *Decrepitudo.* Old age; the last period of life; last stage of decay.

DECU'BITUS. From *decumbere*, to lie down. Act of lying down, or assuming a horizontal posture.

DECURTA'TUS. Running to a point. It is sometimes applied to a declining pulse.

DECUSSA'TION. *Decussatio;* from *decusso*, to cross each other. In *Anatomy*, applied to nerves and muscles which cross each other, as the *decussation* of the optic nerves.

DECUSSO'RIUM. An instrument used by the ancients for depressing the dura mater after trepanning.

DEDOLA'TION. The making of a wound with loss of substance.

DEER. Ruminating quadrupeds with deciduous horns, or antlers, distinguished from other ruminants by not having any gall-bladder.

DEER-BERRY. See Gaultheria.

DEFECA'TION. From *de*, and *fæces*, excrements. Expulsion of the feces from the body. In *Pharmacy*, the separation of any substance from a liquid in which it may be suspended.

DEFECTIO ANIMI. Syncope; fainting.

DEFENSIVES. *Defensiva.* A term formerly applied to applications made to wounds, for guarding them against injury, and to medicines which were supposed to resist infection.

DEF'ERENS. The vas deferens.

Deferens, Vas. See Vas Deferens.

DEFLAGRA'TION. *Deflagratio.*—Rapid combustion, as that which occurs when a mixture of sulphur and nitre is inflamed.

DEFLEC'TIO. Derivation, revulsion.

DEFLEX'US. *Deflex.* Bending slightly outward.

DEFLORA'TION. Stuprum.

DEFLUVIUM CAPILLORUM.—Baldness. Loss of the hair.

DEFLUX'ION. *Defluxio;* from *defluo,* to run off. A catarrh, or cold. A descent of humors from a superior to an inferior part.

DEFORMA'TION. *Deformatio.* A deformity.

DEFRITSCH. Author of a Dissertation on the Teeth. Published at Vienna, 1772.

DEGENERA'TION. Degeneracy. Deterioration. In *Pathology,* a morbid change in the structure of an organ.

DEGLUTI'TION. *Deglutitio;* from *de,* and *glutire,* to swallow. The act of swallowing. The various muscles of the soft palate and tongue are all concerned in conducting the food into the pharyngeal cavity. The elevators raise the palate, and at the same time protect the posterior nares from regurgitation of the food, while the tensor puts it on the stretch, and after having, by the approximation of the tongue and palate, been conveyed behind the velum, the constrictor isthmi-faucium, and palato-pharyngeus draw the palate down, which by the aid of the tongue, cuts off the communication between the fauces and mouth, while at the same time the passage into the posterior nares is nearly closed by the contraction of the muscles of the posterior palatine arch. The food is now conveyed by the action of the constrictor muscles of the pharynx, into the œsophagus, and through which it is forced by the contraction of its muscular coat into the stomach.

The passage of the food from the mouth to the œsophagus, is mostly the result of voluntary action, but the propulsion of it down this duct, is involuntary.

The deglutition of liquids is always more difficult than solids, because the particles of a fluid have a greater tendency to separate, and to prevent which, it is necessary that it should be more accurately embraced by the parts which convey it from the mouth into the œsophagus.

DEGMOS. A gnawing sensation; a biting pain about the upper orifice of the stomach.

DEGREE. From *gradus,* a step. A step or stage. An arbitary measure on a scale of temperature, &c. The French use it to signify the intensity or particular stage of an incurable disease, as phthisis, cancer, &c.

DEJEC'TION. *Dejectio;* from *dejecio,* to go to stool. The expulsion of the feces.

DEJECTO'RIOUS. Cathartic.

DELABARRE, C. F. A celebrated French dentist and author of several works on the science and art of dental surgery. The first, entitled a Dissertation upon the History of the Teeth, was published in Paris, 1806. The second, Odontology, or Observations on the Human Teeth, was published in 1815, and contains many valuable as well as ingenious observations. The third is entitled, a Treatise on Second Dentition, and the Natural Method of directing it; followed by a summary of Stomatic Semiology. Published, 1819. This is one of the most elaborate and valuable works which has been published upon these subjects. Some of the physiological views contained in it, have, however, been shown, by subsequent observations, to be evidently erroneous. A translation of this work was published in the library part of the sixth volume of the American Journal of Dental Science. The fourth work, a Treatise on the Mechanical part of the Art of the Dentist, was published in two volumes in 1820. At the time of its publication, this was the best work extant upon the subject. The fifth and last work which we shall notice as coming from the pen of Delabarre, was intended by the author as a supplement to his third, and is entitled, Natural Method of directing Second Dentition, &c. This was published, 1826.

DELAP'SUS. *Delapsio.* Prolapsus.

DELETE'RIOUS. *Perniciosus;* from δηλεω, I injure. Poisonous; destructive; hurtful; injurious.

DELIGA'TIO. From *deligare*, to bind up. The act of applying a bandage.

DELIGA'TION. *Deligatio*. Application of a bandage.

DELIQUES'CENT. *Deliquescentia;* from *deliquesco*, to melt down. The assumption of a fluid state by the absorption of moisture from the atmosphere. There are certain salts which do this, as the chloride of lime, acetate of potassa, and carbonate of potassa, and hence they are called deliquescent salts.

DELIQUIUM ANIMI. Fainting, syncope.

DELIR'IOUS. One affected with delirium.

DELIR'IUM. From *deliro*, to rave. Wandering of the mind, as in cases of disease, from disturbed function of the brain. It may be violent, as in the case of acute inflammation of the membranes of the brain, or low and muttering, as in typhoid fevers.

Delirium Furiosum. Mania.

Delirium Senile. Senile insanity; imbecility and moral insanity resulting from old age.

Delirium Tremens. *Mania à potû; delirium ebriositatis; delirium potatorum.* Delirium peculiar to drunkards, attended with great agitation and sleeplessness.

DELITES'CENCE. From *delitesco*, to hide. Sudden termination of inflammation by resolution.

DELMOND. Author of a Memoir upon a New Method of Destroying the Nerves of the six Anterior Teeth, so as to prevent their extraction. Published, Paris, 1824.

DE LOUDE, S. C. Author of a Treatise on Surgical, Operative and Mechanical Dentistry. Published, London, 1840.

DELPHI'NIUM. From δελφινος, the dolphin, so called from the resemblance of its flower to the head of the dolphin. The larkspur. Also, the name of a genus of plants.

Delphinium Consol'ida. The systematic name of the consolida regalis. The branching larkspur.

Delphinium Staphisa'gria. The systematic name of the stavesacre.

DELTIFORM. Deltoid.

DELTOID. *Deltoides;* from the Greek letter Δ, and ειδος, a likeness. A triangular muscle of the shoulder, extending from the outer third of the clavicle, and from the acromian and spine of the scapula, to the middle of the humeri.

DEMEN'TIA. From *de*, and *mens*, without mind. Insanity; absence of thought.

DEM'ONSTRATOR. From *demonstrare*, to exhibit. In *Anatomy*, one who exhibits the various parts of the body; an instructor. In *Dental Surgery*, one who demonstrates and teaches the method of performing the various operations connected with this branch of medicine.

DEMUL'CENT. *Demulcens;* from *demulceo*, I soothe. A medicine capable of obviating and preventing the action of acrid and irritating humors.

DEMUSCULA'TUS. From *de* and *musculus*, a muscle. Without flesh; emaciated.

DENIGRA'TION. *Denigratio;* from *denigrare*, to blacken. Act of becoming black, as in cases of a bruise, and sphacelus.

DENS. A tooth. Also, the specific name of many herbs, from their supposed resemblance to the teeth of some animal, as *dens leonis*, leontodon taraxacum.

Dens Exsertus. From *dens*, a tooth, and *ex* and *sers*, to thrust out. A gag-tooth; a tooth which projects or stands out from the dental arch.

DENT. A tooth.

DEN'TAGRA. *Denticeps*, from *dens* a tooth, and αγρα, a seizure. An instrument for extracting teeth; tooth forceps. The term is also applied to toothache.

DENTAL. *Dentalis, dentarius;* from *dens*, a tooth. Pertaining to the teeth.

Dental Apparatus. The teeth,

together with the alveoli in which they are implanted, and jaws. Also, a set of artificial teeth. The instruments and appliances employed in dental operations, are sometimes so termed.

Dental Arches. *Arcades dentaires.* The arches formed by the teeth when arranged in their sockets in the alveolar borders.

Dental Arteries. The arteries which supply the teeth with blood. The teeth of the upper jaw are supplied from the *superior dental,* which winds around the maxillary tuberosity from behind forwards, sending off twigs through the posterior dental canals to the molares and bicuspides, and from a twig of the *infra orbitar,* sent off just before it emerges from the infra orbitar foramen, which passes down the anterior canal to the incisores and cuspidati. The teeth of the lower jaw are supplied from the *inferior dental artery,* given off by the internal maxillary. It enters the posterior dental foramen, and as it passes along beneath the roots of the teeth, sends up a twig to each, until it arrives at the mental foramen, from which, after sending a small branch to the incisores, it emerges.

Dental Atrophy. *Dental atrophia.* See Atrophy of the Teeth.

Dental Bone. The osseous part of a tooth. See Tooth-bone.

Dental Canals. The canals which perforate the alveoli, and give passage to the blood vessels and nerves that enter the teeth at the extremities of their roots.

Dental Caries. See Caries of the Teeth.

Dental Car'tilage. The cartilaginous ridge along the margins of the gums, which serves as a substitute for the teeth during the first months of infancy.

Dental Cav'ity. *Cavitas pulpæ; cavum dentis; antrum dentale.* The pulp cavity. The cavity occupied by the dental pulp in the interior of a tooth. Its shape resembles that of the tooth; it is larger in young persons than in old, and when the teeth suffer great loss of substance, either from mechanical or spontaneous abrasion, it sometimes becomes completely obliterated. See Abrasion of the Teeth.

Dental Ex'cavator. An instrument employed for the removal of the decayed part of a tooth, preparatory to the operation of filling. A number of instruments varying in size and shape are required for this purpose, by every practitioner of dental surgery, to enable him to remove with facility caries from any part of a tooth, and to give to the cavity such shape as may be required for the permanent retention of a filling. It is important, therefore, that every dentist be able, in cases of emergency, to construct his own excavators. Instruments of this description should be made from the very best of steel, and be so tempered as neither to break nor bend at their points. See Tempering.

Dental Exosto'sis. See Exostosis of the Teeth.

Dental Files. Files manufactured expressly for operations upon the teeth, especially for the removal of superficial caries from their approximal surfaces, and for separating them when it is deep seated, preparatory to filling, as well as for the removal of decayed crowns of teeth preparatory to the application of artificial pivot teeth. See Files, for separating front, bicuspid and molar teeth, and for preparing the root of a tooth for an artificial crown.

Dental Forceps. See Forceps, for extracting teeth.

Dental Fol'licle. *Folliculus dentis; follicule dentaire.* A follicle, formed of two membranes, one outer, and one inner, in which a tooth is situated during the early stages of its formation, and which ultimately becomes a sac, completely enclosing it. See Dental Sac.

Dental Formula. A notation used to designate the number and class of teeth in mammiferous animals, forming an important generic character.

In the cats, or genus *felis*, for example, the formula is, incisores, $\frac{6}{6}$, canini, $\frac{1}{1}$, $\frac{1}{1}$, præmolares, or bicuspides, $\frac{2}{2}$, $\frac{2}{2}$. Molares, $\frac{2}{1}$, $\frac{2}{1}$, =30, signifying that they have six incisores in each jaw, one canine tooth on both sides of each jaw, two præmolares, or bicuspides, on each side, in each jaw, and two true molares. In man, the dental formula is, incisores $\frac{4}{4}$, canines, or cuspidati, $\frac{1}{1}$, $\frac{1}{1}$; præmolares, or bicuspides, $\frac{2}{2}$, $\frac{2}{2}$; molares $\frac{3}{3}$, $\frac{3}{3}$. The upper figures refer to the upper, and the lower figures to the lower jaw.

Dental In'struments. Instruments employed in operations on the teeth, such as excavators, filling instruments, files, forceps, &c. There is no class of surgical instruments in which more care and mechanical skill is required in their manufacture than those used by the dental surgeon.

Dental Lab'oratory. A room or place where the operations connected with mechanical dentistry are performed. The fixtures and implements belonging to it, when complete, are a small forge, anvil and hammers, ingot moulds, rolling mill, draw-bench, lathe, with grinding and polishing wheels and brushes, work-table, small bench-vice, sliding tongs, pliers, snips or shears for cutting gold plate, soldering lamp, blow-pipe, files, scrapers, burnishers, pickling pot, and sometimes the fixtures used in the manufacture of porcelain artificial teeth. But as the manufacture of these teeth does not properly come within the province of the dentist, the fixtures required for the purpose, are not essential to his laboratory.

Dental Necro'sis. See Necrosis of the Teeth.

Dental Nerves. The nerves which go to the teeth. The teeth of the upper jaw are supplied from the *superior maxillary*. Three or four branches descend on the tuberosity of the superior maxillary, and entering the posterior dental canals are conveyed to the molar teeth. The incisores, cuspidati and bicuspides are supplied by a branch from the *infra orbital*, which passes along the front of the maxillary sinus in the anterior dental canal, sending off twigs to each of these teeth.

The teeth of the lower jaw are supplied frem the third branch of the *inferior maxillary*, which, in its course, passes between the pterygoid muscles, then along the ramus of the lower jaw under the pterygoideus internus to the posterior dental foramen, which it enters along with the artery and vein, sending off twigs to the roots of the molar and bicuspid teeth, until it arrives at the mental foramen; here it divides into two branches; the smaller is continued in the substance of the jaw, supplying the cuspid and incisor teeth—the larger passes out through the mental foramen to be distributed to the muscles and integuments of the lower lip, and, finally, communicates with the facial nerve.

Dental Neural'gia. See Odontalgia.

Dental Opera'tion. An operation upon the teeth.

Dental Orthopædi'a. The art of correcting deformity, occasioned by irregularity or other cause, of the teeth. See Irregularity of the Teeth, treatment of.

Dental Or'ganism. The organism of the teeth; the organical structure of these organs; the vital forces which govern them.

Dental Perios'teum. *Periosteum dentium.* A white fibrous membrane which invests the roots of the teeth, and to which it is intimately united by fibrous prolongations and numerous minute blood vessels. It is through the medium of this, and their lining membrane, that these organs receive their nutritive fluids.

The dental periosteum is supposed to be a reflection of the alveolar; it covers the root of each tooth, is attached to the gums at the neck, and to the blood vessels and nerves where they enter the extremity, and Mr. Bell is of the

opinion that it enters the cavity and forms the lining membrane, but this is a mere conjecture, the correctness of which, we think, it may not be easy to establish. This membrane constitutes the bond of union between the roots of the teeth and alveolar cavities.

Dental Periosti'tis. *Periostitis dentium.* Inflammation of the dental periosteum. See Odontalgia.

Dental Pulp. A soft vascular, and highly sensitive substance, of a reddish-grey color, occupying the cavity of a living tooth. It also constitutes the rudiment of a tooth. See Teeth, origin and formation of.

According to Mr. Nasmyth, the structure of a dental pulp is cellular, like that of the osseous or dentinal part of a tooth. When the internal structure is examined, he says, "the number of minute cells" which present "themselves in a vascular form is very remarkable; they seem, indeed, to constitute the principal portion of its bulk." They are described by this able writer as varying in size from the smallest microscopic appearance, to one-eighth of an inch in diameter, and as being disposed in different layers "throughout the body of the pulp." He also states, that careful investigation has convinced him that they exist on the surface of the pulp in opposition to the ivory (bone) of the tooth, and that these are essentially concerned in the development of the tooth. The correctness of this opinion would seem to be fully confirmed by a number of diagrams representing the microscopic appearance of the structure of this tissue. It would appear, by a comparison of some of these diagrams, that the cells or vesicles are arranged in a more distinct and regular form on the surface than in the interior of the pulp, presenting the appearance of beautiful reticular leaflets.

With regard to the connection of the pulp with the bone, and as to whether the latter be simply a product of the former, or a transformation of its substance, Mr. Nasmyth says: "Although this is by far the most interesting point in dental physiology, and involves the grand question of the manner in which the tooth is formed, as well as that of its arrangement and confirmation, it is, notwithstanding, less understood, has been less studied, and is, consequently, more obscure, than any other part of the subject." He also states that he devoted much time to the subject before he succeeded in obtaining any light to lead him to the discovery of its true bearings, and if the conclusions to which he has arrived are not strictly true, they are, at any rate, supported by much probability of reason. He continues, "On the surface of the pulp are found innumerable detached cells, with central points. Generally, these cells form a regular and complete coating, studded with points, which are placed at intervals, corresponding, in extent, to those between the fibres. These points are rendered visible from the greater opacity of the intermediate material, and will be seen to reflect or absorb the light," (when examined under the microscope) "according to the difference in the focal distance. A comparison between the superincumbent perfect ivory, and the formative surface of the pulp beneath, is always easy, because portions of the former, at an early stage at any rate, remain adherent to the latter, and fragments of the dental bone are found strewn over it, more especially in human teeth.

"The cellular conformation of these fragments is always evident, and in size and appearance they are perfectly accordant with the cells of the pulp," as is shown by diagrams furnished by Mr. Nasmyth.

"At an early stage of dental development, the reticulated or cellular appearance of the pulp is particularly beautiful. When merely a thin layer of ossific matter has been deposited on its surface, it may with great facility be drawn out entire, together with the

former, laid on a glass, compressed a little, and then examined with the high powers of the microscope. The different layers of cells will be seen, and the transition into ivory may be observed, where the different gradations of ossification are marked by the shade and color.

These appearances are all beautifully illustrated by Mr. Nasmyth in the diagrams, and the reticulation, or cells of the pulp, he adds, "constitute the fibres of the tooth, which, while in this state, are spirally coiled, and fit into one another. At all events, the diameter of these fibres of the reticulations is precisely that of the fibres of the ivory; the points or projections rising from the frame work, correspond to the centres of the cells, and may be traced to belong to their structure. The fibres composed of the granules of animal matter, and which I describe as the frame work of the reticulations, become, upon the deposition of ossific matter within the cellules of those reticulations, the fibres of the ivory. The only change which they appear to undergo during the process of transition, is, that they are then drawn out from the coiled up state in which they exist between the collapsed cells of reticulations into the more longitudinal, but still spiral, in which they are found in the ivory.* The fibres of the ivory are frequently very spirally curved, like those of the pulp, and as we should conclude they must be from the manner of their evolution."

The theory of Mr. Nasmyth, with regard to the manner of the formation of dental bone, differs from that of professor Owen, who maintains, that it is excreted or exuded from the pulp.

Dental Sac. The teeth, previously to their eruption, and after their udiments have acquired a certain size, are enclosed in membranous bags which are termed sacs. Each sac consists of two laminæ, an outer and an inner—the outer is described by Mr. Hunter as soft and spongy, and without vessels, while the inner is extremely vascular and firm. But more recent investigations show both to be vascular; the structure of the outer is spongy, the inner is of a firmer consistence, and of a fibro-mucous structure. See Teeth, origin and formation of.

Dental Sub'stitute. Any mechanical contrivance used for the replacement of one or more of the natural teeth. See Artificial Teeth.

Dental Sur'geon. *Chirurgien dentiste.* Surgeon dentist. One who devotes himself to the study and treatment of the diseases of the teeth, and their connections.

Dental Sur'gery. *Chirurgia dentium.* That branch of medicine which has reference to the treatment of the diseases of the teeth and their connections, and which at the same time embraces the prosthesis, or replacement of the loss, of these organs with artificial substitutes.

So remote is the origin of dental surgery, and imperfect the records of ancient medicine, that it cannot, at the present time, be traced with any degree of accuracy. We learn, however, from Herodotus, the Grecian historian, that when he went to Egypt, from his then comparatively barbarous home, to learn the sacred mysteries and the sciences in the world's earliest nursery of learning and civilization on the banks of the Nile, he found surgery and medicine divided into distinct profession. There were surgico-physicians for the eye, others for the ear, others for the teeth, and so on for the different classes of disease the appropriate professor was found. This division, by an unalterable law of the human mind, would have given great skill and efficiency to the various practitioners, had not each been confined, under a penalty of death, to fixed prescriptions; but to what extent

* In quoting from Mr. Nasmyth, the author omits the references to the diagrams which accompanies his memoir upon the subject.

the remedies and modes of practice at this early period of the world's history, were successful in the cure of disease, the chasms made in the annals of ancient art and science, by the destruction of the great Alexandrian library, must forever leave the world in ignorance.

During the time of HIPPOCRATES, who flourished about three hundred and sixty years before the Christian era, it is evident that little was known concerning the anatomy and physiology of the teeth, as is shown by the fact, that this celebrated physician, in treating of these organs, calls them, "A glutinous increment from the bones of the head and jaws, of which the fatty part is dried by heat and burnt." In the fetus he says, "they are nourished by the food of the mother, and after birth by the milk which the infant sucks from the breast." He also describes a method that existed for a long time previously to this period, of fastening teeth with gold wire, and he recommends several dentifrices for cleaning the teeth, which evidently comprises most that was known of the diseases and treatment of these organs at this epoch.

Although the writings of Aristotle show that the teeth were not altogether overlooked by him, they, at the same time afford abundant evidence that his knowledge of their anatomy and physiology was very meagre. Man, he asserts, has more teeth than woman, and that this difference is found to exist between the sexes of various animals, as in sheep, goats and pigs. In man, he states, that only the front teeth change, and that the age of animals may be ascertained by their teeth. Another of the errors propagated by this writer is, that the teeth continue to grow in length during life.

ARETÆUS, in treating of tooth-ache, seems utterly at a loss to account for its cause, and contents himself, by stating, that it was known only to God. But CELSUS, who flourished during the first century of the Christian era, describes at some length, the method of procedure for the extraction of teeth, and it is in his writings that the first mention is made of filling the cavities of carious teeth. He does not, however, recommend this operation for the purpose of arresting the progress of disease, but merely to strengthen the walls of a carious tooth, preparatory to extraction; an operation, he advises only as a dernier or last resort, and for the purpose of preventing the necessity of it, he recommends a variety of remedies for the cure of tooth-ache, as for example, the actual cautery, hot oil, caustic medicines, &c., with a view of destroying the vitality of the organ. But when extraction becomes indispensably necessary, he says, if the tooth cannot be taken out with the hand, forceps must be used, and for the removal of a root, after the crown has broken off, under the forceps, he recommends the employment of an instrument, termed by the Greeks, *rizagra*. It would also seem that the alveolar processes were frequently fractured in the operation, and when an accident of this sort happened, he directed that the broken bone should be removed with a vulsella. He also notices some of the diseases of the gums, the loosening of the teeth, the eruption of the permanent teeth behind the temporary, and some of the methods of treatment laid down by him, are practiced even at the present day.

But the best writings of ancient times on the teeth, now extant, are those of GALEN, who wrote in the second century after Christ, after having enjoyed the medical advantages offered by that eldest and most splendid of libraries which was so soon afterwards doomed to the flames by the hand of barbarian power. This writer describes the teeth as being formed during intra-uterine life, though they remain concealed in the alveoli until after birth. He also gives a very minute description of the forms, functions and evolutions of these organs.

The art of dentistry was cultivated by Greece and Rome, during their most palmy days of splendor and prosperity, chiefly in aid of the charms of beauty, and hence, so far as the paucity of medical works which have been handed down from these nations, enables us to determine, was principally confined to the replacement of the loss of the natural organs with artificial substitutes. Dentistry, in fact, does not seem to have made much progress for many centuries; for, when vandalism shut down upon the world, and learning itself was hidden in the gloom of the dark ages, then every torchlight of science feebly glimmering over the waste of ignorance and superstition, and every star that shown in the moral and scientific horizon, were quenched in that chill night of ages which threw its deadly penumbra over the world.

During this pause in the vitality of learning. Dentistry fared no worse than any other science. Demonology and the curative art were antagonistic, and the cabalistic mummery of gloomy and monastic ascetics was called in, to eradicate pain and disease, by the aid of charms and incantations.

From the time of Galen, until the sixteenth century, few traces of the art of dentistry, are to be found among the records of medicine. In connection with the anatomy of the teeth, Aetius mentions the fact that they have an opening in their roots for the admission of small nerves, which he regards as the reason, that these organs are the only bones which are liable to become painful, and Rhazes has described, though very imperfectly, the process of dentition, but with regard to the replacement of the loss of the natural teeth, Albucasis is said to have been the first to teach that it might be done, either with other human teeth, or with substitutes made from bone.

Vesalius, who has been styled the restorer of human anatomy, and author of "De Corporis Humani Fabrica," published at Basil, in 1543, describes the temporary teeth as constituting the germs of the permanent teeth—an error into which some other of the older writers have fallen. Eustachius, however, may be regarded as the first to have given any thing like a correct description of the number, growth and different forms and varieties of the teeth. He describes their condition and arrangement in the jaws previous to their eruption, and refutes the erroneous opinion that the roots of the temporary serve as germs for the permanent teeth. Urbain Hemard, also a writer of the sixteenth century, gave a very good description of the teeth of both dentitions, both before and after their eruption. He also points out the differences between them and other bones, and describes their diseases. About the time Hemard's Researches upon the teeth made their appearance in France, a memoir upon the teeth was published in Germany, another in Spain, and another in Switzerland. The first was written by G. H. Ryff, and pubished in 1587; but this is not a work of much merit; the second was written by F. M. Castrillo, and published at Madrid in 1557, and the other by E. Erastrus, was published at Bâle, in 1595.

But it was not until near three hundred years ago, about the time of the revival of letters, that Ambrose Pare, in his celebrated work on Surgery, gave evidence of the vitality of dentistry amidst the awakening chaos of ancient science and erudition, that the treatment of the diseases of the teeth began to attract much attention. His remarks upon this subject were only a promise of what the present age is fulfilling in this department of physical alleviation, for they are intermixed with numerous absurdities and improbabilities, which half awakened science had not yet shaken off, as she was slowly arousing herself for her final, her noblest triumphs.

Paré maintains that the teeth, "like other bones, suppurated, and were sub-

ject to inflammation; the breeding of worms," &c. In treating of the extraction of teeth, he says: "For the better plucking out of the tooth, the patient should be placed in a low seat, bending back his head between the tooth-drawer's legs; then the tooth-drawer should deeply scarify about the tooth, separating the gums therefrom, and then, if spoiled, as it were, of the wall of the gums, it grow loose, it must be shaken and thrust out by forcing it with a three-pointed lever, but if it stick in too fast, and will not stir at all, then the tooth must be taken hold of with some of the toothed forceps, now one, then another, as the greatness, figure, and sight shall seem to require," &c. Unless the operator is skilful, he says, he may remove three, and, sometimes, leave untouched the one which caused the pain.

On the replacement of the loss of these organs, he observes, "Teeth artificially made of bone or ivory may be put in the place of those that are wanting; and they must be joined one fast unto another, and, also, fastened unto the natural teeth adjoining that are whole; and this must chiefly be done with a thread of gold or silver, or, for want of either, with a common thread of silk or flax, as it is declared at large by Hippocrates."

Scaliger denies that the teeth have any sensation, and believes them to be, in this respect, analogous to the nails; while Kerkring says they are similar to other bones. Concerning the structure of the teeth, Malpighi asserts that they consist of two parts; the interior, which is a bony lamella, consisting of a fibrous network; but among the writers of the seventeenth century, Leeuwenhoek, upon this subject, is, by far, the most explicit and satisfactory, and many of his microscopical observations have been shown by the researches of later writers to be very nearly correct. He distinctly promulgates the doctrine of the tubular structure of the bony part of these organs.

But it is to Pierre Fauchard, that we are indebted for the first systematic Treatise on Dental Surgery, which was published in France in 1728. This work, making two 12mo volumes, and, altogether, about nine hundred closely printed pages, gives a minute description of all that was known, at that period, of the anatomy, physiology and pathology of the teeth and their connections, as well as the various practical details connected with the treatment of the diseases of the mouth and the application of artificial teeth, palatine obturators, &c. But dental operations, even at this time, were performed in a very rude and bungling manner.

But, although a number of works were contributed to the literature of dental surgery, and among which we should not omit to mention those of Bunon, Lecluse, Jourdain, Bourdet, Herissant and Berdmore, but with the exception of the original suggestions of these authors, few improvements were made in practice until towards the close of the eighteenth century. Paré wrote in 1579, and in 1771, John Hunter, wrote the first, and in 1778, the second part of his Treatise on the Teeth, on which the broad and firm foundation of the English school of dentistry was laid. This has, subsequently, been improved and beautified by Blake, Fox, Koecker, Bell, Nasmyth and other distinguished men of the dental profession.

What that eminent anatomist and surgeon, John Hunter, was to the English school of dental surgery, Bichat was to the French modern school, as he, with others equally philosophic, taught that no theory should be received, however plausible, which could not be proven by demonstration. Neither Hunter nor Bichat were practical dentists, but the mighty energy of their minds embraced the dental with the other branches of surgery; and the principles of physiology and pathology at large included this important branch, and re-

vealed the connection and sympathies of the teeth with the entire frame work of man. Blandin, Bichat's editor, although not a practical dentist, was much better acquainted with the science of the teeth than Bichat himself; and Cuvier's extensive researches into osteology, as well as the arcana of nature at large, all, all came in to aid the French dental surgeons: Serres, Delabarre, F. Cuvier, Rousseau, Maury, Lefoulon, and Desirabode, have illustrated the modern improvements of the art and science, building, as they have, on the foundation laid years before, by Fauchard, Bunon, Bourdet, Lecluse, Jourdain, Herrisant, Baume, Laforgue, and others.

It would, doubtless, be interesting to the dental student, if we were to trace more in detail, the progress of this branch of surgery through the eighteenth century, but the limits to which we have restricted this article will not permit us to do so. Although it advanced steadily during almost the whole of this period, its progress has been, by far, more rapid since the commencement of the present century. Profiting by the experience of the past, as well as by the spirit of enterprise and improvement now rapidly diffusing itself abroad over the whole civilized world, nerving the energies of mind for new and greater achievements in every department of science and art, and animated by a spirit of noble emulation, many practitioners of dental surgery have devoted themselves to its cultivation with an enthusiasm and zeal which have enabled them to overcome every difficulty and to arrive, almost, at the highest summit of professional excellence.

The publication in France, in 1802, of a work by Laforgue, on the Theory and Practice of the Art of the Dentist, was followed, in 1805, by a work, written by Gariot, on the Diseases of the Mouth, published, 1806, and by an elaborate Treatise, written by Prof. Baume, on First Dentition, and the Diseases that accompany it. In the same year a work, written by Leroy, (*de la Faudiguere,*) on the Diseases of the Gums, was published, and a Treatise, entitled, Manual of the Art of the Dentist, written by Jourdain and Maggiolo, was issued from the press in 1807. But besides the above named work by Laforgue, the author of it has written a number of articles on the Diseases of the Teeth, which were published in 1808, and a Dissertation on First Dentition, published in 1809. About the same time, a well written work, from the pen of Duval was published, who is, also, the author of several other works, one on Second Dentition, published in 1820, and another on Mechanical Dentistry, published in 1828, besides several small Essays.

The next work which we propose to notice is from the pen of C. F. Delabarre, and is entitled Odontology, which was published in 1815.—In 1819, a work from the same author, was issued from the press, and in 1820, a Treatise on Mechanical Dentistry.—From the pen of this able writer, we are also indebted for a Treatise on Second Dentition, intended as a supplement to his former work upon the same subject.

A Manual on the Anatomy and Physiology of the Teeth, and a Treatise on Dental Physiology, Pathology, and Therapeutics, both written by Lemair, were published, the first, 1816, and the last in 1822. In 1819, a Treatise on the Anatomy and Physiology of the Teeth, and Dentition, written by Serres, was also issued from the press.

It may also be well to mention in this place, that during the first fifteen or twenty years of the present century, a number of pamphlets and essays on the manufacture of mineral artificial teeth, were published in France, and in 1821, quite an elaborate treatise upon the same subject, written by Audibran, made its appearance. The credit of the invention of these teeth is ascribed by some to Duchateau, an apothecary of

St. Germain, but the claim of a dentist by the name of N. De Chemant to it, was so fully established that royal letters patent were granted him both in France and England. Although these teeth were manufactured in France as early as the year 1788, they were not brought to a sufficient degree of perfection, to completely supersede the use of animal substances for artificial teeth, until about the year 1833, when the improvements made in the United States obviated most of the objections that had previously existed to their employment. At present, they are decidedly preferred by dentists to every other description of artificial teeth. The introduction of the use of mineral artificial teeth was the commencement of a new era in dental prosthesis, for, although it was a long time before they were brought to sufficient perfection to render them desirable substitutes for the natural organs, yet it gave an impetus to improvement in this department which has been attended with the most happy and salutary results.

Although interesting only in a physiological point of view, the work of F. Cuvier, which treats on the Teeth of Mammiferous Animals, and their Zoological Characters, should not be passed without notice. It was published in 1825, and contains one hundred plates. It is one of the richest contributions to the science of odontology, which had, at the period of its publication, appeared.

Miel, in 1826, gave to the dental profession a well written and valuable work on the Art of Directing Second Dentition. In 1828, a splendid work, illustrated by thirty beautiful plates, on the Comparative Anatomy of the Teeth of Man and other Animals, by Rousseau, was issued from the press, and eight years previous to this time, a small treatise, by the same author, on First and Second Dentition, was published. But the best work on practical dentistry, which had appeared in France, at the period of its publication in 1833, is from the pen of F. Maury. In 1836, a valuable treatise, by professor Blandin, on Dental Anatomy, was published. This work deserves to be ranked among the first upon the subject on which it treats.

In 1841, a work, by Lefoulon, on the Theory and Practice of Dental Surgery, made its appearance. A Treatise on Irregularity of the Teeth by Schange, was published in 1842. But the best elementary work on the Science and Art of Dental Surgery, which has appeared in France, is from the pens of Desirabode & Sons. It occupies upwards of eight hundred pages, and has passed through two editions. The last was published in Paris in 1845. It treats on almost every subject coming within the province of the dental surgeon.

To the foregoing works, many more might be added, but those which we have already noticed will suffice to show the progress which the science and art of dental surgery has made in France since the commencement of the present century. The French have written much upon the subject, and have contributed largely to its advancement. They were its earliest, and, for a long time, its most zealous cultivators. For the assiduity with which they have studied its principles, the ingenuity and talent they have brought to its aid, and the energy and zeal with which they have applied themselves to the development of its resources, they are entitled to the highest praise.

Leaving the French school, we shall proceed to examine very briefly the progress which dental surgery has made in Great Britain, during the same period. The publication of Dr. Robert Blake's Inaugural Dissertation on the Structure of the Teeth in Man and various Animals at Edinburg, in 1798, was followed in 1803 by the first part of Fox's celebrated Treatise on the Natural History and Diseases of the Human Teeth,

and in 1806, by the second part. Both of the above works hold a deservedly high place in the literature of this department of medicine; they have been quoted by almost every subsequent writer, but the latter, as having more of a practical character, has been more extensively read than the former, and that portion of it which treats on the anatomy and physiology of the teeth, ranks, even now, among the best works extant upon the subject. But the doctrine that all of the diseases of the teeth are analogous to those of other bones, as more distinctly promulgated to the dental profession than had been done by any previous author, although even now maintained by several very able European writers, has subsequently been very conclusively shown to be erroneous. The publication of this work, however, at once gave to the subject, as a branch of the healing art, an importance, which it had never before had, and awakened a spirit of inquiry which soon led to the adoption of a more correct system of practice than had hitherto been pursued.

Four years after the publication of the second part of Mr. Fox's work, a small Treatise on the Structure, Formation, and Management of the Teeth, by Fuller, was issued from the press. The year following, a work written by Murphy, on the Natural History of the Human Teeth, with a treatise on their diseases, from infancy to old age, was published. But as both of the last mentioned works were chiefly designed for the popular reader, they did not, either in a scientific or practical point of view, contribute much to the advancement of dental surgery. Two other works of a somewhat similar character were published, one in 1819, and the other in 1823. The first was written by Mr. Bew, and the last by Gerbaux.

But the best treatise on dental pathology and therapeutics which had come from the English press at the period of its publication in 1826, is from the pen of Leonard Koecker, M. D., and is entitled, Principles of Dental Surgery, and the dental profession are indebted to the same author for two other works, one on the diseases of the jaws, published in 1828, and the other on Artificial Teeth, published in 1835.

In 1827, Mr. Fay published a description of a mode of using forceps, invented by himself, for the extraction and excision of teeth. It is hardly necessary to say that the advantages proposed to be gained by the last named operation have not been realized. In 1831, a small treatise written by J. P. Clark, was published. But one of the most popular works that has yet appeared in England, is from the pen of Mr. Thomas Bell, an able and highly accomplished writer. This work was published in 1830, and in 1831, it was followed by a work on Operative Dental Surgery, written by Mr. Snell, but previously to this period, a small work, entitled the Surgeon Dentist's Manual, by G. Waite, had made its appearance, as well as several other small treatises. Mr. Waite is also the author of a well written treatise on the structure and diseases of the gums. In 1835, Mr. Jobson gave to the profession a treatise on the Anatomy and Physiology of the Teeth, and four years after the publication of this work, a treatise, written by Mr. Robertson, made its appearance, in which the Chemical Theory of Dental Caries, is ably advocated.

In 1839, an Historical Introduction, to Researches on the Development, Structure, and Diseases of the Teeth, by A. Nasmyth, was issued from the press, embodying the views, as well as the result of the researches of almost every writer of note, upon the subject. Mr. Nasmyth is also the author of three Memoirs on the Development and Structure of the Teeth and Epithelium, which were published in 1841. These contain the result of a series of highly interesting microscopical observations made by the author upon these subjects, and constitute a rich contribution to the

science of odontology. It is proper to mention in this connection, that a highly interesting and ably written paper on the Development of the Pulps and Sacs of the Human Teeth, written by Mr. Goodsir, was published in the January No. for 1839, of the Edinburg Medical and Surgical Journal.

In 1841, a small Treatise on the Structure, Economy and Pathology, of the Teeth, written by Mr. Lintot, made its appearance, and soon after, a small work on the Extraction of Teeth, by Mr. Clendon. In 1845, the publication, which had been commenced in 1840, of an elaborate and very ably written Treatise on the Comparative Anatomy of the Teeth of vertebrate animals, by professor Owen, was completed. In this work, which is entitled Odontography, the physiological relations, mode of development, and microscopical structure of the teeth, are minutely described. It is also illustrated by upwards of one hundred and sixty splendid lithographic plates, which, with the text, forms two large imperial octavo volumes.

Several valuable contributions to the literature of this branch of medicine have been made by Dr. E. Saunders, and among them are a series of Lectures on the Anatomy, Physiology and Diseases of the Teeth, delivered at St. Thomas' Hospital, and published in the London Forceps; and a pamphlet of about eighty pages, entitled, the Teeth, a Test of Age. In 1846 and '7, a course of Lectures upon Dental Anatomy, Physiology, Pathology and Therapeutics, delivered by Mr. Tomes at the Middlesex Hospital, were published in the London Medical Gazette. But one of the best practical manuals upon dental surgery which has come from the English press is from the pen of Dr. James Robinson. It was published in 1846.

Many other works might be added to the list of publications on the teeth, which have been published in Great Britain since the commencement of the present century, but as most of them were intended for the general, rather than the professional, reader, we have not thought it necessary to extend the length of this article by mentioning them. With the increase of the literature of the Science and Art of Dental Surgery in Great Britain the improvements in practice have fully kept pace. The ranks of the profession for twenty-five or thirty years, have been rapidly filling with men no less distinguished for scientific attainments than for practical skill.

In Germany, dental surgery, though its progress has been less rapid there than in France and Great Britain, has attracted considerable attention. Few works, however, of much merit have emanated from that country since the commencement of the present century. There are two, however, published at Berlin, particularly worthy of notice—one in 1803, and the other in 1842. The first of these works, written by Serre, treats of dental operations and instruments, and forms on octavo volume of nearly six hundred pages, illustrated with upwards of thirty plates. The last is by C. J. and J. Linderer, and treats of Dental Anatomy, Physiology, Materia Medica and Surgery, forming an octavo volume of about five hundred pages, illustrated with several plates. Both of the last mentioned treatises, are very creditable productions. But, notwithstanding the merit possessed by a few of the German works upon the teeth, practical dentistry has not attained as high a degree of perfection generally in the German states and provinces, as it has in some other countries.

The researches of Professor Retzius, of Sweden, have excited much attention in Europe, and though they do not go to confirm previous opinions with regard to the minute structure of the teeth, they have nevertheless thrown much valuable light upon the subject. These researches are both curious

and interesting, and consist of microscopic examinations of the teeth of man and other animals, conducted upon an extensive scale, and would seem to prove the structure of these organs to be tubular. The account given of these researches by the author, has been translated into English, and are embodied in Nasmyth's Historical Introduction, which has already been noticed.

Having now glanced very briefly at the progress of the science and art of dental surgery, in most of the principal countries of Europe, we shall proceed to notice their introduction and growth in the United States.

It has been generally supposed, that it was during our revolutionary struggle for independence, that the first knowledge of dental surgery was introduced into this country, and that the first dentist in the United States, was a man by the name of Le Mair, who accompanied the French army which came over to our aid during that period. But this is not the fact. Mr. R. Wooffendale came over from England to New York, in 1766, and remained in this country some months, practicing in New York and Philadelphia, but not meeting with much encouragement, he returned to England in 1768. But, soon after the arrival of Le Mair, a dentist by the name of Whitlock came over from England. It was, therefore, from Wooffendale, Le Mair and Whitlock, that dental surgery may be said to have had its origin in the United States. But as yet, so far as the author has been able to ascertain, no regular treatise upon the subject had found its way to this country. With regard to the professional abilities of Le Mair and Whitlock, little is known, but it is probable they were limited, and that their practice consisted chiefly in constructing artificial teeth from blocks of ivory.

It is believed, however, that Mr. Jas. Gardette, a surgeon from the French navy, was the first medically educated dentist in the United States. He came to New York in 1783, and the following year went to Philadelphia, where he soon secured a high reputation by his professional skill and gentlemanly deportment, which he retained during an eminently successful career of upwards of forty years.

Mr. John Greenwood, however, it is believed, was the first regular native American dentist. He commenced practice in New York, about the year 1778, and is said to have been the only dentist in that city in the year 1790. Possessed of great energy of character and ingenuity of mind, he rapidly acquired reputation in the profession. But Mr. Greenwood did not remain long alone in the profession in New York. About the year 1796, Mr. Wooffendale, of London, came to the United States and commenced practice in this city. About the year 1805, Dr. Hudson, of Dublin, commenced the practice of dental surgery in Philadelphia, where he soon acquired skill and reputation which he enjoyed for upwards of twenty years, when death put a stop to his professional career. But about five years previously to the last mentioned period, Dr. H. H. Hayden commenced practice in Baltimore, and being possessed of an inquiring mind, he soon availed himself of the advantages of most of the best European works upon the physiology and pathology of the teeth, which had been written. In 1807, Dr. Koecker commenced practice in the same city, but in a short time, moved to Philadelphia, where he remained until 1822, when he went to London, where he has since continued to exercise the duties of his profession. But before he left the United States, he had acquired a justly deserved high reputation for skill in the treatment of the diseases of the mouth. In the mean time, many others had entered the profession, but instead of contributing to the advancement of correct practice, they rather had a tendency to retard its progress, and bring odium upon the calling, as they were for the

most part ignorant of those branches of knowledge, which it is so important for a dental surgeon to possess. But the number of dental practitioners in the United States, at the last mentioned period, was by no means great, and even as late as 1820, the number in this country, did not greatly exceed one hundred. From this time, however, they began to increase more rapidly, and although few of those who assumed the calling, did so with the necessary preparatory education, the zeal and ability with which this branch of medicine was cultivated by a few, hastened it on towards perfection with astonishing and unexampled rapidity. Practical dentistry, in all its branches began to assume a perfection to which it had never before, in any country, attained.

In 1830, the number of dentists in the United States, according to the best information upon the subject, was about three hundred, but of these, it is true, perhaps, that not more than forty or fifty had attained much practical excellence. The portals to the profession then, as now, were open to the ignorant, as well as to the educated, and in consequence of this, its numbers multiplied rapidly. In the course of five years from the time last mentioned the number of dentists in the United States had more than doubled.

But an event was now approaching in the history of dental surgery in the United States, which gave to its progress a new and unexpected impetus. The publication of the American Journal and Library of Dental Science was commenced in 1839. This was the rising of the morning star of improvement which was soon followed with more palpable evidences of the approach of day-light to the scattered members of the profession, who had hitherto toiled in comparative obscurity, almost unknown to each other and to the world. This publication aroused the energies of many, who had learned the science in years of toil, but who had not before found any appropriate medium through which to communicate their knowledge to the profession.

The formation of the American Society of Dental Surgeons, soon followed the establishment of this periodical, and at its second annual meeting, an arrangement was made with its publishers, by which it became both the property and the organ of the association. Since then, the agency of the Journal in recording the transactions of the society, in presenting the papers and the addresses read before it at its annual meetings, the discoveries and improvements in the art, as well as in the diffusion of the knowledge of foreign acquirements in this branch of surgery—has marked it as the chief ally of the society in the elevation of the profession, and in giving vigor to its associated efforts for the advancement of the science. The fact that it has become a medium of intercommunication between its members, and the repository of valuable information, should commend it to the members of the dental profession generally.

But a few months previous to the institution of the American Society of Dental Surgeons, the legislature of Maryland chartered a college with four professorships, for the purpose of affording more ample facilities of instruction in the branches of knowledge necessary to the education of an accomplished dentist, than could be furnished by any private teacher, and thus securing to the public a sure guaranty against the impositions of empiricism. The object of this institution is, to give those who receive its instructions, a thorough medico-dental education, so that when they enter upon the active duties of the profession, they may be enabled to practice it, not alone as a mere mechanical art, but upon sound scientific principles, as a regular branch of medicine. While the head is being educated in such branches of general medicine and surgery, as is deemed necessary to

a successful practitioner in this department, and in the principles proper of dentistry, the fingers of the student, are, at the same time, regularly drilled every day in the various mechanical manipulations belonging to it, so that those who graduate in the Baltimore College of Dental Surgery, go out with advantages that can seldom be obtained from private instruction. This fact, it is believed, will ever connect the destinies of the institution with the welfare of the profession in this country. A similar institution has recently been established at Cincinnati, Ohio.

Since the Baltimore College of Dental Surgery, and the American Society of Dental Surgeons, went into operation, four local associations of dentists have been formed, one in the Mississippi valley, one in Virginia, the third in Pennsylvania, and the fourth in New York.

In 1842, there were about fourteen hundred dentists in the United States, and now (1848) there are upwards of two thousand. But it is a source of regret that many are without any of the qualifications necessary for the exercise of the duties of so nice and difficult an art. But, notwithstanding all the discouraging circumstances which have and do still attend the progress of dental surgery in the United States, its growth has been astonishingly rapid. Fifteen years ago, an accomplished dentist might have been pardoned the thought that his art had arrived at perfection; but great improvements have been made in this department of surgery within that time, and who shall say that the succeeding fifteen years shall not be as pregnant with improvements as the past.

Although the United States may not have contributed as much to the literature of this branch of medicine as Europe, dental surgery has, nevertheless, progressed with as much rapidity here as there, and the works of American authors upon this subject, would suffer little, if at all, by comparison with similar publications of other countries. But few elementary treatises on the subject have ever been published any where, and of those purporting to be such, which have appeared during the last fifteen or twenty years, American dentists have contributed their full share.

Among the works on the teeth which have emanated from the press of this country, it may be well to mention the following: in 1819, a work entitled, a Practical Guide to the Management of the Teeth, by L. S. Parmly, was published in New York, and another work from the pen of the same author, on the Natural History and Management of the Teeth, made its appearance in 1821.

In 1822, a small work on the Disorders and Treatment of the Teeth, written by Dr. Eleazar Parmly, was published in New York and London. A small Treatise on the Structure, Formation, Diseases and Treatment of the Human Teeth, by Dr. J. F. Flagg, was published in Boston in 1822. In 1828, an Essay on the Structure or Organization and Nourishment of the Human Teeth, from the pen of Dr. J. Trenor, was published, and in 1829, a Treatise of upwards of five hundred pages, entitled, a System of Dental Surgery, in three parts, written by Dr. S. S. Fitch, was issued from the press. The first part, treats of Dental Surgery as a Science; the second, on Operative Dental Surgery, and the third, on Pharmacy, connected with Dental Surgery. This is the largest and most comprehensive work which had, at the time of its publication, appeared. In 1835, a second, and improved, edition was issued from the press.

In 1833, a poem by Dr. S. Brown, with notes by Dr. E. Parmly, entitled, Dentologia, was published. Dr. Brown is also the author of a poem, entitled, Dental Hygiea, published in 1838, and of a series of articles on Mechanical Dentistry, published in the American Journal of Dental Science. A year after the publication of the second edi-

tion of Dr. Fitch's System of Dental Surgery, a popular Treatise, entitled, Guide to Sound Teeth, by Dr. S. Spooner, made its appearance. In 1839, a practical Treatise on Dental Surgery, of nearly four hundred octavo pages, by the author, was issued from the press, which has subsequently, been enlarged to seven hundred and fifty-two pages, and passed through two other editions, under the title of Principles and Practice of Dental Surgery. The last edition was published in January, 1848. In 1843, a treatise on the Anatomy, Physiology, and Diseases of the Teeth and Gums, &c. by Dr. Paul Beck Goddard, was issued from the press, and two years after, a popular treatise on the Teeth, by Dr. Robert Arthur.

The author would not omit to mention in this connection, that since the commencement of the publication of the American Journal and Library of Dental Science, four other periodicals devoted to the interests of dental surgery have been established, namely: The Dental Intelligencer; the New York Dental Recorder; the Dental News Letter and the Dental Register of the West. In all of which some excellent articles upon the teeth have appeared.

In thus briefly glancing at the rise and progress of dental surgery, the author has necessarily been compelled to avoid entering into details of particular modes of practice, and of improvements and inventions, which have, from time to time, been made, as well as of an analysis of the works which have been mentioned, for, if he had done so, it would have swelled the present article to a size wholly incompatible with the design of a work like the present.

DENTA'LIS LAPIS. Salivary calculus; tartar of the teeth.

DENTA'LIUM. From *dens*, a tooth. The dog-like tooth shell. A genus of shells resembling in shape a tooth.

DENTA'RIA. Plumbago europœa. Toothwort.

DENTAR'PAGA. From *dens*, a tooth, and αρπαζω; I fasten upon. An instrument for the extraction of teeth. Anciently, this operation was performed with rude and clumsily constructed forceps, and, hence, the operation was regarded as formidable, and difficult to perform. See Extraction of Teeth.

DENTA'TA. From *dens*, a tooth. The second vertebra of the neck is so called from its having a tooth like process at the upper part of its body.

DEN'TATE. *Dentatus;* from *dens*, a tooth, having points like teeth; applied to roots, leaves, &c.

DENTES. The plural of dens. Teeth. See Teeth.

Dentes Cuspidati. Κυνοδοντες. Cuspid teeth.

Dentes Bicuspidati. Bicuspid teeth.

Dentes Incisores. Incisor teeth.

Dentes Lactei. The milk, temporary, or deciduous teeth. See Deciduous Teeth.

Dentes Molares. Molar teeth.

Dentes Sapientiæ. The wisdom, or third molar teeth.

DENTIC'ULATE. *Denticulatus.*—Set with small teeth.

DENTICEPS. See Dentagra.

DENTIER. A set of artificial teeth either for one or both jaws.

DEN'TIFORM. *Dentiformis;* from *dens*, a tooth, and *forma*, form. Having the shape or form of a tooth.

DEN'TIFRICE. *Dentifricum;* from *dens*, a tooth, and *fricare*, to rub. A powder or paste for cleaning the teeth. Although the teeth can, in most cases, be kept clean by the use of a suitable brush and waxed floss silk, a powder or paste may sometimes be advantageously employed, for the removal of discolorations, stains, or clammy mucus from them. Neglect, or constitutional causes, sometimes renders the use of other means than a brush, tooth-pick, or floss silk, very necessary. And a variety of dentifrices have, at different times, and by different practitioners, been proposed. Some are innocent and may be used with advantage, others ex-

ert upon the teeth a deleterious effect. Charcoal is an ingredient which, at one time, entered largely into the composition of many of the dentifrices. From its known antiseptic properties, it was regarded as a preventive of caries. Its use, however, has latterly been almost altogether abandoned. It was found that it not only did not exert upon the teeth the effect formerly ascribed to it, but that its use was absolutely productive of injury, inasmuch as it was forced between the gums and necks of the teeth, and in the interdental spaces, and not being soluble in the fluids of the mouth, caused the margins and apices of the gums to assume a blackish appearance. By acting as a mechanical irritant it also caused them to inflame. All acids should also be excluded from dentifrices, as none of this class of agents can be used with impunity upon the teeth. Cream of tartar enters largely into the composition of most of the dentifrices vended in the shops for whitening and beautifying the teeth, and strange as it may seem, it alone was recommended by Mr. Hunter as a tooth powder. The affinity of tartaric acid, one of its principal constituents, for the lime of the teeth, being greater than the phosphoric with which it is combined, acts readily upon the enamel, and when used for any considerable length of time, not only destroys it, but renders the teeth sensitive and painful to the slightest touch.

It has been conclusively demonstrated by Dr. Westcott, that all acids act upon the teeth, and no chemical or mechanical agent capable of exerting a deleterious action upon these organs, should enter into the composition of a dentifrice. The following are the formulæ of a few of the many dentifrices at present employed, others will be found in different parts of the work.

℞.—Cortex cinchona,	℥ iv.
Creta prep.,	℥ iss.
Armenian bole,	℥ iss.
Oleum bergamii,	gtt. xxv.

Mix and reduce to an impalpable powder.

℞.—Creta prep.	℥ iv.
Pul. orris root,	℥ iss.
Cortex cinchona,	℥ iij.
Saccharum album,	℥ ss.
Carb. sodæ,	ʒ i.
Oleum cinnamoni,	gtt. xv.

Mix and reduce to an impalpable powder.

The following, however, will be found as useful and agreeable as any powder that can be employed for the purpose of simply removing adhesions of clammy mucus or discolorations from the teeth.

℞.—Pul. orris root,	℔ ii.
" cinnamon,	℥ iv.
Creta prep.	℔ i.
Sup. carb. soda,	ʒ iss.
Sac. album,	℥ vii.
Oleum rosæ,	gtt. xii.

Mix and reduce to an impalpable powder.

Astringent and Aromatic Dentifrice.

℞.—Pul. gallæ,	℥ iss.
" orris root,	℥ ij.
Creta prep.	℥ ij.
Cortex cinchona,	℥ i.

Mix and reduce to an impalpable powder.

Baume's Dentifrice.

℞.—Prepared pumice-stone,	℥ i.
" red earth,	℥ i.
" " coral,	℥ i.
Dragon's blood,	℥ ss.
Cream of tartar,	℥ ss.
Cinnamon,	℥ ii.
Cloves,	gr. xxv.

Mix and pulverise.

By leaving out the pumice-stone and cream of tartar, the last formula would not be very objectionable.

Other formulæ might be given, but the foregoing will suffice.

Paste for Cleaning the Teeth.

℞.—Pul. orris root,	℥ v.
" cinnamon,	℥ ss.
Creta prep.	℥ iv.
Cortex cinchona,	℥ iij.

Mix, pulverise to a fine powder, and add a sufficient quantity of honey to form a stiff paste.

Dentifrice Electuary, Lelande's. ℞.—Pumice-stone, dried bone, red coral, ā ā ʒ ij; Florentine orris, calcined alum, pulverised cinnamon, ā ā ℈ ij; rock alum, ʒ i; cochineal, ʒ i; pulverise finely, and add a sufficient quantity of Narbonne honey made into a syrup to form an electuary. After fermenting forty-eight hours, stir it, and put in alcohol of cloves, 24 drops, and 10 drops of alcohol of musk. Triturate the mixture again, and put it in tin boxes, or fine earthen pots for use.

Dentifrice Powder, Alibert's.—℞.—Magnesia, ʒ vi; shell-lac, ʒ ij; Florentine orris, ʒ v; sup. tart. potassa, ʒ ij. Mix.

Dentifrice, Mailhe's. ℞.—Sugar of milk, 1000 grammes; lake, 10 grammes; pure tannin, 15 grammes; oil of mint and oil of anise, each 20 drops; oil of orange flower, 10 drops. Rub the lake with the tanin, and add, gradually, first, the sugar of milk, previously powdered and passed through a sieve having wide meshes, and then the essential oils.

DENTINE. A name given by professor Owen to dental bone, or the osseous part of a tooth. See Tooth-bone.

DENTISCAL'PIUM. From *dens*, a tooth, and *scalpere*, to scrape. An instrument employed for the removal of salivary calculus, and scraping the teeth. A number of instruments are often required for these purposes, so shaped that they may be readily applied to any part of a tooth. The name has also been applied to a gum-lancet and tooth-pick, but we think it applies more strictly to the first mentioned instrument.

DENTIST. See Dental Surgeon.

DENTITION. *Dentitio;* from *dentire*, to breed teeth. Teething. The emergence of the teeth from the alveoli and gums.

With regard to the manner in which this operation of the economy is effected, a variety of explanations have been given. Some, and we believe by far the greater number, attribute it to the prolongation of the pulp for the formation of the root of the tooth, or in other words, that a tooth is pushed from its socket and through the gum, by the formation of its root or roots, if it have more than one. But, that this opinion is erroneous would seem evident from the fact, that, if the elongation of the pulp commenced before the crown of the tooth had made any advance towards the gum, it would come in contact with the floor of the alveolus, and being in a soft and yielding condition, be caused to assume an unnatural configuration. It is apparent, therefore, that the crown must make some progress toward the gum, before an elongation of its pulp can commence, and this then must be effected by some other agency; others believe that the tooth is forced from its socket by the moulding of the alveolus to its root or roots, if it have more than one, but the objections which apply to the other theory, will apply with equal force to this.

M. Delabarre believes the exit of a tooth from its matrix and its passage through the alveolus and gums are effected in precisely the same manner as the birth of a child. The sac, he regards as the chief agent, and that it is by the contraction of this, which is adherent to the neck of the tooth, that the organ is lifted from its socket, and its neck ultimately brought to a level with the gums. This is the only philosophical and truly plausible explanation that has ever been given of this most curious and interesting operation of the animal economy, and when we take into consideration that the inner membrane of the sac is of a fibro-mucous structure, it is easy to perceive, how the advance of a tooth may be effected by the contraction of this enclosure, which is firmly attached to its neck, and also to the

gum. It is by the contraction of this, that the dentition of a tooth is effected.

The ossification of the exterior of the root, proceeds nearly as fast as the elongation of the pulp. Commencing at the neck, and proceeding inwards and downwards, one concentric bony ring after another is formed until it reaches the extremity, and nothing remains but a small canal running through the centre from its apex to the cavity in the interior of the crown, through which the dental nerves and vessels pass. The alveolus in the mean time deepens, approaches the tooth and finally closely embraces it. As soon as the coronal extremity of the tooth emerges from the gum, the sac assumes its primitive follicular condition. But it continues to contract until the whole of the crown has passed through, when it becomes the free edge of the gum which surrounds the neck of the tooth.

Goodsir divides dentition into three stages, to wit: the *follicular*, the *sacular*, and the *eruptive*. See Teeth, development of pulps and sacs of.

Dentition, First. The dentition of the deciduous, milk, or temporary teeth. As the progress of the teeth through the various stages of dentition will be described in the article on "Teeth, Development of Pulps and Sacs of," it will only be necessary, in this place, to notice the periods of the eruption of the temporary teeth, which are variable; depending, probably, upon the state of the constitutional health of the child. The following, however, may be regarded as a very near approximation to the periods when they are most frequently erupted.

The central incisores from 5 to 8 months after birth; the lateral incisores from 7 to 10; the first molares from 12 to 16; the cuspidati from 14 to 20; and the second molares from 20 to 36 months.

No general rule, however, can be laid down from which there will not be frequent variations. The following is the most remarkable variation, not only from the most common period, but also from the natural order in which the eruption of the teeth usually takes place, which the author has ever met with. In November, 1846, he was sent for to lance the gums of an infant only four months old. On examining the mouth, the gums on either side, of both jaws, immediately over the first temporary molaris, was found much swollen and inflamed. As these teeth were evidently forcing their way through the gums, and as the child was threatened with convulsions, it became necessary to lance them immediately. A few days after, the teeth made their appearance, but the central incisores, which should have appeared first, were not erupted until about the usual period.

Sometimes there is an extraordinary tardiness in the eruption of the temporary teeth. There is somewhere on record, the case of a child, which did not get any of its teeth until it was ten years old; and Lefoulon states that he saw a young girl of seven years of age, whose inferior incisores had not appeared. Several cases have come under the observation of the author in which dentition did not commence until the fifteenth, and one not until the twentieth month. On the other hand, there are cases of precocity of action in the eruption of the teeth equally remarkable, as for example, when the two lower incisores are cut at birth. Louis XIV was born with four teeth, and Polydorus Virgilius mentions a child that was born with six. Haller, in his Elements of Physiology, enumerates the cases of nineteen children who were born with teeth. Similar examples are on record, and there are few physicians or dentists who have been in practice ten or fifteen years, who have not met with them.

In speaking of these early productions, Mr. Fox says, "As they only have a weak attachment to the gums, they soon get loose, producing a consid-

Unable to display this page

and tender." "The robust, however," he says, are more subject to fever, and "that the extremes of high health, and of debility, are both dangerous; the one being exposed to acute fever, or convulsions, the other to a slow hectic and marasmus. Therefore, air, exercise, food of easy digestion in small quantities, and taken frequently, and every thing that has a tendency to promote general health, and to guard against fever, will greatly contribute to the safety of dentition."

In addition to the above, the bowels should be kept open, when necessary, with mild cathartics, such as senna and manna, magnesia, rhubarb, or castor oil, and should there be much fever with constipation, a dose of calomel may often be advantageously given. Cool drinks and refrigerant diaphoretics, as the neutral mixture and the spirit of nitric ether, are recommended as serviceable in controlling irregular nervous action. Should eruptions appear upon the skin, and especially upon the face, scalp, and behind the ears, no attempt should be made to dry them up, as the irritation which attends them, might in that case, fall upon some more vital organ, as the brain. When, as is often the case, an ulceration or scabby affection appears behind the ears, its continuance should be encouraged, and some physicians have recommended, in cases of difficult and obstinate dentition, when this disorder fails to appear, irritating it, by the application of blisters, and afterwards keeping them open.

But the most important indication, as is justly remarked by Dr. Underwood, is to assist the eruption of the teeth. For this purpose he recommends the application of cooling sedatives, and demulcent applications to the gums; rubbing them with some smooth hard substance, as the coral, and dividing them with the lancet. The last, after all, he says, "is the only mean to be depended upon," and when this operation is performed, it should be effectually done, cutting through not only the gum, but also the sac, so that they be completely relieved of the tension occasioned by the pressure of the advancing tooth. The lancet, therefore, should always be carried down to it by a single cut, making the incision in the direction of the curvature of the alveolar border. In cutting the gum over an incisor or cuspid tooth, the incision should be about a line in front of the summit of the ridge and directed slightly backward, to avoid cutting behind the tooth, as is often done. In cutting the gum over a molar tooth, a crucial incision is required, and each cut should be equal in extent to the diameter of the grinding surface of the tooth, in order to secure the full benefit of the operation.

The operation of lancing the gums is very simple and safe, and is rarely productive of much pain, often affording instantaneous and complete relief from the most painful suffering.

Of the advantages resulting from this operation, Dr. Underwood says, he is convinced that it "is often inexpressibly useful, and appears to have saved many lives, after the most dangerous symptoms had taken place, and every other means of cure had been made use of." The mere bleeding from the gums is capable of affording some relief, as it is frequently found to do in adult persons, distressed by the tooth-ache. And I cannot here forbear expressing my surprise at the fears some people entertain of lancing the gums and their delaying it so long, if not altogether rejecting it, though no evil can possibly arise from the operation. On the other hand its advantages are so great, that whenever convulsions take place about the usual period of dentition, recourse ought to be had to it, after an unsuccessful use of other means, though by an examination of the gums there may be no certain evidence of the convulsions being owing to such a cause; the irritation from teething sometimes taking place in the very early stage of the process. At

any rate, the operation can do no harm, even at any period, and should the shooting of teeth be only an aggravation to the true cause of the disease, lancing the gums must be attended with advantage. But should teething be the proper and sole cause, it is evident how fruitless any other means of relief must frequently be; for should convulsions, for instance, take place from a thorn run into the finger, or toe, the proper indication of cure is, an immediate extraction of the thorn, and the futility of other means, must be equally obvious.

"The operations may also be safely repeated, the scars doing no kind of harm. This, however, contrary to popular prejudice, may be readily proved, not only from the fact of infants cutting their first teeth very easily some weeks after being lanced, but also from the circumstances under which the second teeth are often cut. At this period, children from their more advanced age, and decreased irritability are less subject to fever, and evidently appear to suffer far less pain than in the first teething, though the second teeth often have to make their way through much more considerable scars than have been made by a lancet, from the gums having been lanced prematurely. This fact is likewise established from the many instances in which dentists have thought it expedient to draw out the first teeth long before the second are prepared to take their place. The objection to lancing the gums, from any apprehension arising from the scars, is, therefore, altogether ill-founded, and, indeed, it will be frequently necessary to lance the gums several times, especially on account of the extraordinary difficulty with which some infants cut their double teeth, which are furnished with two or more knobs or points. Purging, fever, and even convulsions, will sometimes arise from only one point of a large tooth offending the periosteum that covers it, and being nearer the surface than the other points, the lancet may sometimes not completely divide the membrane that lies over the rest; and this part not being injured by the tooth, the symptoms subside on having divided that portion of the membrane that was inflamed. But in a little time, another point of the same tooth is found to irritate the periosteum, and calls for the like assistance of the lancet, which again removes all the complaints. This, at least, I have conceived to be the process. When I have found lancing a large tooth immediately remove every terrible symptom, though the fever and other complaints have returned, and the whole of the tooth not appeared till the operation has been three or four times repeated. I have seen the like good effect from it, when children have been cutting a number of teeth in succession, and have bred them all without convulsions, nothing having relieved or prevented these terrible symptoms but lancing the gums, which has removed them every time it has been done, one or more teeth appearing in a day or two after each operation."

Regarding dentition as a healthy operation of the economy, Dr. Blake does not believe that the morbid effects which so frequently attend it, are as often determined by any irritation which it produces, and, therefore, is somewhat incredulous with regard to the benefit which is supposed to result from lancing the gums, except what may sometimes be derived from the depletion which follows the operation. But it should be recollected, that Dr. Blake's opinion was deduced more from theory than experience, for at the time he wrote, he had had but few opportunities of making observations upon this subject. Dr. Underwood's, on the contrary, being based upon extensive experience and numerous observations, carries with it a weight of authority, which entitles it to more than ordinary respect. Its truth too has been fully established by the experience of others.

It seldom happens, that any very

alarming morbid phenomena attend the dentition of the permanent teeth, though cases do occasionally occur in which serious and painful effects result from it, and especially from the eruption of the third molares. Several examples have fallen under our own immediate observation, and in another place, we have given the history of a case, communicated to us by Dr. Moberly of New Market, Md., of fatal phthisis pulmonalis which had resulted from the dentition of the wisdom teeth. Among a number of very interesting cases, related by Dr. Ashburner, is one of a young woman nineteen years of age, who had suffered for several months with profuse night sweats, starting in her sleep, cramps in her toes, calves of her legs, and fingers, who was finally relieved by lancing the gums freely over the lower wisdom teeth, which had not yet appeared.

But lancing the gum will not always remove the irritation produced by the dentition or growth of a wisdom tooth. It often happens that nothing short of the removal of the tooth itself will remove the morbid effects it has induced, and this becomes more especially necessary in the lower jaw, where, for want of room between the second molar and coronoid process or some other cause, the dens sapientiæ has been forced to take a false direction in its growth.

Dentition, Second. There is no operation of the animal economy more curious or interesting than that which is exhibited in the gradual destruction of the roots of the temporary, and in the growth and dentition of the permanent teeth. The time of life when this occurs, constitutes an important epoch in the history of every individual.

During childhood, each of the alveolar arches forms only about the half of a circle, but by a gradual elongation of the jaws, each, ultimately, forms nearly the half of an ellipsis, so that the number of teeth required at the one period, is but little more than half the number required at the other.

Moreover, the food of children is principally vegetables, which require but little mastication to prepare them for the stomach, whereas that of adults consists of an almost equal additional portion of animal substances, which, owing to the greater cohesion of their particles, require a more numerous and substantial set of instruments for their trituration.

So admirable is the economy of second dentition, that even before the shedding of the temporary teeth commences, and as soon as the jaws are sufficiently enlarged, four of the second set, one on each side, in each maxillary bone, make their appearance. Consequently, the number of teeth, after the completion of the first set, is never, unless by accident or disease, at all diminished.

The rudiments of the permanent incisores and cuspidati have attained their full size at birth, and each is situated immediately behind its corresponding temporary tooth.

The permanent teeth, with the exception of the bicuspides, are considerably larger than the temporary, and during the time of their formation are situated in the segment of a much smaller circle, which occasions great irregularity in their arrangement. But before the shedding of the first begins, the latter, by an increase in the depth of the jaws, and the development of the alveolar processes, are brought forward, so, that at about the fifth year, they are situated immediately below the temporary teeth in the lower, and nearly above them in the upper maxilla, occupying places in the alveolar border, corresponding in depth to the length of their respective roots.

By this arrangement, the permanent teeth occupy the smallest possible space in the jaws. The central incisores and cuspidati nearly fill the anterior part of the arch, while the lateral incisores are

thrown back behind and partly between them.

The following concise description of the relative position of the teeth, at the fifth year after birth, is given by Mr. Bell. "In the upper jaw, the central incisores are situated immediaely beneath the nose, the lateral incisores thrown back behind the points of the cuspidati; and the base of the latter scarcely a quarter of an inch below the orbit. In the lower jaw, the cuspidati are placed at the very base of the bone, with only a thin layer beneath them, but the crowding is much less considerable than in the upper jaw, from the smaller comparative size of the incisores.

"The permanent central incisor of the lower jaw, is placed immediately beneath the temporary, with its point directed a little backwards, behind the partially absorbed root of the latter. The lateral incisor, not yet so far advanced, is placed deeper in the jaw, and instead of being immediately beneath the temporary is situated with its point between the roots of this and the cuspidatus. The permanent cuspidatus is still very deeply imbedded in the bone, with its point resting between the roots of the temporary cuspidatus, and the first temporary molaris. The two spreading roots of the latter, encompass, as it were, within their span, the first bicuspis; and those of the second temporary molaris, in like manner, the second bicuspis. Nearly a similar arrangement is found to exist in the upper jaw, except that the teeth are altogether more crowded."

Before proceeding further with second dentition, it may be proper to offer a few remarks on the destruction of the roots and the shedding of the temporary teeth.

Shedding of the Temporary Teeth.

Some very singular notions were entertained among the ancients concerning the temporary teeth. Many thought they never had roots, inasmuch as they were observed to be wanting when they dropped out; others thought the crowns were removed, while the roots remained and served as germs for the permanent teeth.

This most wonderful operation of the economy is effected in accordance with an established law, but there exists, among physiologists, some difference of opinion with regard to the manner in which it is effected. To the absorbents, most writers ascribe the agency of its accomplishment. Mr. Fox supposes, that as the new teeth begin to rise from their sockets, they come in contact with, and press upon, first, the partition of bone intervening between them and the roots of the temporaries, and afterwards upon the roots themselves; and this pressure, he believes, induces their absorption. He afterwards, however, admits that pressure is not necessary to their absorption, as it sometimes takes place where there is none.

Mr. Hunter does not attempt to explain the manner of the destruction of the roots of the temporary teeth in any other way than by stating, that they decay off up to the gum. Fauchard and Bourdet attribute their removal to the action of a corrosive fluid, supplied for the special purpose. Bunon thinks they are worn away by the rising teeth. Lecluse is of the opinion that when the process of their removal begins, their vessels cease to supply their nourishing juices, and that they are broken up by a species of maceration, while Jourdain believes it is both by abrasion and corrosion.

Mr. Bell, as do indeed almost all recent writers, adopts the theory of Mr. Fox, that the destruction of the roots of the temporary teeth is the result of absorption. Laforgue, observing a fungiform or carneous substance behind the root of the temporary tooth, which, in fact, had been noticed by Bourdet, and supposed by him to exhale a fluid which possessed solvent qualities, gave it the name of absorbing apparel, and assign-

ed to it the office of removing the root of the primary tooth.

Delabarre, who has treated this subject at greater length, and apparently, investigated it more closely, corroborates the views of Laforgue, and gives the following description of the manner of the formation and function of the carneous substance spoken of by this author as the absorbing apparel. "While the crown of the tooth of replacement," says Delabarre, "is only in formation, the exterior membrane of the matrix is simply crossed by some blood vessels; but as soon as it is completed, the capillaries are then developed in a very peculiar manner, and form a tissue as fine as cobweb; from this tissue the internal membrane, instead of continuing to be very delicate, and of a pale red color, increases in thickness and assumes a redder hue. As was before said, it is at the instant in which commences the reaction of the coats of the matrix, that are conveyed from the gum to the neck of the tooth, that the plaiting of the vessels, that enter into their tissue, compose a body of a carneous appearance, whose absorbents extend their empire over all the surrounding parts; it is, therefore, the dental matrix itself, which after being dilated to serve as a protecting envelop to the tooth, is contracted to form, not only this bud-like body which we find immediately below the milk tooth, at the instant in which it naturally falls out, and whose volume is necessarily augmented as odontocia gradually goes on, but also a carneous mass by which the whole is surrounded, and whose thickness is the more remarkable as the organ that it envelops is nearer its orifice."

After giving this description, he asks, "is there a dissolving fluid that acts chemically on the surrounding parts, or do the absorbents, without any intermediary, destroy every thing that would obstruct the shooting up of the tooth?" In reply to this, he says, "Not possessing positive proof, suitable to guide me in the decision of this question, and finding those of others of little importance, I shall not attempt to answer them."

In pursuing the subject further, he states that the vessels of the temporary tooth often remain entire in the midst of this carneous substance, continue to convey their fluids to the central part of the tooth, whilst the calcareous ingredients and the gelatine have been removed, and that, at other times, they too are destroyed; and the conclusion to which he arrives, after a careful examination of the whole subject, is, that whether the earthy and animal parts of the root are removed by the absorbents of the carneous tubercle in question without any previous change, or whether they are decomposed by the chemical action of a fluid exhaled from it, they are ultimately carried back into the general circulating system.

In proof of the agency of the fleshy tubercle in the destruction of the roots of the temporary teeth, he mentions one fact that goes very far to establish the truth of the supposition, and if his views be correct, will account for those cases which are occasionally met with, where one or more of the permanent teeth fail to appear. It is this: if this carneous substance fails to be developed, or is destroyed by an injudicious operation, the tooth often remains locked up in the jaw through life.

In as few words as possible, we have given the views of this ingenious writer, on the subject under consideration, and although they do not seem to have attracted much attention from English writers, and are rejected by Mr. Bell, on the ground, as he says, but which we have never known to be the case, that the destruction of the root of the temporary frequently commences on a part "the most remote from the sac of the permanent tooth," we are disposed to believe them, for the most part, correct. As to the existence of the fleshy tubercles, there can be no question, and that it is through the agency of these that

the roots of the temporary teeth are destroyed, we are fully convinced. But whether it is through the agency of their absorbent vessels or a chemical fluid exhaled for the purpose, may not, as Delabarre says, be so easy to determine.

The change that takes place in the external membrane of the dental sac, as noticed by Delabarre, is observable, first, on the peduncle or chord leading from it to the gum behind the temporary tooth. It here becomes thickened about the time the root of the new tooth begins to form, and assumes a fleshy or carneous appearance, and it is here that the destruction of the surrounding bone commences, enlarging the alveolo-dental canal, and gradually removing the intervening bony partition, and, finally, the root of the temporary tooth. The agency of this thickened and fleshy condition of the exterior membrane of the dental capsules, in the removal of the roots of the temporary teeth, is rendered more conclusive by the fact, that, in those cases where the roots of the permanent teeth have become partially destroyed, the alveolo-dental periosteum had assumed a similar appearance. In the formation, too, of alveolar abscess, the tubercle at the extremity of the root presents a like aspect.

There also seems to be, in this interesting operation of the economy, an association of functions, each dependent upon all the others, so that if one be suspended, the others fail to be performed. Thus, if from any cause, the fibres of the sac fail to contract, the fleshy tubercle is not developed, nor does the formation of the root take place—consequently, the crown of the tooth remains in the alveolus. Harmonious consent of associated functions are no where more beautifully exemplified than in these three operations of the economy.

It oftentimes happens, that the root of a temporary tooth fails to be destroyed, and that the crown of the replacing organ comes through the gum in a wrong place. Whenever this happens, the carneous body is developed only beneath the parts through the opening of which the new tooth has emerged, and is not brought in contact with the bony partition between it and the root of the temporary teeth.

The manner of the destruction of the roots of the temporary teeth has been a subject of close and critical inquiry with the writer for several years, and the more he has examined the subject, the more fully has he become convinced, that it is the result of the action of the fleshy tubercles upon them. And while its formation seems to be the result of the contraction of the sacs of the permanent teeth and their appendages, for the purpose of effecting the eruption of the teeth, they are especially charged with the removal of every thing that would obstruct their passage.

In conclusion, it is only necessary to observe, that the temporary teeth are shed in the order which they at first appeared. After one pair has been shed, a sufficient time usually elapses before the shedding of another, for those of the same class of the permanent set to come forward and take their place. Thus, the jaws are never deprived, unless from some other cause than the destruction of the roots of the temporary teeth, of more than two teeth in each jaw at any one time.

Having now briefly described the process of the shedding of the temporary teeth, we shall next notice the order of the eruption of the permanent, omitting, however, a description of their progress from the period when they first appear as mucous papillæ, until they are ready to emerge from the gums, as we shall have occasion to recur to this subject in another article. See Teeth, development of pulps and sacs of.

Eruption of the Permanent Teeth.

Second dentition usually commences at about six or seven years after birth,

and is generally completed, as far back as the second molares, by the twelfth or fourteenth year. The dentes sapientiæ seldom appear before the eighteenth or twentieth year. The periods of the eruption of the adult teeth, are, however, so variable, that it is impossible to state them with perfect accuracy. Sometimes the first permanent molares appear at four years, and the central incisores at five; at other times, they are several years later.

But as it is of some importance that the periods of the eruption of the several classes of the permanent teeth should be known, the author will state them with as much accuracy as possible.

First molares, from 5 to 6 years; central incisores, from 6 to 8 years; lateral incisores, from 7 to 9 years; first bicuspides, from 9 to 10 years; second bicuspides, from 10 to 11½ years; cuspidati, from 11 to 12 years; second molares, from 12 to 14 years; third molares, (dentes sapientiæ,) from 17 to 21 years.

But, as before stated, the periods of the eruption of the permanent teeth, like those of the temporary, are very variable. The cuspidati often appear before the second bicuspides, and, in some cases, the dentes sapientiæ not until the thirtieth or even fortieth year, and, sometimes, they never show themselves. The author is acquainted with a gentleman who did not shed his left superior cuspidatus until he was twenty. A few months after, the permanent cuspidatus made its appearance. In fact, he has known the temporary cuspidati to remain until the fortieth year in several instances, but when shed at this late age they are rarely replaced. In the *General Archives of Medicine*, for June, 1840, the case of a woman is recorded, who, at the age of forty-three, erupted four permanent incisores, which came out behind the corresponding temporary teeth—these, up to this period, not having been shed. Four molares made their appearance a year later, and M. Desirabode says, he has met with similar cases. Like examples are mentioned by other writers.

Maury fixes the period for the eruption of the four first molares at from six to eight years, and M. Desirabode at from six to seven. Both of these authors, too, place the cuspidati, in the order of the eruption of the teeth, before the second bicuspides.

The irritation consequent upon the eruption of the permanent teeth, is usually very slight, and with the exception of the dentes sapientiæ, seldom occasions much inconvenience. This is owing to the fact, that when second dentition commences, the system has acquired so much vigor and strength, that it is not easily affected by slight morbid impressions, and that the gums offer, comparatively, little resistance to the exit of the teeth, for when the temporaries drop out, the others are generally so far advanced as almost immediately to protrude. And even when this is not the case, the cicatrix that forms over the permanent tooth is usually of so spongy a texture, that it readily yields to the action of the absorbents. The process, too, is more gradual, from six to eight years being required for its completion, while the dentition of the first teeth is accomplished in less than half that time.

During the progress of the temporary as well as the permanent teeth, great changes are going on in the maxillary bones, which it will be proper, in this connection, to notice.

Accretion of Maxillary Bones.

The increase of the maxillary bones during the development and growth of the teeth is thus described by Mr. Thomas Bell: "In the first place, the relative proportions between the maxillary bones and the teeth vary considerably, at different periods of this growth, without a knowledge of which, it would be impossible to comprehend in what manner the former become ultimately accommodated to the difference in size between the permanent and

adult sets. In the second place, the form of the jaws themselves, also, undergoes a great alteration during the advance of the permanent teeth, to afford room for the three molares, which are added to the number of the former set. The jaws of a child, anterior to the ascending plate in the lower, and to the tubercle in the upper, are semi-circular, whilst those of the adult are very elliptical; and as the anterior part of the latter, as far back as those teeth which have succeeded the temporary, including the incisores, cuspidati and bicuspides, is of nearly the same form and size as it had been in childhood, it follows, that the elongation must have principally taken place between the situation of the second bicuspides and the ascending plate in the lower jaw, and between the same teeth and the tubercle in the upper: in other words, that the additional length of the maxillary bones is formed for the reception, and, consequently, in the situation of the *additional* teeth—the permanent molares, that is to say, posterior to the temporary teeth. The progress of these changes is now to be described. At the earliest period at which mention has been made of the existence of the dental rudiments, they are found to be arranged with perfect regularity within the jaws; but as ossification advances upon them faster than the jaws expand, they gradually become crowded, and the incisores are placed almost in contact with the molares, in consequence of the cuspidati being thrust, as it were, out of their place. The jaw, however, continues to enlarge, and, at length, allows of the temporary teeth being regularly placed in the gum. But as the permanent teeth advance in their formation, the proportions are again altered, and these are crowded to a still greater degree than the former, and continue to be so to a certain extent during almost the whole period of their growth. Viewing them in this state alone, it would, indeed, be difficult to imagine by what means they could ever become regularly arranged. It was the opinion of Hunter, in which he was followed by Fox, that the increased size of the permanent incisores, when compared with the temporary, is exactly counterbalanced by the smaller size of the bicuspides, compared with the temporary molares which they succeed; and the figures given by both these authors, purporting to exhibit a comparative view of the lower jaw, in different stages of its growth, is so constructed as to favor this opinion to the utmost. It is, however impossible, upon the grounds taken by these authors, to reduce this question to any thing like mathematical accuracy; for, as Dr. Blake very justly observes, the arch of a jaw of a child of a year old may even exceed the arch of an adult. It is, therefore, obvious, that no comparison instituted between the jaws of different individuals, can be at all conclusive. The only way in which the fact can be ascertained, is by making observations on the same person at different ages, and comparing the arch of the jaw at seven years of age, with the same jaw at twelve or fourteen. This we have repeatedly done, and have no hesitation in saying, that the ten anterior permanent teeth occupy a somewhat larger arch than the temporary ones which preceded them had done, and, consequently, that the view taken by Hunter and Fox, is incorrect, though not to the extent which Dr. Blake and M. Delabarre have supposed. As is often the case, the medium between the two conflicting statements would appear to be nearest the truth. When the permanent incisores, therefore, have made their appearance, were the cuspidati immediately to succeed them, it would be impossible that they should ever occupy their regular situation in the arch, because there is not room for them between the incisores and the temporary molares: but as at least one of the lateral teeth is shed, before the cuspidati comes through the gum, and as the bi-

cuspides occupy less room than their predecessors, the necessary accommodation is, by these two circumstances, ultimately produced in every well proportioned jaw."

It sometimes happens that the jaws in their accretion are badly developed, and have a faulty configuration. This may occur with one or both jaws. The alveolar arch is sometimes too narrow, having a compressed appearance, and projecting so far forward as to prevent the upper lip from covering the front teeth, and thus imparting to the individual an exceedingly disagreeable appearance. In cases of this sort, the roof of the mouth, instead of presenting an oval arch, forms an irregular triangle. At other times the alveolar arch is too wide, causing the teeth to be separated from each other, and the roof of the mouth to present a flattened appearance.

Similar defects are met with in the configuration of the lower jaw. Its sides may be too close together, causing the inferior front teeth to project and to cross and strike on the outside of the upper incisores, or it may describe too large a circle.

These defects are regarded as hereditary, and are more peculiar to some nations than others. The tendency to them is observable in early childhood, and even in infancy. Many suppose they are determined by a rickety diathesis of the general system, but this opinion has been proven to be incorrect by the fact, that those affected with this disease generally have good palates and well developed jaws. So far, indeed, from its having any agency in their production, rickets is thought by some medical writers to be produced by dentition, assigning as a reason for this belief, its frequent occurrence at the period of life, when this process is going on; but this opinion is, doubtless, as incorrect as is the other and opposite one. The cause of rickets is involved in as much obscurity as is that of the peculiarities now under consideration, in the formation of the jaws.

There is a species of deformity in the upper jaw, the cause of which is equally difficult of explanation, characterized by one or more divisions of the upper lip, alveolar ridge and palatine arch, and necessarily accompanied by an irregularity in the arrangement of the teeth. This deformity is always congenital, and oftentimes exceedingly difficult to remedy.

Any infringement of the laws of growth, or disturbance of the functional operations of any of the organs of the face or head, may determine an improper development of the jaws and a bad arrangement of the teeth; and on the other hand, a perfect, and healthful performance of the several functions of all the parts concerned in the formation and growth of this portion of the organism, will secure a natural development and configuration of the maxillary bones.

Dentition, Second, Method of Directing. As it regards the beauty, health and durabiltty of the teeth, there is nothing more to be dreaded, and at the same time more easily prevented, than irregularity in their arrangement. In proportion, too, to the deviation of these organs from their proper position in the alveolar arch, are the features of the face and the expression of the countenance injured. It also increases the susceptibility of the gums and alveolodental membranes to morbid impressions.

It is, therefore, important that the mouth, during the dentition of these teeth, should be properly cared for; and so thoroughly convinced is the author of this, that he does not hesitate to say, that if timely precaution was used, there would not be one decayed tooth where now there are a dozen.

Much harm, it is true, may be done by improper meddling with the teeth during this period, but this, so far from inducing a total neglect, should only make those

having the care of children, more careful to secure the services of scientific, accomplished practitioners.

For the judicious management of second dentition, much judgment and a correct knowledge of the periods of the appearance of the several classes of teeth, are required. All unnecessary interference with these organs at this early period of life should certainly be avoided, as it will only tend to mar the perfection at which nature ever aims. The legitimate duty of the physician being, as Mr. Bell correctly observes, "the regulation of the natural functions when deranged," he should never anticipate the removal, by nature, of the temporary teeth, unless their extraction be called for by some very urgent necessity.

During the dentition of the teeth of replacement, the mouth should be frequently examined from the time the shedding of the deciduous teeth commences until the second set is completed; and when the growth of the permanent teeth so far outstrips the destruction of the roots of the temporary, that they are caused to take an improper direction, the primitive teeth, that have occasioned the obstruction, should be immediately removed. In the dentition of the upper front teeth this should never be neglected; for, when they come out behind the temporaries, as in such cases they most frequently do, and are permitted to advance so far as to fall on the inside of the lower incisores, a permanent obstacle is offered to their subsequent proper adjustment.

When a wrong direction has been thus given to the growth of the lower front teeth, they are rarely prevented from acquiring their proper arrangement by an obstruction such as that last noticed. They should not, however, on this account, be allowed to occupy a false position too long, for the evil will be found much easier of correction while recent, than after it has continued for a considerable length of time. The irregularity should, therefore, be immediately removed.

The permanent central incisores of the upper jaw, are much larger than those of the temporaries of the same class. It might, therefore, be supposed, that the aperture formed by the removal of the one, would not be sufficient for the admission of the other, without an increase in the size of this part of the maxillary arch. It should, however, be recollected that, by the time these teeth usually emerge from the gums, the crowns of the temporary lateral incisores are so much loosened by the wasting of their roots, that they yield sufficiently to the pressure of the new teeth, to admit of their taking their proper position within the dental circle. When this, however, does not happen, the temporary laterals should be extracted.

Under similar circumstances, a similar course should be pursued with the permanent lateral incisores and the temporary cuspidati, and with the permanent cuspidati and the first bicuspides.

The bicuspides being situated between the fangs of the temporary molares are seldom caused to take an improper direction in their growth. Neither are they often prevented from coming out in their proper places by want of room.

In the management of the dentition of the adult teeth, much will depend on the experience and judgment of the practitioner. If he be properly informed upon the subject, and gives to it the necessary care and attention, the mouth will, in most instances, be furnished with a healthy, well arranged, and beautiful set of teeth. At this time, "an opportunity," says Mr. Fox, "presents itself for effecting this desirable object," (the prevention of irregularity,) "but every thing depends upon a correct knowledge of the time when a tooth requires to be extracted, and also of the particular tooth, for often more injury is occasioned by the removal of a tooth

too early, than if it be left a little too long; because a new tooth, which has too much room long before it is required, will sometimes take a direction more difficult to alter, than a slight irregularity occasioned by an obstruction of short duration."

Mr. Bell objects to the extraction of the temporary teeth, especially in the lower jaw, to make room for the permanent ones, on the ground that the practice is harsh and unnatural—that it often gives rise to a contraction of the maxillary arch, and that in consequence of the peduncular connection that exists between the necks of the temporary teeth and the sacs that surround the crowns of the permanent ones, it interferes with the uniform deposition of the enamel.

These objections are certainly very forcible, and should deter every dentist from adopting the practice, except as a dernier resort—as the least of two evils. But when the temporary teeth, by remaining too long are likely to effect the arrangement, and, consequently, the health of the permanent teeth, they should be extracted; because, in that case, their presence is an evil greater than any that would be occasioned by their removal. This last objection, however, can only apply to the extraction of the temporary teeth before the formation of the enamel of the permanent. As a general rule they should be suffered to remain as long as they are not an injury to the permanent teeth and their contiguous parts.

When the permanent teeth are much crowded, the lateral pressure is frequently so great as to fracture the enamel. If this cannot be avoided, in any other way, one of the permanent teeth on each side should be extracted; for it is better to sacrifice two than permanently to endanger the health of the whole.

M. Delabarre, in cases where the crowding is not very great, recommends the passing of a file between the teeth; as does also Mr. Bell, when only the space that is usually occupied by half of a tooth, is required.

Notwithstanding the deservedly high authority of these two gentlemen, my own experience compels me to disapprove the practice. The apertures, thus formed by the file, soon close, but not so perfectly as to prevent small particles of food and other extraneous matters from getting between the teeth, where they are retained until they become putrid, vitiating the secretions of the mouth and ultimately causing the decay of the organs.

The file, therefore, should never be used with a view to remedy an irregularity; the extraction of two teeth, one on each side of the jaw, however small the space required to be gained may be, is far preferable. The second bicuspides, *ceteris paribus*, should always be removed rather than the first, but sometimes, the extraction of the first becomes necessary. The extraction of these, however, should never be determined on, when the evil can be corrected by the removal of the others.

By the removal of two teeth, ample room will be gained for the development and regular arrangement of all the remaining organs, and the injury that usually result from a crowded state of the teeth prevented.

On the filing of teeth, to prevent irregularity, Dr. Fitch judiciously remarks: "I consider the expediency of filing or not filing the teeth, to be a subject of serious deliberation on the part of the dental practitioner, and I never, especially in young persons, perform the operation, unless obliged to do so, to cure actual disease.

"I was greatly surprised, in the late work of Mr. Bell, to see directions to file slightly irregular and crooked teeth, so as to gain about one half a tooth of room."

Nature, when permitted to proceed without interruption, is able to perform all her operations in a perfect and har-

monious manner. But the functional operations of all the parts of the body are liable to be disturbed from an almost innumerable number and variety of causes, and an impairment of one organ oftentimes gives rise to derangement of the whole organism; and for the relief of which, the interposition of art not unfrequently becomes necessary, and it is fortunate for the well being of man, that it can, in so many instances, be applied with success.

Dentition, Third. That nature does sometimes make an effort to produce a third set of teeth, is a fact, which, however much it has hitherto been disputed, is now so well established, that no room is left for cavil or doubt.

The following interesting particulars are taken from *Good's Study of Medicine:*

"We sometimes, though rarely, meet with playful attempts on the part of nature, to re-produce teeth at a very late period of life, and after the permanent teeth have been lost by accident, or by natural decay.

"This most commonly takes place between the sixty-third and eighty-first year, or the interval which fills up the two grand climacteric years of the Greek physiologists; at which period the constitution appears occasionally to make an effort to repair other defects than lost teeth. * * * * *

"For the most part, the teeth, in this case, shoot forth irregularly, few in number, and without proper fangs; and even where fangs are produced, without a renewal of sockets. Hence, they are often loose, and frequently more injurious than useful, by interfering with the uniform line of indurated and callous gums, which, for many years perhaps, had been employed as a substitute for the teeth. A case of this kind is related by Dr. Bisset, of Knayton, in which the patient, a female in her ninety-eight year, cut twelve molar teeth, mostly in the lower jaw, four of which were thrown out soon afterwards, while the rest, at the time of examination, were found more or less loose.

"In one instance, though never more than one, Mr. Hunter witnessed the reproduction of a complete set in both jaws, apparently with a renewal of their sockets. 'From which circumstance,' says he, 'another that sometimes happens to women at this age, it would appear that there is some effort in nature to renew the body at that time.'

"The author of this work once attended a lady in the country, who cut several straggling teeth at the age of seventy-four; and, at the same time, recovered such an acuteness of vision, as to throw away her spectacles, which she had made use of for more than twenty years, and to be able to read with ease the smallest print of the newspapers. In another case, that occurred to him, a lady of seventy-six, mother of the late Henry Hughes Eryn, printer of the journals of the House of Commons, cut two molares, and at the same time completely recovered her hearing, after having for some years been so deaf as to be obliged to feel the clapper of a small hand-bell, which was always kept by her, in order to determine whether it rung or not.

"The German Ephemerides contain numerous examples of the same kind; in some of which, teeth were produced at the advanced age of ninety, a hundred, and even a hundred and twenty years. One of the most singular instances on record, is that given by Dr. Slade, which occurred to his father; who, at the age of seventy-five, re-produced an incisor, lost twenty-five years before, so that, at eighty, he had, hereby, a perfect row of teeth in both jaws. At eighty-two, they all dropped out successively; two years afterwards, they were all successively renewed, so that, at eighty-five, he had at once an entire set. His hair, at the same time, changed from a white to a dark hue; and his constitution seemed, in some degree, more healthy and vigorous. He died

suddenly, at the age of ninety or a hundred.

"Sometimes, these teeth are produced with wonderful rapidity; but, in such cases, with very great pain, from the callosity of the gums, through which they have to force themselves. The Edinburg Medical Commentaries supply us with an instance of this kind. The individual was in his sixty-first year, and altogether toothless. At this time, his gums and jaw-bones became painful, and the pain was at length excruciating. But, within the space of twenty-one days from its commencement, both jaws were furnished with a new set of teeth, complete in number."

A physician of this city informed the author, about twelve months since, that a case of third dentition had come under his own observation. The subject of it was a female, who, at the age of sixty, erupted an entire set, and distinctly recollected the periods at which the preceding sets were cut.

The following extract of a letter from Dr. J. C. McCabe describes another very interesting case:

"I have just seen," says Dr. M., "a case of third dentition. The subject of this 'playful freak of nature,' as Dr. Good styles it, is a gentleman residing in the neighborhood of Coleman's Mill, Caroline county, Virginia. He is now in his seventy-eighth year, and, as he playfully remarked, 'is just cutting his teeth.' There are eleven out, five in the upper, and six in the lower jaw. Those in the upper jaw, are two central incisores, one lateral, and two bicuspides, on the right side. Those in the lower, are the four incisores, one cuspidatus, and one molaris. Their appearance is that of bone, extremely rough, without any coating of enamel, and of a dingy brown color."

Several examples somewhat like the foregoing, have come under our own observation. The subject of the first, was a shoemaker, Mr. M. of Baltimore, who erupted a lateral incisor and cuspidatus at the age of thirty. Two years before this time, he had been badly salivated, and, in consequence, lost four upper incisores, and one cuspidatus. The alveoli of these teeth were caused to exfoliate, and, at the time we first saw him, were entirely detached from the jaw, and barely retained in the mouth by their adhesion to the gums. On removing them, we found two white bony protuberances, which, on examination, proved to be the crowns of an incisor and a cuspidatus. They were perfectly formed, and though they are shorter than the other teeth, yet up to the present time, they have remained very firm in the jaw. The teeth, that he had lost by salivation, were preserved, and are now in our possession. They are large, and have all the characteristics of those of second dentition.

The subject of one of the other cases, was a lady, residing near Fredericksburg, Virginia, who erupted four right central incisores of the upper jaw, successively. One of her temporary teeth, in the first instance, had been permitted to remain too long in the mouth, and a permanent central incisor, in consequence, came out before the dental arch. To remedy this deformity, the deciduous incisor was, after some delay, removed; and, about two years after, the permanent tooth, not having fallen back into its proper place, was also extracted. Another two years having elapsed, another tooth came out in the same place, and in the same manner; and, for similar reasons, was also removed. To the astonishment of the lady and her friends, a fourth incisor, occupying the same position as the preceding ones had, made its appearance two years and a half after the extraction of the last named tooth. When it had been out about eighteen months, the author was consulted by the lady, who wished him, if possible, to adjust it. Finding that it could not be brought within the dental circle, he advised her to have it extracted, and an artificial

tooth inserted in its place. To this she readily consented.

The author only saw one of the teeth that had been previously extracted; this was well developed, and he was informed that the others were equally perfect. All the circumstances, connected with these successive dentitions, were distinctly recollected both by the lady and by her friends.

Dr. W. H. Dwinelle, in the second number of the eighth volume of the American Journal and Library of Dental Science, gives the history of a case of four successive dentitions of the medial or central incisores, and other examples might be adduced, but the foregoing will suffice.

No attempt, that the writer is aware of, has ever been made to explain the manner of the formation of these anomalous productions. The rudiments of the teeth of first and second dentition, are the product of mucous membrane, while those of third dentition, would *seem* to have their origin in the periostial tissue, if not from the bone itself.

In obedience to what law of developmental anatomy are they formed? Certainly, to none primitively impressed upon the animal economy, for they have never been known to appear while the secondary teeth remain in the jaws. If the establishment of the law which governs the development of a part, depends upon a certain condition of other contiguous parts, it is possible, that the following may furnish a correct explanation of the phenomenon. Certain parts, in certain states or conditions, and in particular locations, perform functions peculiar to the latter. In other words, the condition and location of a part, determines the function or functions which it performs. For example, when the mucous membrane along the course of the alveolar border begins to assume a duplicated or grooved appearance, which it does at about the sixth week of intra-uterine existence, dental papillæ shoot up from it, and when, by a similar duplication of this same tissue, behind the sacs of the temporary teeth, forming what Mr. Goodsir styles "cavities of reserve," the papillæ of the permanent teeth, one from the bottom or distal extremity of each duplication, begins to be developed. Hence, it would seem, that this particular state or condition of this tissue, and in these particular locations, is necessary to determine the development of teeth germs. This arrangement or condition of mucous membrane, in these particular locations, which always results from the development of the fetus, may be sometimes produced by accidental causes, after all the organs of the body have obtained their full size, or at any time during life; and, when it does occur, it is not unreasonable to suppose that a new tooth papilla should be formed. Proceeding still farther, the development of a dental papilla is the signal for the production of a dental follicle, which ultimately becomes a sac, and then an organ to supply the tooth, now considerably advanced in the process of formation, with a covering of enamel. But as the maxillary bone has previously attained its full size, it rarely, if ever, happens that alveoli are formed for these accidental productions, and, consequently, they seldom have roots, or if they do, they are very short and blunt. They are usually connected to the periosteum of the alveolar border, and this union is sometimes so close and intimate, that very considerable force is necessary for their removal, or, at least, so far as our own observations go upon the subject, and we have had occasion to extract several in the course of our practice. As a general rule, however, they loosen in the course of a few years and drop out.

But it may be asked, how are such accidental duplications of the mucous membrane formed? This is a question, we admit, which it may not be easy to answer satisfactorily, but we do not think it at all improbable, that they occur during the curative process that fol-

lows the removal of one or more teeth. The granulated walls of the gums surrounding an alveolus from which a tooth has been extracted, may become covered with this tissue before the socket is filled with a deposit of new bone, or, at any rate, of the surfaces of the duplicated membrane near the bone, and whenever such arrangement or condition of this tissue does take place, upon the alveolar border, and that it may, occassionally, we think there can be no question, it is probable that a new tooth papilla is produced, which, in the progress of its development, induces the formation of the various appendages necessary to the production of a perfect tooth.

This, in our opinion, is the only way that these fortuitous productions can be accounted for in accordance with true physiological principles. It seems impossible to explain the manner of their formation in any other way. All must admit that the presence of mucous membrane is necessary to originate them, and we cannot conceive of any other way by which its presence beneath the general surface of the gums can be accounted for; but, if we admit this explanation to be correct, the question is at once solved. We believe it is also owing to the accidental occurrence of a certain arrangement or condition of the mucous membrane concerned in the production of the permanent teeth, consisting, most likely, of the formation of one or more "cavities of reserve" than is called for by the teeth of this dentition, that the development of supernumerary teeth are attributable.

The operations of nature, it is true, are so secretly carried on, that we cannot see the precise *modus operandi* by which they are effected, yet in the development of the various organs and structures of the body, we may see them in the various stages of their growth, as well as what precedes their arrival to these various stages in the progress of their formation, and upon which their accretion would seem to be dependent. The periods for the arrival of these stages of development, though somewhat irregular, occur for the most part, in normal conditions of the body, at certain fixed epochs. Thus, the papilla of the first temporary molar may usually be seen between the sixth and seventh weeks of intra-uterine existence, but previously to this time a slight groove or depression is observable in the mucous membrane of the part from whence it has its origin. The same is true with regard to the papillæ of all the other teeth, though the time for the commencement of their formation occurs at later periods. The peculiar change which takes place in the arrangement of the mucous tissue here, as well as the periods at which they occur, is doubtless determined by certain stages in the development of other parts, and these very likely may determine the established number which the teeth of both dentitions have.

If the foregoing views which we have advanced be correct, these fortuitous productions are not the result of a mere freak of nature, as they are sometimes facetiously styled. They are the result of the operation of an established law of the economy; and although, after the completion of the teeth of second dentition, its course is suspended, the occurrence of a similar arrangement or condition of the mucous tissue in the parts in question, will again put it in operation.

DENTIUM CAVERNÆ. The sockets of the teeth.

DENTON'OMY. *Dentonomia;* from *dens,* a tooth, and *ονομα,* a name. The arrangement of the teeth into classes. Also, the classification of the teeth according to their physiognomical characters, and their pathological and physiological indications. See Teeth, characteristics of.

DENTIUM CORTEX. The enamel of the teeth.

DENTIUM DOLOR. See Odontalgia.

DENTIUM SCALPTURA. Lancing the gum over a tooth. See Dentition, morbid.

DENTOIDEUS. Odontoid; tooth-like.

DENTS BARRÉES. See Barred Teeth.

DENTS BICUSPIDEES. The bicuspid teeth.

DENTS CONOÏDES. The canine teeth.

DENTS DE LAIT. The milk, or temporary teeth.

DENTS MACHELI'ERES. The molar teeth.

DENTS MOLARES. The molar teeth.

DENTS MULTICUSPIDEES. The large molar teeth.

DENTURE. A complete set of teeth. The whole assemblage of teeth in both jaws.

DENUDATION. *Denudatio;* from *denudare*, to make bare. The laying bare, or deprivation of a part of its covering, or envelop. In *Surgical Pathology*, it is usually applied to bones deprived of their periosteum. In *Dental Pathology*, to the teeth when deprived of their enamel, or when the roots are exposed by the recession of the gums and the destruction of their sockets.

DENUDING OF THE TEETH. An affection which consists in the gradual destruction of the enamel of the anterior or labial surfaces of the incisores, cuspidati, and sometimes of the bicuspides; the molares are rarely affected by it. It generally forms a continuous horizontal groove, commencing with the central incisores, and afterwards extending to the laterals, the cuspidati and bicuspides, as smooth and regular as if it were made with an oval file, though sometimes it spreads over nearly the whole of the anterior surface, completely denuding this part of the organs of enamel. After having removed the enamel, it attacks the subjacent bone, the groove becoming gradually deeper and deeper, until the pulp cavities of the teeth are exposed. The color of the enamel is rarely changed, but the bone, as soon as it becomes exposed, assumes, first, a light, and afterwards a dark brown appearance—the surface of the groove the whole time remains perfectly hard and smooth. This most curious and singular affection usually commences at a single point upon each of the central incisores, and proceeds horizontally backwards, but at other times it attacks several points almost simultaneously, but gradually the affected parts approach and unite, giving to the enamel the appearance of having been scooped out with a broad, round, or square pointed instrument.

With regard to the cause of this singular affection, it has never been satisfactorily explained. Mr. Hunter, who was the first to describe it, calls it "decay by denudation," and is of the opinion, inasmuch as it attacks certain teeth rather than others, that it is a disease inherent in the tooth itself, and not dependent on circumstances which occur in after life. Mr. Fox frankly acknowledges his inability to assign any cause for the affection, conjecturing, however, that it may be dependent upon some solvent quality of the saliva. Mr. Thomas Bell also confesses his inability to explain it, but from the horizontal direction which it takes, thinks it may be connected with the manner in which this substance is deposited, during its formation; "for," says he, "it will be recollected, that it first covers the apex of the tooth, and gradually invests the crown by *successive circular depositions;* it is, therefore, not improbable, that from some temporary cause, acting during its deposition, certain circular portions may be more liable to mechanical abrasion, or other injury, than the rest."

This explanation, however, is far from being satisfactory; for, if as he supposes, certain circular portions of enamel are more imperfectly formed than others, and thus rendered more liable to be attacked by the disease, it would not be exclusively confined to the labial surfaces of the organs, but would

extend entirely around them, and as soon as these imperfectly formed circles were destroyed, its ravages would cease.

Other writers have thought that it might be caused by the friction of the lips, or of a tooth brush, but these hypotheses are too palpably absurd to require refutation.

The conjecture of Mr. Fox that the affection may be produced by some solvent quality of the fluids of the mouth, is unquestionably correct, and we think it is clearly ascribable to an acidulated condition of the mucous secretions of this cavity. The other teeth being more constantly bathed in the saliva than the anterior surfaces of the incisores, cuspidati and bicuspides, the mucous fluids of the mouth are either washed from them, or so diluted as to render them harmless, but upon the parts of the teeth last mentioned, it is often permitted to remain for days. That this is the true cause would seem to be rendered certain by a case which fell under the observation of Dr. E. Parmly a few years since, in which the crowns of human teeth, used as a dental substitute, were attacked by this curious affection—thus proving, most conclusively, that the loss of substance was caused by the action of chemical agents, and if such cause is capable of producing it in one case, it is in all others.

In the treatment of this affection, the most that can be done, is, to widen the groove at the bottom, after it has progressed far enough to require it, and fill the cavity with gold. This will arrest its farther progress. See Filling Teeth.

DEOB'STRUENT. *Deobstruens;* from *de*, and *obstruere*, to obstruct. Medicines which remove obstructions, as aperients. The word has an indefinite meaning and is now seldom used.

DEPILA'TION. *Depilatio;* from *de*, and *pilus*, hair. Loss of hair.

DEPIL'ATORY. That which causes the loss of the hair, as caustic lime, &c.

DEPLE'TION. *Depletio;* from *depleo*, I unload. The act of diminishing the fulness of the vascular system, by the abstraction of blood, or by any system of evacuation.

DEPLE'TORY. That which tends to deplete, as blood-letting, emetics and cathartics.

DEPLUMA'TION. *Deplumatio;* from *deplumis*, without feathers. A disease of the eyelids which causes the loss of the eyelashes.

DEPOSIT. From *depono*, to lay down. In *Dental Pathology*, the precipitation of an earthy substance (commonly called tartar) upon the teeth. In *General Pathology*, the accumulation of fat in an abnormal position, or morbid growths. The sediment of the urine is also called a deposit.

DEPRAVA'TION. *Depravatio;* from *de*, and *pravo*, to corrupt. A depraved condition, or morbid change in the solids or fluids of the body; also, depravation of taste or sight.

DEPRES'SANTS. That which reduces the vital energy, by diminishing the frequency of the pulse, or the action of the heart and arteries.

DEPRES'SED. Flattened from above downwards.

DEPRES'SION. *Depressio;* from *deprimere*, to press down. In *Anatomy*, a fossa, hollow, or excavation. In *Surgery*, applied to fractures of the cranium in which portions of the bone are depressed; also, to an operation for cataract, which consists in the depression of the opaque lens from the axis of vision into the vitreous humor. In *Dental Anatomy*, to the indentations on the grinding surfaces of the molar and bicuspid teeth.

DEPRES'SOR. In *Anatomy*, any muscle which depresses the part on which it acts. In *Dental Surgery*, an instrument employed for confining the tongue to the floor of the mouth while introducing a filling into a tooth of the lower jaw. See Tongue-holder.

Depressor Alæ Nasi. See Depressor Labii Superioris Alæque Nasi.

Depressor An'guli Oris. A mus-

cle of a triangular form, situated beneath the lower lip. It arises broad and fleshy from the base of the lower jaw at the side of the chin, and is inserted into the angle of the mouth.

DEPRESSOR LA'BII INFERIO'RIS. A small thin muscle, which arises from the side and front of the lower jaw at its base, and is inserted into the greater part of the lower lip.

DEPRESSOR LABII SUPERIORIS. A muscle situated above the mouth; it arises from the alveolar processes of the incisor and cuspid teeth, and is inserted into the upper lip and side of the ala of the nose.

DEPRES'SORIUM. An instrument used to guard the dura mater when the skull is cut or sawed through.

DEPRIMENS AURICULÆ. See Retrahens Auris.

DEPURA'TION. From *depurare*, to purify. In *Pathology*, a process for purifying the animal economy; also, the clarification of any thing.

DEP'URATORY. *Depuratorius.*—That which purifies the body, or removes from it morbid humors, whether it be disease, or medicines and diet.

DERADENI'TIS. From δερη, neck; αδην, a gland, and *itis*, signifying inflammation. Inflammation of the glands of the neck.

DERANGEMENT. Insanity.

DERIVA'TION. *Derivatio;* from *derivo*, to drain off. The drawing away of any morbid vital action from its original seat to a less important part, by exciting irritation, or inflammation in it, by the application of some local stimulant.

DERIV'ATIVE. That which procures a derivation. Revulsive medicinal agents.

DERMA. The cutis, or skin.

DERMAL'GIA. From δερμα, the skin, and αλγος, pain. Pain in the skin. Cutaneous neuralgia.

DERMATAGRA. Pellagra.

DERMATITIS. *Dermatis.* Erysipelatous inflammation.

DER'MATOID. *Dermatoides;* from δερμα, the skin, and ειδος, form. Resembling the skin. Applied to tissues which resemble the skin.

DERMATOL'OGY. *Dermatologia;* from δερμα, the skin, and λογος, a discourse. A treatise on the skin.

DERMOG'RAPHY. *Dermographia;* from δερμα, the skin, and γραφω, I describe. A description of the skin.

DERMOHÆ'MIA. From δερμα, and αιμα, blood. Hyperæmia, or excessive vascularity of the skin.

DERMOID. Dermatoid.

DERMOLOGY. Dermatology.

DERMOT'OMY. *Dermotomia;* from δερμα, the skin, τεμνειν, to cut. The dissection of the skin.

DESCEN'DENS NONI. The hypoglossal nerves.

DESCHAMP, (the Younger.) Author of a Treatise on the Diseases of the Nasal Fauces and their Sinuses, published at Paris, 1804.

DESICCA'TION. *Desiccatio;* from *desicco*, to dry up. The drying up of any thing.

DESIC'CATIVE. *Desiccativus;* from *desicco*, to dry up. Medicines possessed of drying properties, and which are used for drying up ulcers.

DESIRABODE AND SONS. Authors of Complete Elements of the Science and Art of the Dentist; followed by an Historical and Chronological Notice of the Works published on the Dental Art, from the time of Hippocrates, &c., &c., published at Paris in 1845. This is one of the most complete works on the theory and practice of dental surgery, which has ever come from the French press. It is published in two volumes, both making upwards of eight hundred pages. A translation of it has been published in the Library part of the American Journal of Dental Science.

DES'MA. From δεσμος, a ligament or bandage. A ligament or bandage.

DESMOG'RAPHY. *Desmographia;* from δεσμος, a ligament, and γραφη, a de-

scription. A description of the ligaments.

DESMOID TISSUE. Ligamentous tissue. This tissue has a close resemblance to the cellular, and in some places is continuous with it. It constitutes aponeuroses and ligamentous membranes, and consists of condensed cellular tissue.

DESMOL'OGY. *Desmologia;* from δεσμος, a ligament, and λογος, a discourse. A treatise on the ligaments.

DESMOPH'LOGY. *Desmophlogia;* from δεσμος, a ligament, and φλογεος, inflamed. Inflammation of the ligaments.

DESMORRHEX'IS. From δεσμος, a ligament, and ρηξις, rupture. Rupture of a ligament.

DESMOS. A ligament.

DESMOT'OMY. *Desmotomia;* from δεσμος, a ligament, and τεμνειν, to cut. Dissection of the ligaments.

DESPRE. Author of a Dissertation on Difficult Dentition, published at Efr, 1720.

DESPUMA'TION. *Despumatio;* from *despumo*, to clarify. The clarification of a fluid by separating from it the scum and other impurities.

DESQUAMA'TION. *Desquamatio;* from *disquamare*, to scale off. Exfoliation, or the separation of scales, of a greater or less size, from the skin.

DESUDA'TIO. From *desudo*, to sweat much. Profuse and excessive sweating. Applied, also, to a miliary eruption with which children are sometimes affected.

DETEN'TIA. Catalepsy.

DETER'GENTS. From *detergere*, to cleanse. Medicines which cleanse ulcers or foul wounds.

DETERMINA'TION. The afflux of blood or other humors in a part, causing congestion.

DETERSIVE OPIATE FOR THE TEETH, MAURY'S. ℞.—Fine honey, ℔ ij; calcined alum, ʒ ij; extract of bark, ʒ i; essential oil of peppermint, ʒ ss; essential oil of cinnamon, ʒ ss; spirit of amber, musk rose, ʒ ij. Reduce the honey by boiling down to one-third; color it with alcanet; mix the bark into it; strain through a fine sieve, and when nearly cold, incorporate the alum with it, but do not add the essential oils until it is entirely cold.

DETONA'TION. Explosion.

DETONATING POWDER. Fulminating mercury and silver, and other compounds which explode suddenly on being struck or heated. They are used for igniting powder in percussion locks.

DETRAC'TOR. From *detraho*, to draw. Applied to muscles which draw the parts to which they are attached from some other part.

DETRI'TUS. From *deterere*, to bruise or wear out. The inorganic remains of a disorganized organic texture.

DETRU'SOR URI'NÆ. From *detrudere*, to thrust out. The muscular coat of the bladder, which, by contracting, causes the expulsion of the urine.

DEUTEROPATHI'A. *Morbus secondarius;* from δευτερος, the second, and παθος, disease. A sympathetic affection, or secondary disease.

DEUTO. From δευτερος, second. A prefix, denoting two, twice, or double, as deutoxyd, having two equivalents of oxygen. The second oxyd.

DEVAUT. Author of an Essay on the Nature and Formation of the Teeth, published at Paris, 1826.

DEVEL'OPMENT. In *Physiology*, increase; growth.

DEVIA'TION. *Deviatio;* from *de*, from, and *via*, the way. Vicious curvature of the spine, or other bones; a faulty direction or position of one or more teeth, &c.

DEXOCARD'IA. From δεξιος, right, and καρδια, the heart. The beating of the heart on the right side, as in pleurisy and pneumothorax.

DEXTRINE. From *dexter*, right-handed; so called from its possessing the power of reflecting the rays in the polarization of light toward the right hand. A gummy substance obtained from starch. It also exists abundantly in plants.

DI. A prefix from δις, twice, used in anatomy, chemistry, &c. Hence *digastricus, dioxyd, dichloride*, &c.

DIA. A prefix from δια, through. In *Composition*, extension, perversion, separation. It was anciently used to signify the presence of an ingredient before which it was written, as *diacydonium*, a medicine containing the quince, &c.

DIABE'TES. From δια, through, and βαινω, I pass. A disease attended by immoderate secretion of urine, excessive thirst, and gradual emaciation. It is divided into three species: 1. *Diabetes insipidus*, characterized by a superabundant discharge of limpid urine, having the usual urinary taste. 2. *Diabetes mellitus*, in which there is an excessive secretion of urine, of a sweetish taste, and containing a considerable quantity of saccharine matter, and 3. *Diabetes chylosus*, in which there is a copious secretion of urine, of a whitish color.

DIABRO'SIS. Erosion.

DIACATHOL'ICON. *Diacatholicum;* from δια, and καθολικος, universal, so called from its general usefulness. A purgative electuary, composed of senna leaves, the pulp of cassia, root of polypody, tamarinds, rhubarb, violets, aniseed, sweet fennel, liquorice and sugar.

DIACAU'SIS. From διακαιω, I burn. Excessive heat.

DIACAUS'TIC. *Diacausticus.* Caustic by refraction, as a double convex lens, or as it is sometimes called, a burning glass.

DIACHALCIT'EOS. From δια, and χαλκιτις, chalcitis or calcothar. A plaster consisting of a mixture of oil and calcothar.

DIACHRISIS. Inunction.

DIACH'YLON. *Diachylum;* from δια, and χυλος, juice; i. e. composed of juices. Formerly, an emollient plaster made of certain juices, but at present the term is only applied to the *emplastrum plumbi*, or lead plaster.

DIACHYLON CUM GUMMI. Yellow diachylon, Gum diachylon.

DIACHYLON SIMPLEX. The emplastrum plumbi.

DIACINE'MA. From δια, and κινεω, I move. A subluxation.

DIACLYS'MA, From διακλυζω, to wash out. A gargle; a mouth-wash.

DIA'COPE. *Diacomma.* Abscission; a deep wound, or cut.

DIA'CRISES. From δια, and κρινω, I separate. A class of diseases characterized by a vitiated state of the secretions.

DIADERMIATRI'A. From δια, δερμα, the skin, and ιατρεια, healing. The endermic method of treating disease. See Endermic.

DIADEX'IS. From διαδεχομαι, I transfer. I succeed to. The transformation of one disease into another of a different character and seat.

DIAD'OSIS. From διαδιδωμαι, to distribute. Distribution of nutritive matter throughout the whole body; nutrition; the cessation of disease.

DIÆ'RESIS. From διαιρεω, I divide or separate. A solution of continuity, as a wound or ulcer, or as in the case of a surgical operation, consisting in the division of some part of the body.

DIÆRETICUS. From διαιρεω, I divide. Caustic; escharotic.

DIÆTA. *Diætema;* from διαιταω, I nourish. Diet; aliment.

DIAGNO'SIS. From δια, and γινοσκω, I know. The art of discriminating a disease by its symptoms, and one disease from another.

DIAGNOS'TIC. A pathognomic sign, or symptom, which is characteristic of a disease.

DIAL'YSIS. From διαλυω, to dissolve. Weakness of the limbs.

DIAMASTE'MA. Masticatory.

DI'AMOND. *Adamas;* from α, priv. and δαμαω, I conquer, from its extreme hardness. The most valuable of precious stones, and the hardest known substance. It was formerly supposed to possess valuable medicinal virtues.

DIAMOTO'SIS. From μοτος, charpie, lint. The introduction of lint into a wound or ulcer.

DIANANCAS'MOS. *Dianancasmus;* from δια, and αναγχαζω, I force. The reduction of a dislocated or fractured limb.

DIAN'DRIA. *Diandrous;* from δις, twice, and ανηρ, a man. A class of plants with two stamens.

DIAN'THUS CARYOPHYL'LUS. The clove pink.

DIAPAL'MA. A plaster composed of litharge, olive oil, axunge, water, sulphate of zinc and white wax, and when mixed with a fourth of its weight of olive oil, it forms the *cerate of diapalma.*

DIAPAS'MA. From διαπασσειν, to sprinkle. A medicine reduced to powder and sprinkled over the whole, or some part of the body.

DIAPEDE'SIS. From διαπηδαω, I leap through. Transudation or escape of blood through the coats of the vessels, skin, or any membrane.

DIA'PHANOUS. *Diaphanosus;* from δια, through, and φαινω, to shine. Transparent. In *Anatomy*, applied to delicate serous membranes, as the arachnoid.

DIAPHORE'SIS. From διαφορεω, I convey, I dissipate. A perspiration more profuse than natural.

DIAPHORET'IC. Medicines which excite perspiration.

DI'APHRAGM. *Diaphragma;* διαφρασσω, to separate by a partition. The midriff. A thin, almost circular muscle, tendinous in the centre, which separates the thorax from the abdomen.

Diaphragma Cerebri. The tentorium.

Diaphragma Narium. The septum narium.

DIAPHRAGMAL'GIA. Pain in the diaphragm.

DIAPHRAGMAT'IC. *Diaphragmaticus.* Belonging to the diaphragm; applied to several vessels and nerves.

Diaphragmatic Arteries. *Phrenic arteries.* The arteries of the diaphragm.

Diaphragmatic Hernia. Protrusion of some of the abdominal viscera through a rupture of the diaphragm.

Diaphragmatic Nerves. See Phrenic Nerves.

Diaphragmatic Plex'uses. There are two in number; one situated on the right, and the other on the left side of the diaphragm.

Diaphragmatic Ring. An aperture through the diaphragm, giving passage to the vena cava ascendens.

DIAPHRAGMATI'TIS. Inflammation of the diaphragm.

DIAPH'THORA. From δια, and φθειρειν, to corrupt. Corruption of any part.

DIAPH'YSIS. From διαφυω, I rise between. An interspace. Any thing which separates two bodies. It is sometimes applied to the middle part of a long bone, and to the crucial ligaments.

DIAPYE'MA. *Diapyesis;* from δια, and πυον, pus. Suppuration.

DIAPYET'IC. *Diapyeticus;* from διαπυημα, a suppuration. Medicines which promote suppuration.

DIARHÆ'MIA. From δια, through, ρεω, I flow, and αιμα, blood. Thinness of the blood from deficiency of the globules, and as a consequence, transudation of it through the coats of the vessels.

DIARRHAGE. A fracture.

DIARRHŒ'A. From δια, through, and ρεω, I flow. Purging, looseness of the bowels, frequent liquid alvine evacuations, usually attended with slight griping pains, but ordinarily without any fever. There are several varieties of diarrhœa, as the bilious, serous, mucous, &c.

Diarrhœa Alba. *Diarrhœa cœliaca.* Diarrhœa, with white, milky evacuations.

Diarrhœa Cholerica. A diarrhœa in which the alvine evacuations are loose, copious and of a yellow color.

Diarrhœa Serosa. A diarrhœa in which the alvine evacuations are of a watery or serous character.

Diarrhœa Verminosa. A diarrhœa

caused by the presence of worms in the intestines, especially in the rectum.

DIARTHRO DIAL. Relating to diarthrosis.

DIARTHRO'SIS. From διαρθροω, I articulate. A movable articulation of bones, in which there are five species; namely, *enerthrosis, arthrodia, ginglymus, trochoides* and *amphiarthrosis.*

DIASCOR'DIUM. From δια, and σκορδιον, the water germander; so called because scordium enters into its composition. An electuary.

DIASPHYX'IS. The pulse.

DIASTASÆ'MIA. From διαστασις, separation. and αιμα, blood. Disorganization of the globules of the blood, and separation of the fibrin and albumen from the coloring matter.

DIASTASE. A vegetable principle having the property of converting starch into dextrine and grape sugar. It is the principal agent in the germination of seeds, and is produced when they sprout.

DIAS'TASIS. From δια, and ιστημι, to place, separation, distance. Separation of bones and cartilages from each other, as of those of the cranium in some cases of hydrocephalus, &c.

DIAS'TOLE. From διαστελλω, I send, I dilate, I open. Dilatation of the heart and arteries when the blood enters them. It is immediately followed by contraction, which sends forth the blood, and this latter movement is called *systole.*

DIAS'TOLIC. Relating to diastole, as the diastolic action of the heart.

DIASTOMO'TRIS. From διαστομοω, I dilate an aperture. Any dilating instrument, as a speculum for the mouth, &c.

DIASTREM'MA. Distortion, or sprain.

DIASTROPHE. Diastremma.

DIA'TASIS. From διατεινο, I distend. The reduction of a fractured limb, by extension and counter extension.

DIATH'ESIS. From διατιθημι, I dispose. Disposition, constitution; predisposition to certain diseases. The most common diatheses are the *scrofulous, scorbutic, rheumatic, gouty, cancerous, calculous* and *nervous.*

DIATRI'TOS. From δια, and τρεις, three. Diet of three days. The plan pursued by the methodic physicians in the treatment of disease.

DIAZOS'TER. From διαζωννυμι, I surround. The twelfth vertebra of the back, because it corresponds to the girdle.

DICEPH'ALUS. From δι, double, and κεφαλη, head. Having two heads.

DICERAS RUDE. An intestinal worm.

DICHOPHY'IA. From διχα, double, and φυω, I grow. That condition of the hairs in which they split and grow forked.

DI'CROTUS. From δις, twice, and κρουω, I strike. A pulse which seems to beat double, or twice as fast as usual.

DICTAM'NUS ALBUS. White fraxinella, or bastard dittany.

Dictamnus Creticus. See Origanum Dictamnus.

DIDYMITIS. Hernia humoralis.

DIES. A day.

Dies Critici. Critical days, or days on which it was formerly supposed a favorable or unfavorable change would take place in the progress of a disease.

DIET. *Diæta.* Food, such as is most conducive to health and its preservation. It was formerly used to denote the general manner of living, comprehending every thing necessary for the sustenance of life.

Diet Drink. A decoction used for the purpose of purifying the blood. The decoction of sarsaparilla and mezereon, the Lisbon diet drink, is the most celebrated.

DIETET'IC. *Dieteticus;* from διαιταω, I nourish. Belonging to diet.

DIETET'ICS. *Dietitica.* Dieting according to medical rules.

DIETET'ISTS. Physicians who treat disease only by the application of dietetic rules.

DIFFLA'TIO. Transpiration.

DIFFRAC'TION. An inflexion which the rays of light undergo in passing near any opaque body.

DIFFU'SIBLE. Stimulants which augment the action of the vascular and nervous system, but which are transitory in their effects.

DIGASTRIC GROOVE. A depression in the mastoid process from which the digastric muscle arises.

DIGAS'TRICUS. From δις, and γαστηρ, a belly. A muscle with two bellies, united in the middle by a tendon which passes through the stylo-hyoid muscle, and is attached to the hyoid bone. Of the two bellies, the one is posterior, and occupies the fossa at the end of the mastoid process of the temporal bone—the other is anterior, extending from the os hyoides to the base of the lower jaw by the side of the symphysis. Its use is to depress the lower jaw, or to raise the os hyoides, or to move it forwards and backwards, as in deglutition.

DIGE'RENTS. From *digero*, to digest. Digestives; medicines which promote the secretion of proper pus in wounds and ulcers.

DIGES'TIBLE. Capable of being digested.

DIGES'TION. *Digestio;* from *digere*, to dissolve. In *Physiology*, the change which food undergoes on being taken into the body. In *Chemistry* and *Pharmacy*, an operation which consists in subjecting substances to the action of each other, at a slightly elevated temperature, as a solid to water, alcohol, or other menstruum.

DIGES'TIVES. In *Surgery*, substances, which, when applied to a wound or ulcer, promote suppuration.

Digestive Tube. The alimentary canal.

DIG'ITAL. From *digitus*, a finger. Belonging to, or resembling a finger.

DIGITA'LINE. *Digitalina.* The active principle of digitalis.

DIGITA'LIS. From *digitus*, a finger, because its flower resembles a finger. Digitalis purpurea. Foxglove. The leaves of this plant are powerfully sedative and diuretic, and requires to be administered with great caution.

DIGITA'TION. Finger-shaped. Applied to muscles, as the *serratus magnus*, which exhibit digitations.

DIGITA'TUS. Digitate; fingered.

DIGIT'IUM. Atrophy of the fingers.

DIG'ITUS. A finger.

Digitus Annularis. The annular, or ring finger.

Digitus Indicatorius. The index finger.

Digitus Pedis. A toe.

DIGNO'TIO. Diagnosis.

DILATA'TION. *Dilatatio;* from *dilatare*, to enlarge. Increase of bulk by a separation of some of its molecules. Increase of the size of a canal or opening.

DILA'TOR. In *Anatomy*, applied to muscles, the office of which is, to dilate certain parts. In *Surgery*, an instrument for dilating a natural or artificial opening.

Dilator, Arnott's. An instrument for removing strictures of, and dilating, the urethra.

DILL. Anethum graveolens.

DILUENTS. *Diluentia;* from *diluo*, to wash away. Medicines which increase the fluidity of the blood, and other liquids of the body.

DIN'ICA. From δινεω, I turn round. Medicines which relieve vertigo.

DINOS. Vertigo.

DI'ODON. From δις, and οδους, a tooth; two-toothed. A genus of plectognathic fishes with jaws undivided, and each having a single and continuous dental plate.

DIODONCEPH'ALUS. From δις, double, οδους, tooth, and κεφαλη, head. A monstrosity with two rows of teeth.

DIONCO'SIS. From δια, and ογκος, a tumor. Tumefaction or plethora.

DIONYSIS'CUS. One who has a bony or horn-like excrescence near the temporal or frontal region.

DIOP'TRA. From διοπτομαι, to see

through. Dioptron. A speculum; a dilator.

DIOPTRIS'MUS. The dilation of a part or opening with a speculum.

DIORTHO'SIS. From διορθροω, to direct. The reduction of a fracture or dislocation.

DIOS'MA CRENA'TA. From διος, divine, and οσμη, odor. Barosma crenata, a South African plant.

DIOXYD. A compound of oxygen with a base, in which there is one atom of the former, and two of the latter.

DIPHTHERI'TIS. *Diphtheria;* from διφθερα, a skin or membrane. Angina pellicularis. A name given by M. Bretonneau to a form of pharyngitis, attended by the formation of false membranes.

DIPHTHRITIS TRACHEALIS. Croup.

DIPHYLLUS. Two-leaved.

DIPLASIAS'MUS. Duplicated. Re-exacerbation of a disease.

DIP'LOÉ. From διπλοω, I double. The cancellated structure which separates the two tables of the skull.

DIPLOGAN'GLIATA. Applied by Dr. Grant to articulated animals, because of the increased size of their ganglionic knots.

DIPLOGEN'ESIS. From διπλοος, double, and γενεσις, generation. Organic defect, caused by the union of two germs.

DIPLO'MA. An instrument of writing conferring some privilege. In *Medical* affairs, a license to practice physic, or some one or more of its branches; usually applied to a document issued by a chartered college, certifying that the title of doctor has been conferred upon the person who has received it. In *Pharmacy*, a vessel with double walls, as a water-bath.

DIPLONEU'RANS. Applied to vertebrate animals, because they have two nervous systems, the spinal and sympathetic. Also, by Dr. Grant to an order of worms.

DIPLO'PIA. From διπλοος, double, and οπτομαι, I see. An affection of the sight, in which an object makes a double impression upon the retina. Double vision.

DIPLOSIS. Diploë.

DIPLOSO'MA. From διπλοος, double, and σωμα, body. The diplosoma crenata, is an entozoon, having the appearance of two worms united, which has sometimes been known to pass the urinary bladder.

DIPROSO'PUS. From δις, double, and προσωπον, countenance. A monster with two faces.

DIP'SACUS SYLVES'TRIS. From διψα, thirst, because the leaves are so arranged as to hold water. Cultivated teasel.

DIPSACUS FULLO'NUM. Fuller's teasel.

DIPSET'ICUS. From διψα, thirst. Productive of thirst.

DIPSOMAN'IA. From διψα, thirst, and μανια, madness. The thirst of drunkards. Also, delirium tremens.

DIPSO'SIS. Morbid thirst.

DIP'TERA. From δις, twice, and πτερον, a wing. Insects which have two wings.

DIPTERA'CEÆ. A natural order of dicotyledonous trees, peculiar to India, and the Indian Archipelago, distinguished by the petals not being fringed, and want of albumen.

DIP'TEREX ODORATA. A tree found in Guiana, which yields an odoriferous bean, called the Tonquin bean.

DIP'TEROUS. Having two wing-like appendages.

DIRC'A PAULUS'TRIS. Leatherwood. A small indigenous shrub, which grows in wet boggy places, in many parts of the United States.

DIREC'TOR. From *dirigere*, to direct. A grooved sound for guiding a knife in some surgical operations.

DIRT-EATING. A disorder of the nutritive functions common among African negroes, in which the desire for eating dirt is irresistible, and producing the cachexia Africana.

DISCHARGE. In *Pathology*, in-

creased discharge from any secreting organ or part.

DISCOLORA'TION OF THE TEETH. The teeth often lose their natural whiteness and peculiar brilliancy, and assume a yellowish, brown, greenish, or black appearance, and instead of exciting admiration, become objects of disgust. Any of these changes may take place at any period of life, by the exposure of the teeth to the action of the causes that produce them, and from want of proper attention to their cleanliness. Discoloration of the teeth may be produced by the action of the mucous fluids of the mouth, or by the habitual use of substances containing coloring matter, as tobacco, &c. and if permitted to continue until the thirtieth year of age, when occasioned by the latter, can never be removed. But, when dependent upon the chemical action of the former, or is the result, simply, of an accumulation of viscid and discolored mucus, the teeth may be restored to their natural color. The treatment in cases of this sort should accord both with the local and constitutional indications.

DISCREET'. *Discretus.* Distinct, separate. Applied to exanthemata, in which the eruptions or pustules are not confluent, but are distinct and separate from each other.

DISCU'TIENTS. *Discutientia; discussoria;* from *discutere,* to shake apart. Applied to substances which have the power of repelling or resolving tumors.

DISEASE. According to Chomel, a perceptible disorder occurring either in the material disposition of the parts composing the living body, or in the exercise of its functions.

DISECOI'A. Deafness.

DISFIGURA'TION. Deformation.

DISGORGE'MENT. The opposite of engorgement. Act of disgorging, or discharging any fluid previously collected in a part or viscus, as the disgorgement of bile, or a portion of the contents of the stomach, as in vomiting.

DISGUST. A loathing of food; a mental repugnance to any thing.

DISINFECT'ANTS. Agents which destroy or neutralize morbid effluvia, and also, according to Prof. Dungleson, agents capable of removing a septic condition of the body, or any part of it.

DISINFECTING LIQUID, LABARRAQUE'S. A solution of the chloride of soda.

DISINFEC'TION. *Disinfectio.* The act of neutralizing or destroying the contagious miasmata with which the air or clothing may be affected.

DISLOCA'TION. *Dislocatio.* Luxation. Displacement of the articular extremity of a bone.

DISORGANIZA'TION. A morbid change in the structure of an organ, or even total destruction of its texture, as in the case of sphacelus, and some kinds of ulcers.

DISPEN'SARY. *Dispensarium;*—from *dispendere,* to distribute. A place where medicines are prepared; also, a place where the poor are furnished with advice and the necessary medicines.

DISPEN'SATORY. *Dispensatorium.* A book which treats of the properties and composition of medicines.

DISPLACE'MENT. See Percolation.

DISPOSI'TION. *Dispositio;* from *dis,* and *ponere,* to put or set. In *Anatomy,* a particular arrangement, or mutual relations of different parts. In *Pathology,* it is synonymous with diathesis, but has a more extensive signification.

DISSECT'ING ABSCESS. An abscess which insinuates itself between muscles, separating them from each other.

Dissecting Aneurism. An aneurism in which the inner and middle coats of the artery are ruptured, and the blood passes between them and the outer coat.

DISSEC'TION. *Dissectio;* from *dissecare,* to cut asunder. The cutting to

pieces of a dead body for the purpose of exposing the different parts and examining their structure, or cutting to pieces any part of an animal or vegetable for this purpose.

DISSEC'TOR. *Prosector.* A practical anatomist. One who cuts to pieces a dead body for the purpose of examining the structure and arrangement of its different parts, or for an anatomical lecture.

DISSOLU'TION. *Dissolutio;* from *dissolvere,* to loosen, to melt. In *Humoral Pathology,* a diminution of the consistence of the blood. Also, death.

DISSOL'VENT. *Dissolvens;* from *dissolvere,* to loosen. Medicines which are supposed to be capable of dissolving morbid concretions, swellings, &c. Also, a menstruum.

DISTEN'TION. *Distentio;* from *distendere,* to stretch out. Dilatation.

DISTICHI'ASIS. From δις, double, στιχος, a row. Increased number of eyelashes, with some turning in, irritating the eye, while the others retain their proper places, and form, with the first, two rows.

DISTILLA'TION. *Distillatio;* from *distillare,* to drop little by little. The separation by the aid of heat the volatile from the fixed parts of bodies. The operation is effected in a retort or still.

DIS'TOMA. From δις, and στομα, a mouth. Having two mouths. A genus of worms.

Distoma Hepat'icum. *Fasciola hepatica.* The liver fluke. A small flat worm, about an inch in length, and nearly an inch in width, sometimes found in the gall ducts of man.

DISTOR'TION. *Distorsio;* from *distorquere,* to wrest aside. Deformity of parts, as a preternatural curvature of a bone, curved spine, &c. Also, contraction of the muscles, as in strabismus, &c.

DISTORTOR ORIS. The zygomaticus minor.

DISTRIX. From δις, double, ζριξ, the hair. A morbid condition of the hair, characterized by splitting at their extremities.

DITRACHYC'ERAS. From δις, two, τραχυς, rough, and κερας, horn. A genus of intestinal worms. The *ditrachyceras rudis, or diceras rude.*

DITTANY. *Dictamnus albus.* A plant, the root of which was formerly used as a tonic.

DIURE'SIS. From δια, through or by, and ουρεω, I pass the urine. Abundant excretion of urine.

DIURET'IC. *Diureticus.* A medicine which increases the secretion of urine.

DIVARICATION. The separation of two things previously united.

DIVARICATE. Standing wide apart; to diverge at an obtuse angle, as do sometimes the roots of a molar tooth.

DIVER'GENT. Diverging, receding from each other.

DIVERSO'RIUM CHYLI. The receptaculum chyli.

DIVERTIC'ULUM. A turning; from *divertere,* to turn aside. Any receptacle capable of holding a more than ordinary quantity of blood, for temporary purposes, when the circulation is obstructed, serves as a diverticulum. Also, a hollow appendage attached to, and communicating with the intestinal canal, or any hole to get out of, or by-passage.

Diverticulum Nuck'ii. An opening on each side through which the round ligament of the uterus passes.

Diverticulum Chyli. The receptaculum chyli.

DIVID'ING. That which separates.

Dividing Bandage. A bandage used to keep parts separated from each other, and preventing unnatural adhesions.

DIVUL'SIO. In *Surgery,* a rupture or laceration caused by external violence.

Divul'sio Uri'næ. Urine which has a cloudy appearance.

DIZZINESS. Vertigo.

DOCH'ME. A Greek measure equal to the breadth of about four fingers.

DOCIMA'SIA. From δοκιμαζω, ex-

amining into the goodness or fitness of any thing; to verify. Applied to the art of examining fossils, for the purpose of discovering what metals, &c. they contain.

DOCIMASIA PULMO'NUM. The examination of the respiratory organs of a new born child for the purpose of ascertaining whether it had breathed after birth.

DOCK. Rumex.

DOCTOR. From *doctus*, learned. A title commonly applied to a practitioner of medicine, but properly confined to one who has received from a regularly chartered institution or college the degree of doctor of medicine, or doctor of dental surgery. The power for conferring the latter degree was first invested in the Baltimore College of Dental Surgery, by the legislature of the state of Maryland, in an act of incorporation, granted in 1840, and conferred for the first time, at the first annual commencement of this institution, on the 9th of March, 1841.

DOCTRINE. In *Medicine*, the theory or principles of any medical sect, teacher, or writer.

DODDER OF THYME. A parasitical plant, possessing a strong, unpleasant smell, and pungent taste.

DODECAN'DRIA. *Dodecandrous;* from δωδεκα, twelve, and ανηρ, a man. A class of hermaphrodite plants having twelve stamens.

DODECA'HEDRON. A solid of twelve sides; a form frequently met with in crystals.

DOG-CHOKE. Cynanche.

DOG-DAYS. *Dies caniculares.* The days comprised between the 24th of July and the 23d of August are so called, because the dog-star, Sirius, rises and sets, at this time, with the sun.

DOGMAT'ISTS. From δογμα, a doctrine. A sect of ancient physicians, who founded their practice upon conclusions drawn from certain theoretical inferences.

DOL'ICHOS. From δολιχος, long. A genus of plants of the luguminous family, including a number of species.

DOLICHOS PRU'RIENS. Cow-hage. The pods are covered with stiff hairs, called dollichi pubes, which are used in medicine as an anthilmintic. When applied to the skin, they excite an intolerable prurient sensation.

DOLO'MITE. A magnesian limestone.

DOLOR. Pain.

DOMESTIC MEDICINE. Medicine as practiced by unprofessional individuals in their own families. Also, applied to treatises written for the purpose of enabling unprofessional persons to treat diseases, when the services of a regular physician cannot be procured.

DORE'MA AMMONIACUM. The plant which yields ammoniacum.

DORON'ICUM GERMANICUM. *Arnica montana.* Leopard's bane.

DORONICUM PARDALIAN'CHES. *Doronicum romanum.* Roman leopard's bane.

DORSAL. *Dorsalis;* from *dorsum*, the back. Relating to the back, or the back of any organ.

DORSE. A fish which yields some portion of the cod-liver oil. The *gadus callarias.*

DORSO-COSTALIS. The serratus posticus superior muscle.

DORSO-SUPRA ACROMIA'NUS. The trapezius muscle.

DORSO-TRACHEALIA'NUS. The splenius colli muscle.

DORSTENIA BRAZILIENSIS.—*Caa-apia.* The root is emetic and antidiarrhœic.

DORSTENIA CONTRAYER'VA. Contrayerva. The root has a pleasant aromatic smell, and a rough, bitter and penetrating taste.

DORSUM. The back. The posterior part of the trunk. The vertebral column. The back of any part, as the *dorsum pedis*, back of the foot; *dorsum manûs*, back of the hand, &c.

DOSAGE. Applied to an analysis in which the regent is added in measured quantities, from a graduated tube, to a measured and weighed solution of the assay.

DOSE. *Dosis;* from διδωμι, to give. The amount of medicine to be given at one time for producing a desired effect.

DOSIS. A dose.

DOTAGE. Dementia.

DOTHINENTERI'TIS. From δοθιην, a boil, and εντερον, an intestine. Inflammation and enlargement of the glands of Peyer and Brunner, and supposed by Bretonneau to be the cause of the symptoms which constitute a large class of fevers.

DOUBLE-HEARING. Sounds heard doubly.

Double Wedge. An instrument invented by Dr. Elliot, of Montreal, for removing an artificial crown from the root of a tooth upon which it has been set.

DOU'CHE. The shock produced by a dash of water, or other fluid, upon the body.

DOULEUR. Pain.

Douleur des Dents. Pain in the teeth. See Odontalgia.

DOVER'S POWDER. Pulvis ipecacuanhæ; opium and sulphate of potassæ.

DOWNING, RICHARD. Author of a Popular Essay on the Structure, Formation, and Management of the Teeth, published at London, 1815.

DRACÆ'NA DRACO. The dragon tree.

DRACHM. *Drachma.* An eighth of an ounce, or 60 grains.

DRACO. Δραχων, the dragon. A fabulous serpent with wings and feet.

Draco Mitigatus. Calomel; hydrargyri submurias.

Draco Sylvestris. Sneezewort, or bastard pellitory.

DRACOCEPH'ALUM CANARIEN'SE. Turkey balsam; Canary balsam; balm of Gilead tree.

DRACONIS SANGUIS. Dragon's blood.

DRACON'TIUM FŒTIDUM.—Skunk cabbage. A plant which exhales a very fetid odor.

DRACUNCULUS. Dracontium. Also, the Guinea worm.

DRAGACANTHA. *Dragant gum. Dragantin.* Tragacanth gum.

DRAGON'S BLOOD. *Sanguis draconis.* A concrete resinous substance, of a blood-red color, used in varnishes, and sometimes in dentifrices.

DRA'KENA. Dorstenia contrayerva.

DRASTIC. *Drasticus; cenotic;* from δραω, I operate strongly. Generally applied to purgatives which operate powerfully.

DRAUGHT. A sufficient quantity of fluid medicine for a dose.

DRAW-BENCH. A bench for drawing wire, so constructed as to confine a wire plate at one end, with a roller and windlass at the other for drawing the wire through the plate. It is used in the mechanical laboratory of the dentist.

DREAM. Somnus. Imaginary transactions which occupy the mind during sleep.

DREGS. Feculence.

DRESSER. A surgeon's assistant, who applies the dressings in a hospital.

DRESSING. The proper application of bandages, plasters and apparatus to a diseased part.

DRESSINGS. The bandages, plasters and apparatus used in dressing a diseased part.

DRILL. A small steel instrument, either with a flat point or a burr at the end, sometimes used by dentists in the removal of caries from a tooth preparatory to filling, or in their mechanical laboratory.

Drill-Bow. A bow and string for moving a drill-stock, which it does by passing the string around it, and moving it backwards and forwards.

Drill, Burr. An instrument used in dental surgery for the removal of caries of the teeth, and enlarging the canal in the root of a tooth preparatory to the application of an artificial crown. It consists of a small steel stem attached to a handle, or so constructed as to be introduced into a socket-handle, or socket

of a drill-stock, with a bulb at the other extremity, with a surface like that of a coarse single-cut file.

DRILL, FLAT. A small steel stem, fitted to a socket in a handle, or drill-stock, with the other extremity flattened and presenting a sharp, triangular shaped point.

DRILL-STOCK. An instrument for holding and turning a drill, moved either with the thumb and finger, or with a string and bow.

DRILL-STOCK, LEWIS'. A very beautiful and ingeniously contrived instrument for drilling into a molar tooth. It is so constructed that a drill may be worked in it in any direction from a line with the handle or shaft, to a parallel with the same, though not with sufficient convenience to the operator to render it of much practical utility.

DRILL-STOCK, McDOWELL'S. A drill-stock upon the principle of the helix lever, the drill being inserted at the end of the screw, is moved by means of a female screw attached to the handle of the instrument. It is so arranged that drills pointing in three different directions may be worked in it.

DRIMYPHA'GIA. From δριμυς, acrid, and φαγω, I eat. An exciting diet.

DRINK. Every fluid introduced into the stomach for the purpose of allaying thirst, diluting the alimentary mass, and repairing the losses which the fluids of the body are constantly experiencing.

DROP. Gutta. So much of any liquid, as co-heres together when poured slowly from a vessel. It, however, varies in volume and weight, according to the nature of the liquid and the size of the orifice or mouth of the vessel from which it is poured. In *Pharmacy*, it is generally estimated at one grain.

DROPS. Certain liquid medicines.

DROPS, ANODYNE. A solution of acetate of morphia.

DROPSICAL. Affected with dropsy.

DROPSY. See Hydrops.

DROPSY OF THE BELLY. See Ascites.

DROPSY OF THE CHEST. Hydrothorax.

DROPSY OF THE EYE. Hydrophthalmia.

DROPSY OF THE PERICARDIUM.—Hydropericardium.

DROPSY OF THE SKIN. Anasarca.

DROPSY OF THE TESTICLE. Hydrocele.

DROSE'RA ROTUNDIFO'LIA. The sun-dew, a plant which has a bitter, acrid and caustic taste.

DROSOM'ETER. An instrument for ascertaining the amount of dew falling at any time.

DROUIN. Author of a Treatise on the Diseases of the Teeth, published at Strasburg, 1761.

DRUG. A simple medicine.

DRUGGIST. One who sells drugs.

DRUM OF THE EAR. The tympanum.

DRUNKEN'NESS. Intoxication; ebriety. The habitual use of intoxicating liquors, is attended by loss of appetite, restlessness, tremulous motion, delirium tremens, &c.

DRYOBA'LANOPS CAMPHORA. The name of a tree of the Eastern Archipelago, which, by incision, yields the camphor oil, and the trunks often contain the concrete camphor.

DUBOIS. Author of a Treatise on the Hygiene of the Teeth, or an analysis of the means necessary for the preservation of the teeth and gums, published at Paris, 1823.

DUBOIS-FOUCOU. Author of an Exposition of New Methods for the Manufacture of Composition Teeth, published at Paris, 1808.

DUCHMIN. Author of a paper upon Caries of the Milk Teeth, published 1759.

DUCT. See Ductus.

DUCTIL'ITY. From *duco*, I draw. A property possessed by certain bodies, which enables them to be drawn out, or elongated, without causing any interruption in their constituent particles. This property is peculiar to some met-

als, as gold, silver, lead, &c., under all temperatures. Gold may be drawn into wire of only the 4000th part of an inch in diameter, and it may be reduced, by passing it through rollers, to the 800th part of an inch in thickness.

DUCTOR. Director.

DUCTS, BILIARY. The ductus communis coledochus; the cystic and hepatic ducts.

Ducts of Bellini. The urinary canals of the kidneys.

DUCTUS. A canal, or duct.

Ductus Aquosi. The lymphatics.

Ductus Arteriosus. *Canalis arteriosus.* The arterial tube which forms a direct communication between the pulmonary artery and the aorta of the fetus. It becomes obliterated after birth.

Ductus Auris Palatinus. The Eustachian tube.

Ductus Bartholinian'us. From *Bartholin*, its discoverer. The duct of the sublinguial gland.

Ductus Communis Choledochus. The common excretory duct of the liver and gall-bladder.

Ductus Cysticus. The duct by which the bile regurgitates into the gall-bladder.

Ductus Ejaculatorius. A duct within the prostate gland, opening into the urethra.

Ductus Excretorius. An excretory duct.

Ductus Hepaticus. The hepatic duct.

Ductus Incisorius. A small canal leading from the foramen incisivum into the cavity of the nares.

Ductus Lachrymalis. The lachrymal duct.

Ductus Lactiferi. The excretory ducts of the glandular substance of the female breasts.

Ductus Nasalis. The ducts which convey the tears from the lachrymal sac to the nose.

Ductus Pancreat'icus. The pancreatic duct.

Ductus Stenonis. The Stenonian or parotid duct.

Ductus Thoracicus. The thoracic duct.

Ductus Urinæ. The ureter.

Ductus Veno'sus. *Canalis venosus.* A venous canal, forming in the fetus, a communication between the umbilical and left hepatic veins. It becomes obliterated after birth.

Ductus Warthonian'us. Called so after the name of its discoverer. The excretory duct of the submaxillary gland.

DUMBNESS. Mutitas.

DUNNING, E. J. Dissertation on Practical Dentistry, by, read before the American Society of Dental Surgeons, at their sixth annual meeting, and published in the American Journal of Dental Science, volume sixth.

DUODENI'TIS. Inflammation of the duodenum.

DUODE'NUM. From δωδεκα, twelve, and δακτυλος, a finger; so called, because it was supposed it did not exceed the breadth of twelve fingers. The first part of the intestinal canal.

DUPLICA'TION. *Duplicatio;* from *duo*, two, and *plicare*, to fold. Malformation, in which parts are doubled.

DU'PLICATURE. *Duplicatura;* from *duplex*, double, twofold. A reflection of a membrane upon itself.

DUPONT. Author of a Remedy for the Tooth-ache. Paris, 1633.

DU'RA MA'TER. *Dura meninx;* from *duras*, hard. A thick semitransparent, sero-fibrous membrane, of a pearly-white color, which invests the brain, lines the cranium, and contains the spinal marrow.

DURA'MEN. The heart wood of a tree.

DUROS. Hard.

DUTCH GOLD. An alloy of copper and zinc.

DUVAL, J. R. An eminent French dentist, and author of a number of well written Essays on the Teeth. First, of Accidents from the Extraction of Teeth; second, Reflections on Tooth-ache; third, the Youth's Dentist; fourth, Historical Researches on the Art of the Den-

tist; fifth, on Fistules of the Teeth; sixth, Natural Method of Directing Second Dentition; seventh, Supplement to last mentioned work; eighth, Mechanical Dentistry. These works were published between the years 1802, and 1828. Besides the above, Duval is the author of a number of other small works on the teeth.

DWARF. *Nanus.* An animal or plant, whose average height is greatly inferior to the species to which it belongs.

DWINELLE, W. H. Dissertation on Salivary Culculus, by, 1844.—Dissertation on the Preparation of a Cavity in a Tooth, preparatory to Plugging, by, 1846. Both of the above dissertations were published in the American Journal of Dental Science, the first, in volume fourth, and the second, in volume seventh. Dr. Dwinelle, is also one of the editors of the above named periodical, beginning with the eighth volume.

DYNAM'IC. *Dynamicus;* from δυναμις, strength, power. In *Mechanics*, the investigation of the powers whereby bodies are put in motion. In *Biology*, that which relates to the vital forces, increased action or force, and used in contra-distinction to *adynamic*. In *Pathology*, synonymous with *sthenic*.

DYNAM'ICS. The science of motion; or a treatise on the laws and results of motion.

DYNAMOM'ETER. An instrument for measuring the comparative muscular power of man and animals, or of man or animals at different periods, and in different conditions.

DYS. From δυς, difficult, faulty. Used as a prefix, and often signifies painful; in ordinary cases it implies negation, as *dysecœa*, want of hearing.

DYSÆSTHE'SIA. From δυς, with difficulty, and αισθανομαι, I feel. Diminished sensibility, or abolition of the senses.

DYSÆSTHE'SIÆ. A term, in *Nosology*, used to designate an order of diseases, the first in the class *debilitates*, characterized by an impairment or extension of one, or all, of the senses.

DYSCATABRO'SIS. Difficult deglutition.

DYSCATAPO'SIS. Difficulty of swallowing liquids.

DYSCHRŒ'A. From δυς, and χροα, color. Morbid change in the color of the skin.

DYSCINE'SIA. From δυς, with difficulty, and κινεω, I move. Loss or difficulty of motion, as in the case of rheumatism, or paralysis.

DYSCOPHO'SIS. From δυς, with difficulty, and κοφοω, I am deaf. Impairment of the sense of hearing.

DYSCO'RIA. From δυς, and κορη, the pupil. Irregularity of the pupil.

DYSCRA'SIA. From δυς, and κρασις, temperament. A bad temperament, or habit of body.

DYSECŒ'A. From δυς, and ακοη, hearing. Deafness; hard of hearing.

DYSEME'SIA. Painful and ineffectual efforts at vomiting.

DYS'ENTERY. *Dysenteria;* from δυς, with difficulty, and εντερον, intestine. Bloody flux, diarrhœa attended by excretion of blood. Inflammation of the large intestines, fever, and painful tenesmus. The stools are mostly mucous, sometimes streaked with blood, and mixed with hard substances, called scybala.

DYSGENNE'SIA. From δυς, and γενεσις, generation. Lesion of the functions or organs of generation.

DYSGEU'SIA. From δυς, and γευσις, taste. A morbid condition, or impairment, of the sense of taste.

DYSHÆMORRHŒ'A. From δυς, with difficulty, and αιμορροις, the piles. Difficulty in the hemorrhoidal flux.

DYSHAPH'IA. From δυς, and αφη, touch. Impairment of the sense of touch.

DYSHÆ'MIA. From δυς, and αιμα, blood. Depraved condition of the blood.

DYSHI'DRIA. From δυς, and ιδρως, sweat. Morbid condition of the perspiration.

DYSLALIA. From δυς, and λαλια, speech. Difficult or indistinct articulation of words.

DYSMASE'SIS. From δυς, and μασησις, mastication. Difficult mastication.

DYSMENORRHŒ'A. From δυς, and μηνορροια, the menses. Difficult, or retarded menstruation.

DYSMNE'SIA. From δυς, badly, μνησις, memory. Impaired or defective memory.

DYSO'DIA. Δυσωδια, fetor. Diseases attended with fetid emanations.

DYSODONTI'ASIS. From δυς, with difficulty, and οδοντιασις, dentition. Difficult dentition.

DYSO'PIA. From δυς, badly, and ωψ, an eye. Defective vision.

DYSOREX'IA. From δυς, with difficulty, and ορεξις, appetite. Depraved appetite.

DYSOS'MIA. From δυς, with difficulty, and οσμα, smell. Diminished sense of smell.

DYSOSPHRE'SIA. From δυς, with difficulty, and οσφρησις, the sense of smell. An impaired condition of the sense of smell.

DYSOSTO'SIS. From δυς, and οστεον, a bone. A faulty conformation, or diseased condition of bone.

DYSPEPSIA. From δυς, with difficulty, and πεπτο, I concoct. Indigestion. Weak or impaired digestion.

DYSPHA'GIA. From δυς, with difficulty, and φαγω, I eat. Difficult, or impeded deglutition.

Dysphagia Constric'ta. *Dysphagia pharyngea; dysphagia œsophagea.*— Stricture of the œsophagus, or pharynx.

DYSPHO'NIA. From δυς, badly, and φωνη, the voice. Alteration in the state of the voice; difficutly in the production and articulation of sounds.

DYSPNŒ'A. From δυς, with difficulty, and πνεω, I breathe. Difficult respiration; shortness of breath.

Dyspnœa Convulsiva. Asthma.

DYSTHET'ICA. From δυσθετικα, a bad state of body. A bad habit of body. The fourth order in the class *hæmatica* of Dr. Good, including cachexies.

DYSTHYM'IA. From δυς, bad, and θυμος, mind. Despondency of mind. Melancholy.

DYSU'RIA. From δυς, with difficulty, and ουρον, urine. Difficulty of voiding the urine.

E.

EAGLE-STONE. An old pharmaceutical term applied to globular clay, iron stone, called lapis ætites.

EAR. Auris. The organ of hearing, which is divided into *external*, comprehending the auricle, and meatus auditorius externus; *middle*, which includes the tympanum and its connections, and the *internal*, which includes the semicircular canals, cochlea, vestibule and whole labyrinth.

Ear Pick. A small scoop and probe used for the removal of hardened cerumen from the meatus auditorius externus.

Ear Trumpet. An instrument used by persons partially deaf for collecting and increasing the intensity of sound.

Ear-Wax. Cerumen.

Ear-Ache. Otalgia.

EARTH. In *Chemistry*, certain insoluble metallic oxyds, of which there are nine, namely, baryta, strontia, lime, magnesia, alumina, glucina, zirconia, yttria and thorina.

Earth, Aluminous. Alumina.

EARTH OF BONES. Phosphate of lime.

EARTH, BOLAR. Argillaceous earth of a pale but bright-red color. See Bole, Armenia.

EARTH, HEAVY. Baryta.

EARTH, JAPAN. See Acacia Catechu.

EARTH-WORM. Lumbricus terrestris.

EARTHS, ABSORBENT. Earths which have the property of neutralizing acids, as magnesia, chalk, &c.

EAU. Water.

EAU D'ARQUEBUSADE. A vulniary water formerly much used. It consists of alcohol distilled with various aromatic herbs.

EAU DE BELLOSTE. A compound of equal parts of muriatic acid, brandy and saffron, formerly used as a resolvent.

EAU DE BROCCHEIRI. A styptic, said to be a solution of creasote.

EAU DES CARMES. The name of a French preparation used as a stomachic and stimulant.

EAU DE COLOGNE. A perfumed spirit of lavender.

EAU DE JAVELLE. A solution of chloride of soda.

EAU DE LUCE. Succinated spirit of ammonia.

EAU DE NAPHRE. A water obtained by distillation from the leaves of the bitter orange.

EAU DE RABEL. *Aqua rabelii*. A mixture of concentrated sulphuric acid and alcohol.

EAU DE VIE. Brandy.

EBENACEÆ. *Diospyros ebenum*. The name of a family of plants allied to the ebony tree.

EBENUM. *Ebenus*. Ebony.

EBRIETY. Intoxication.

EBULLI'TION. *Ebullitio;* from *ebullio*, to bubble up. Boiling. The motion of a liquid by which it gives off bubbles of vapor, produced by heat or fermentation.

EBULUS. See Sambucus Ebulus.

EBUR. Ivory.

ECCATHAR'TIC. Cathartic.

ECCHELYSIS. Expectoration.

ECCHYLOMA. An extract.

ECCHYMO'MA. From εκ, out of, and χυμος, juice. Ecchymosis.

ECCHYMO'SIS. From εκχυω, to pour out. A black or blue spot, occasioned by an extravasation of blood.

ECCHYSIS. Effusion.

ECCLISIS. A luxation.

ECCOPROT'IC. *Eccoproticus;* from εξ, and κοπρος, excrement. Laxatives which simply remove the contents of the alimentary canal.

ECCRINOL'OGY. *Eccrinologia;* from εκκρινω, I separate, and λογος, a discourse. A treatise on the secretions.

EC'CRESIS. Excretion.

ECCRIT'ICA. Diseases of the excernent function.

EC'DORA, From εκ, and δερω, I flay. Excoriation.

EC'DORIUS. That which excoriates.

ECHETRO'SIS. White bryony.

ECHINA'TE, *Echinatus*. Bristly; set with small sharp points; prickly.

ECHINOPHTHAL'MIA. From εχινος, a hedge-hog, and οφθαλμια, an inflammation of the eye. Inflammation of the eyelids, characterized by projection of the eye-lashes.

ECHI'NOPS. From εχινος, hedge-hog, and ωψ, the appearance, so called from its resemblance to the hedge-hog. The globe-thistle.

ECHI'NUS. The hedge-hog; also, applied to the prominent points on the surface of the *pileus* of mushrooms.

ECHI'NUS MARINUS. The sea-urchin.

ECLEC'TICS. *Eclecticus;* from εκλεγω, I select. Writers who select from the various works, upon the same department of science, such doctrines as seem most conformable to truth.

EC'LYSIS. *Exsolutio;* from εκλυω, I loosen. Faintness; prostration of strength.

ECON'OMY. From οικος, a house, and νεμω, I rule. Literally, the management of household affairs. In *Animal Physiology*, the laws which govern the organization of animals.

ECPHYLY'SIS. Vesicular erup-

tion. A generic term, including *herpes, eczema, pompholyx* and *rupia.*

ECPHRAC'TIC. *Ecphracticus;* from εκφρασσω, to remove obstructions. Deobstruent.

ECPHRO'NIA. Insanity; melancholy.

ECPHY'MA. A cutaneous excrescence, as a wart, corn, physconia, &c.

ECPHYSE'SIS. From εκφυσαω, I breathe through. Hurried respiration, as of a person out of breath.

ECPIES'MA. From εκπιεζω, I compress. In *Surgery*, a fracture of the skull, with depression of the bone.

ECPYE'MA. From εκ, out of, and πυον, pus. Suppuration; an abscess; a collection of pus.

ECPYE'SIS. Suppurative diseases of the skin.

ECPYE'TIC. Suppurative; promoting suppuration.

ECREX'IS. Rupture; laceration.

ECRHYTH'MOS. From εκ, out of, ρυθμος, rhythm. Irregular. In *Pathology*, applied to the pulse.

EC'RYSIS. From εκρεω, I run from. A discharge.

ECSARCO'MA. From εκ, out of, and σαρξ, flesh. A fleshy excrescence or sarcoma.

EC'STASIS. From εξισταμαι, I am beside myself. An ecstacy. A total suspension of sensibility, voluntary movements, with retarded vital action.

EC'TASIS. Extension; expansion.

EC'THYMA. From εκθυω, I break out. A cutaneous eruption of large, round and distinct pustules, inflamed at their base. They are seldom numerous, and appear most frequently upon the extremities, neck and shoulders. Three species are noticed, namely, *ecthyma vulgare; ecthyma infantile* and *ecthyma luridum.*

ECTO'PIA. From εκτοπος, out of place. Displacement of any part. Luxation.

ECTRO'PIUM. From εκτρεπω, I evert. Eversion of the eyelids, so that the inner surface is turned out.

EC'ZEMA. From εκζεω, I boil out. Heat; eruption. A cutaneous eruption of small vesicles thickly crowded together, without any manifest inflammation.

ECZEMA MERCURIA'LE. *Eczema rubrum.* Eczema caused by the irritation of mercury.

ECZEMA OF THE FACE. This sometimes occurs in advanced age, and in young children.

EDENTA'TA. *Edentals.* The name of an order of mammals characterized by the absence of the incisor, and, generally, of the cuspid teeth.

EDEN'TULUS. *Edentatus;* from *e*, and *dens, dentis*, a tooth. Without teeth; one who never had teeth, or one who has lost his teeth. The most frequent causes which give rise to the loss of the teeth, are caries and chronic inflammation of the gums and alveolodental membranes. See Caries of the Teeth, and Gums, diseases of.

Although it is impossible to completely remedy this defect, yet, to such a high state of perfection has the prosthesis of these organs been brought, that their loss is now replaced with artificial substitutes which subserve a most valuable purpose. See Artificial Teeth.

EDES. Amber.

EDUCATION, PHYSICAL. The training of the body in such exercises as are calculated to give strength, vigor and health to all of its organs.

EDUL'CORANT. *Edulcorans.* Medicines which are supposed to deprive fluids of their acrimony.

EDULCORA'TION. *Edulcoratio.*—The act of rendering substances mild, either by the effusion of water for the removal of their saline and other disagreeable qualities, or by the addition of saccharine matter.

EF'FERENT. *Efferens;* from *effero*, I carry, I transport. Applied to vessels which convey fluids from glands, as the *vasa efferentia*, which carry lymph from the lymphatic glands to the thoracic duct; and to nerves, which convey

the nervous influence from the nervous centres to the circumference.

EFFERVES'CENCE. *Effervescentia;* from *effervescere*, to boil over, to ferment. In *Chemistry*, the commotion produced by the escape of gas from a liquid, at the ordinary temperature of the atmosphere. In *Humoral Pathology*, a supposed ebullition of the blood or other fluids produced either by elevation of temperature, or the action of the principles contained in them, on each other.

EFFE'TE. *Effœtus.* Impoverished; worn out.

EF'FILA. Freckles.

EFFLORES'CENCE. *Efflorescere;* from *efflorescere*, to blow as a flower. In *Chemistry*, the spontaneous conversion of a solid into a pulverulent substance. In *Botany*, act of lowering. In *Pathology*, acute exanthemata.

EFFLU'VIUM. From *effluo*, to flow out. An exhalation, generally noxious or disagreeable.

EFFUSION. From *effundere*, to pour out. In *Pathology*, extravasation of a fluid into a visceral cavity or into the cellular tissue.

EGES'TA. From *egero*, to carry out. The expulsion of feces from the healthy body.

EGG-PLANT. Solanum melongena.

EGOPH'ONY. *Ægophonia;* from αιξ, a goat, and φωνη, the voice; goat's voice. Applied by Laënnec, to the human voice, where it gives through the stethoscope, a clear and acute sound, resembling the voice of the goat, and which he regards as indicative of moderate effusion into one of the pleuræ.

EHINGER. Dissertation on Toothache, by. Altdorf, 1718.

EJACULA'TION. *Ejaculatio;* from *ejaculare*, to cast out. The act by which the semen is darted through the urethra.

EJAC'ULATORY. *Ejaculans.* Concerned in the ejaculation of the semen.

Ejaculatory Ducts. The vessels which convey the semen to the urethra.

EJEC'TION. *Ejectio;* from *ejicere*, to throw out. Excretion of the feces, urine, &c.

ELABORA'TION. *Elaboratio;* from *e*, and *laborare*, to work. In *Physiology*, the various changes which assimilative substances undergo, through the action of living organs, before they become subservient to nutrition.

ELÆOM'ELI. From ελαιον, oil, and μελι, honey. A purging oil, of a sweet taste, obtained from the trunk of a tree in Syria.

ELÆON. Oil.

ELÆOPH'ANES. From ελαιον, oil, and φαινομαι, I appear. Having the appearance of oil.

ELÆ'O-SAC'CHARUM. From ελαιον, oil, and σακχαρον, sugar. A mixture of essential oil and sugar.

ELAIN. From ελαιον, oil. Oleine. The oily principle of solid fats and oils.

ELAIS GUINEENSIS. A palm found in Guinea and the West Indies, which yields an emolient, fatty substance.

ELASTIC. *Elasticus;* from ελαστης, impulsion, itself from ελαυνειν, to impel, to push. Endowed with elasticity.

Elastic Fluid. A gas.

Elastic Gum. Caoutchouc.

ELASTIC'ITY. A property in bodies which restores them to their original form, after having been made to deviate from it by external force.

ELATE'RIUM. A substance deposited from the juice of the wild cucumber. See Momordica Elaterium.

ELATIN. The active principle of elaterium.

ELBOW. From *ell*, and *bow*. Applied to the articulation of the arm with the forearm, and especially to the projection formed by the ulna.

ELCO'SIS. From ελκος, an ulcer. Ulceration. Applied by Sauvages to cachectic diseases attended with fetid, carious, and chronic ulcers.

ELDER. See Sambucus.

Elder, Dwarf. Sambucus ebulus.

ELECAMPANE. See Inula Helenium.

ELEC'TRIC. Relating to, or containing, electricity.

ELECTRICI'TY. *Electricitas;* from ἤλεκτρον, amber—the substance in which it was first discovered. A property which certain bodies exhibit, either naturally or when subjected to the action of various excitants, causing them to attract or repel light bodies, emit sparks, or streams of light, and to produce involuntary muscular contraction in the bodies of animals when it is made to pass through them. Also, the science which treats of the phenomena of electricity.

ELECTRICITY, VOLTAIC. See Galvanism.

ELECTRO'DE. The end of a wire which communicates with a voltaic circle, commonly called a pole, is so termed by Faraday, because, as he believes, it serves as a path or door to the electric current.

ELECTRODYNAM'ICS. The action of the conductors of electricity or galvanism upon each other when conveying this subtile agent.

ELECTROLY'SIS. The direct decomposition of bodies by galvanism.

ELECTRO-MAG'NETISM. Magnetic electricity.

ELECTROM'ETER. An instrument for measuring electricity.

ELECTROPUNCTURE. The introduction of two or more wires into any part of the body and then connecting them with the poles of a galvanic battery.

ELEC'TROSCOPE. An instrument for the discovery of electrical excitement.

ELEC'TROTYPE. The precipitation, by means of a galvanic current, of a metal, from a solution, upon any metallic object immersed in it.

ELEC'TRUM Amber.

ELECTUA'RIUM. An electuary; a confection.

ELECTUARIUM. CASSIÆ. A confection of cassia.

ELE'MENT. A substance which cannot be divided or decomposed by chemical analysis.

ELEMI. *Amyris elemifera.* A fragrant resin.

ELEPHANTI'ASIS. From ἐλέφας, an elephant. A chronic inflammation of the skin, occurring in warm climates, as in Africa, the West Indies, Madeira, and the Isle of France, in which the integument becomes rough, indurated, wrinkled and scaly, like the skin of an elephant, attended by a diminution and sometimes a total loss of sensibility; the formation of fissures in the skin, ulcerations, &c.

EL'EPHAS. *Elephantiasis.* The elephant; ivory.

ELETTA'RIA. From *elettari.* The name of a genus of plants, to which the lesser cardamom is referred.

ELETTARIA CARDAMOMUM. The officinal cardamom—the seeds of which are aromatic and gently pungent when chewed.

ELEUTHERIA. Cascarilla bark.

ELEVA'TOR. From *elevare,* to lift up. In *Anatomy,* a muscle, whose function consists in raising the part into which it is inserted. See Levator. In *General Surgery,* an instrument used to raise depressed portions of bone, especially of the cranial, or for the removal of the circle detached by the trephine. In *Dental Surgery,* an instrument sometimes employed in the extraction of roots of teeth. The elevator used in the last mentioned operation is of a pointed shape, bearing some resemblance to the tongue of a carp, and is hence called by French dentists, *langue de carpe;* it is flat or slightly concave on one side and convex on the other, attached to a straight or curved shank, according to the fancy of the operator, or the part of the jaw on which it is intended to be employed, and inserted in a large strong ivory, wood, or pearl handle.

ELEVATOR, GOODWIN'S. An instrument invented by Mr. C. T. Goodwin, of Philadelphia, for the extraction of the roots of cuspid teeth. It is shaped

something like the punch bent downwards near the point. With regard to the merits of the instrument the author is unable to speak, not having seen it.

ELEVATOR ANI. Levator ani.

ELEVATOR LABII INFERIORIS PROPRIUS. Levator labii inferioris.

ELEVATOR LABII SUPERIORIS PROPRIUS. Levator labii superioris alæque nasi.

ELEVATOR LABIORUM. Levator anguli oris.

ELEVATOR NASI ALARUM. See Levator Labii Superioris Alæque Nasi.

ELEVATOR OCULI. Rectus superioris.

ELEVATOR PALPEBRÆ SUPERIORIS. Levator palpebræ superioris.

ELEVATOR SCAPULÆ. Levator scapulæ.

ELEVATOR TESTICULI. The cremaster muscle.

ELEVATOR URETHRÆ. The transversus perinæi muscle.

ELEVATORIUM. The elevator; a surgical instrument.

ELIXA'TION. *Elixatio;* from *elixus*, boiled, sodden. The act of boiling or seething.

ELIX'IR. From *elekser*, quintessence. A solution of various medicinal substances, or their active principle, in alcohol. It is analogous to tincture.

ELIXIR ACIDUM HALLERI. A mixture of concentrated sulphuric acid and alcohol.

ELIXIR ALOES. Tincture of aloes and myrrh.

ELIXIR ANTIASTHMATICUM BOERHAAVII. Boerhaavis' antiasthmatic elixir, composed of alcohol, aniseed, orris root, liquorice, elecampane, sweet flag, and asarabacca.

ELIXIR FOR THE MOUTH, MAURY'S. ℞. Root of ratania, ʒ viij. Vulnerary alcohol, ℔ iv. Essential oil of English mint, ʒ iv. Essential oil of orange rind ʒ i. Put the bruised root into a matrass; pour over the alcohol, digest for 18 days, filter and add the essential oils. Add 15 or 20 drops to a tumbler one-third full of water, and rub the teeth and gums with it.

ELIXIR FOR THE TEETH, ARGELAT'S. Take spirit of rosemary, ʒ viij. Rad. pyrethrum, ʒ i. Put into a matrass, and infuse for some days, and filter. When used, mix with two parts water.

ELIXIR FOR THE MOUTH, BOTET'S. Take spirit of wine, at 33°, 2 litres; pounded cloves, cinnamon, green anise, each, 32 grammes; powdered cochineal, essence of peppermint, each, 16 grammes.

ELIXIR, DR. CAPON'S ODONTALGIC. An elixir composed of oil of cloves, oil of thyme, opium, alcohol of roses, and Frontignac wine.

ELIXIR PAREGORICUM. Paregoric.

ELIXIR, ROGER'S TONIC, FOR THE MOUTH. An elixir composed of the following ingredients; vulnerary water, ratany root, oil of English mint, oil of orange peel and alcohol.

ELIXIR SACRUM. Tincture of rhubarb and aloes.

ELIXIR SALUTIS. Compound tincture of senna.

ELIXIR STOMACHICUM. Compound tincture of gentian.

ELIXIR VITRIOLI. Aromatic sulphuric acid.

ELIXIVIA'TION. Lixiviation.

ELK. Cervus alces, or moose deer.

ELLIOT, W. H. Contributions to operative and mechanical dentistry, by; No. 1, on Filling Teeth; No. 2, on the Extraction of Teeth; No. 3, on the Pivoting Method of Inserting Artificial Teeth; No. 4, on the Construction of Artificial Teeth upon plates; No. 5, a new Method of Inserting one or more Teeth upon one or more Roots; No. 6, Hints to the Profession on the Invention and Construction of Dental Instruments; No. 7, on the Working of Steel, Refining Gold, and Making Solders. Besides the above, Dr. Elliot is the author of Observations on the Effects of Irritation upon the Deposition and Absorption of Dental Bone; all of which are published in the American Journal of Dental Science.

ELM. Ulmus.

ELO'DES. From ελος, a marsh, and ειδος, resemblance. Marsh fever.

ELONGA'TION. *Elongatio;* from *elongare*, to lengthen. In *Surgery*, an imperfect luxation, in which the ligaments are stretched and the limb lengthened. Also, the extension required in the reduction of a dislocation or fracture.

ELOY. Dissertation on Antiodontalgic Remedies, by. Vienna, 1772.

ELUTRIA'TION. *Elutriatio;* from *elutrio*, to cleanse. Decantation.

ELU'VIES. From *eluo*, to wash out. A preternatural discharge of any fluid; also the fluid itself. Applied sometimes to leucorrhœa.

ELYTROCE'LE. From ελυτρον, an envelop, and κηλη, a tumor. Vaginal hernia.

EL'YTRON. From ελυω, I involve. A sheath; the vagina. The membranes enveloping the spinal marrow are called ελυτρα.

ELYTROPTO'SIS. From ελυτρον, a sheath, and πτωσις, fall. Applied to inversion and prolapsus vagina.

EMACIA'TION. *Emaciatio;* from *emaciare*, to grow lean. Wasting of the flesh. The condition of a person who is losing flesh. Becoming lean.

EMANA'TION. *Emanatio;* from *emanare*, to issue from. A term applied to fluid or gaseous bodies, which proceed, or originate from other bodies, as light from the sun, odors from plants, and miasmata, from the decomposition of animal and vegetable substances.

EMASCULATE. *Emasculatus;* A male deprived of the generative power.

EMASCULA'TION. *Emasculatio;* from *emasculare*, to render impotent. The act of destroying or removing the male generative organs.

EMBALM'ING. The preservation of the dead body, which, among the Egyptians was usually done by saturating every part with asphaltum.

EMBAM'MA. From εμβαπτω, I immerse in. A medicated condiment, or sauce in which the food is dipt.

EMBON'POINT. A French word, signifying, in good condition, or in full health.

EMBROCA'TION. *Embrocatio;* from εμβρεχω, I sprinkle. A fluid application, especially a liniment, to be rubbed on any part of the body.

EMBROCHE. Embrocation.

EM'BRYO. *Embryon;* from εμβρυω, I grow. The fetus in utero, during the early stages of its development, also the germ of a tooth, or of a plant.

EMBRYOG'RAPHY. *Embryographia;* from εμβρυον, the embryo, and γραφη, a description. An anatomical description of the embryo.

EMERY WHEELS. Wheels varying in thickness from an eighth to three-quarters of an inch, and in diameter, from one to nine or ten inches, composed of shellac and emery. They are employed in the mechanical laboratory of the dentist for grinding porcelain or mineral teeth. When well made they are preferable to any other grinding wheel that can be used for this purpose.

EMESIS. The act of vomiting.

EMET'IC. *Emeticum;* from εμεω, I vomit. A substance capable of exciting emesis.

Emetic Tartar. Tartarized antimony.

Emetic Weed. Lobelia inflata.

EMETIN. *Emetina.* The active principle of ipecacuanha.

EM'ETO-CATHAR'TIC. *Emetico-cathartícus.* A medicine which excites vomiting and purging at the same time.

EM'INENCE. *Eminentia.* A projection, or protuberance on the surface of an organ.

EMINENTIA ANNULARIS. The pons varolii.

EMINENTIÆ CANDICANTES. The corpora albicantia of the brain.

Eminentiæ Lenticulares. The corpora striata.

Eminentiæ Magnæ Cerebri. The thalami opticorum.

Eminentiæ Quadrigeminæ. The tubercula quadrigemina.

EMISSA'RIA DURÆ MATRIS.

The processes of dura mater which accompany the cerebral nerves through the cranial foramina.

EMIS'SION. *Emissio;* from *emittere,* to send out, drive out. The act by which matter of any kind is thrown from the body.

EMMEN'AGOGUES. *Emmeniagoga;* from εμμηνια, the menses, and αγω, I drive, or expel. Medicines which promote or favor the discharge of the menses.

EMME'NIA. The menses.

EMMENOLOG'IA. From εμμηνια, menses, and λογος, a discourse. A treatise on menstruation.

EMOL'LIENT. *Emollentia;* from *emollire,* to soften or relax. Substances which soften and relax inflamed parts, as bland oils, fomentations, cataplasms, &c.

EMO'TION. *Emotio.* Affection of the mind. Delirium

EMPATHE'MA. Εμπαθης; from παθμηα, *passio, affectio.* Ungovernable passion.

EM'PHLYSIS. From εν, in, and φλυσις, a vesicular tumor or eruption. Vesicular eruption, with a discharge of an acrid fluid, as in *aphtha, erysipelas, pemphigus.*

EMPHRAC'TICUS. *Emphractic;* from εμφραττω, I close, I obstruct. A medicine which closes the pores of the skin, when applied to it.

EMPHRAG'MA. That which obstructs.

Emphragma Lachrymale. Fistula lachrymalis.

Emphragma Salivare. Ranula.

EMPHRAX'IS. Obstruction of any cavity or canal.

EMPHY'MA. A tumor, or morbid growth.

EMPHYSE'MA. From εμφυσαω, I inflate. An elastic, crepitant swelling, caused by the introduction of air, or other aeriform fluid into the cellular texture.

Emphysema Abdominis. See Tympanites.

Emphysema of the Lungs. Infiltration of the intercellular texture of the lungs with air.

Emphysema Pectoris. See Pneumothorax.

EM'PIRIC. *Empiricus;* from εμπειρια, experience. Formerly applied to one, who, in the practice of physic, followed experience alone. But at present, applied to one who deviates from the course pursued by regular practitioners, and vends nostrums. The term is used in nearly the same sense as that of charlatan, or quack.

EMPIR'ICISM. The practice of empirics. Quackery.

EMPLASTICUS. An emphractic.

EMPLAS'TRUM. From εμπλασσω, I spread upon. A plaster. A solid glutinous compound, which at the ordinary temperature of the body, adheres to the part on which it is placed.

Emplastrum Adhæ'sivum Anglicum. Court plaster.

Emplastrum Adhæsivum. Emplastrum resinæ.

Emplastrum Ammoni'aci. An ammoniacum plaster.

Emplastrum Ammoniaci Cum Hydrargyro. A plaster composed of ammoniacum, mercury, olive oil and sulphur.

Emplastrum Aromati'cum. Aromatic plaster.

Emplastrum Asafœtidæ. An asafœtida plaster.

Emplastrum Belladon'næ. A plaster of belladonna.

Emplastrum Calefa'ciens. A calefacient plaster.

Emplastrum Cantharidis. A blistering fly plaster.

Emplastrum Cantharidis Vesicatoriæ Compositum. Compound plaster of Spanish flies.

Emplastrum Ceræ. A wax plaster.

Emplastrum Cicu'tæ. A preparation of pitch plaster, with hemlock powder.

Emplastrum Cumini. Cumin plaster.

Emplastrum Diachylon. Emplastrum plumbi.

Emplastrum Epispasticum. Emplastrum cantharidis.

Emplastrum Ferri. Iron plaster.

Emplastrum Gal'bani Compositum. Compound plaster of galbanum.

Emplastrum Galbani. Galbanum plaster.

Emplastrum Gummo'sum. Gum plaster.

Emplastrum Hydrar'gyri. Mercurial plaster.

Emplastrum Hydrar'gyri Composi'tum. A mercurial plaster, with resin.

Emplastrum Lithargyri. Emplastrum plumbi.

Emplastrum Norimbergen'se. An ointment of red lead, wax, oil and camphor.

Emplastrum Opii. An opium plaster.

Emplastrum Oxydi Ferri Rubri. Emplastrum ferri.

Emplastrum Oxydi Plumbi Semivitreum. Emplastrum plumbi.

Emplastrum Picis. *Emplastrum picis compositum.* Compound pitch plaster.

Emplastrum Picis Cum Cantharide. Plaster of pitch, with Spanish flies.

Emplastrum Plumbi. Lead plaster.

Emplastrum Plumbi Carbonatis. Plaster of carbonate of lead.

Emplastrum Polychres'tum. Emplastrum resinæ.

Emplastrum Resinæ. Resin plaster.

Emplastrum Saponis. Soap plaster.

Emplastrum Saponis Compositum. Adhesive plaster.

Emplastrum Simplex. Emplastrum ceræ. Wax plaster.

Emplastrum Thuris Compositum. Compound frankincense plaster.

Emplastrum Vesicato'rium. Emplastrum cantharidis.

EMPO'RIUM. A mart. The brain was formerly so called, because all the affairs of the mind are transacted there.

EMPRES'MA. From ενπρηθω, I burn within. Visceral inflammation; inflammation of any of the viscera.

EM'PRION. From εν, and πριων, a saw, serrated. Applied by some of the older writers to a pulse, in which the strokes of the artery are unequally distended.

EMPROSTHOT'ONOS. From εμπροσθεν, forwards, and τεινω, I stretch, I extend. A form of tetanus, in which the body is drawn forwards.

EMPTO'SIS. Imbibition. Endosmosis.

EMPTY'SIS. From εμπτυω, I spit out. Hæmoptysis.

EMPYE'MA. From εν, within, and πυον, pus. A collection of pus in the cavity of the plura.

EMPYE'SIS. Suppuration. A phlegmonous eruption, in which the pimples gradually fill with purulent fluid, and after awhile dry up, leaving thick scabs.

EMPYOCE'LE. From εν, in, πυον, pus, and κηλη, a tumor. A tumor of the scrotum formed by a collection of pus.

EMPYOM'PHALUS. From εν, in, πυον, pus, and ομφαλος, the navel. A suppurating tumor under the navel, or umbilical hernia.

EMPYOS. Purulent.

EMPYREU'MA. From εμπυρευω, I kindle. A peculiar offensive odor which animal and other substances contract when decomposed by being exposed to a strong heat in a closed vessel.

EMPYREUMAT'IC. *Empyreumaticus.* Possessing the qualities of empyreuma, as an empyreumatic smell or taste.

Empyreumatic Oil. Oil derived from the destructive distillation of animal matters.

EMUL'GENT. *Emulgens;* from *emulgere,* to milk out, to draw out. The renal artery and vein are so called, because the ancients imagined they strained, or milked, the urine through the kidneys.

EMUL'SIO. An emulsion.

Emulsio Acaciæ. Gum Arabic emulsion.

Emulsio Amyg'dalæ. Almond emulsion; almond milk.

Emulsio Camphorata. An emulsion composed of camphor, sweet almonds, blanched; refined sugar and water.

EMUL'SION. *Emulsio.* A medicine of a milky-white appearance, composed of oil and mucilage.

Emulsion, Almond. Mistura amygdalæ.

Emulsion of Asafœtida. Emulsio antihysterica. Mistura asafœtida.

Emulsion, Camphorated. Emulsio camphorata.

Emulsion of Gum Ammoniac. Mistura ammoniaci.

Emulsion of Gum Arabic. Mistura acaciæ.

EMUL'SIVE. Applied to seeds and the kernels of nuts which yield oil when pressed.

EMUNC'TORY. *Emunctorium;*—from *emungere*, to drain off. Any excretory organ of the body, or cavity, containing fluids to be excreted.

ENÆORE'MA. From ἐν, in, and αἰωρεω, I lift up, that which hangs or floats in. A deposit floating in the urine.

ENAMEL OF THE TEETH.—*Cortex striata; adamantina dentium; crusta dentium adamantina; substantia vitrea.* A seemingly semi-vitreous substance which covers the crown, and extends to the neck of a tooth. It is the hardest of all animal substances, is generally of a pearly milk-white color, and extremely smooth and glossy on its surface. Like tooth-bone, it varies in density, being much harder on some teeth than others; it is thickest on those parts most exposed to friction, as on the protuberances of the molares, the cutting edges of the incisores, and the cusps of the bicuspides and cuspidati, and is thinnest towards the neck. The structure of the enamel is fibrous; its fibres radiating from the centre to the surface of the tooth, an arrangement by which immense strength and power of sustaining great pressure, is given to it.

In describing the microscopic structure of the enamel of the human tooth, professor Owen says, it "consists of long and slender, solid, prismatic, for the most part hexagonal, fibres of phosphate, carbonate, and fluate of lime," which "are essentially the contents of extremely delicate membranous tubes, originally sub-divided into minute depressed compartments or cells, of which membranes scarcely a trace can be detected in fully formed teeth. The fibres are arranged closely together, side by side, with occasional narrow angular fissures, or interspaces, which are most common between the ends nearest the dentine; their general direction is perpendicular to the surface of the dentine, where the ends of the prisms are fixed in shallow depressions; the opposite and larger ends form the exposed surface of the enamel; the fibres proceeding to the horizontal masticating surface are, therefore, vertical; the greater number, which are directed to the circumference of the crown, are horizontal, or nearly so; every fibre, as a general rule, having, like the tubes of the dentine, that direction which is best adapted for resisting either the external force of mastication or the effects of lateral pressure. Besides the minute pits corresponding with the inner ends of the enamel fibres, the outer surface of the dentine sometimes presents larger depressions. * * * The enamel fibres describe a flexous course, the curves being much stronger and shorter than the primary curves of the dentinal tubes. The parallelism of the fibres continues over a much smaller extent of any part of the enamel than that of the calcigerous tubes in the dentine: in some parts of the enamel they curve in opposite directions to one another, like the vane of a feather. Sometimes the fibres may be traced through the entire thickness of the enamel; where they fall short, and where

the larger fibres diverge from each other, shorter complimental ones fill up the interspaces. Each fibre is $\frac{1}{5000}$th of an inch in thickness, and is marked throughout its entire course by faint, close set, transverse striæ. When a section of enamel includes several fibres in its thickness, certain of the overlapping curves intercept a portion of light, and occasions the appearance of dusky, brownish waves. Another appearance, more immediately related to the formation of enamel, is produced by lines crossing the enamel-fibres, parallel with the outer margin of the enamel, but not always parallel with that attached to the dentine. These lines are not of equal clearness, but are very nearly equi-distant, being about $\frac{1}{2000}$th of an inch apart; they are more plainly seen in transverse sections of the crown than longitudinal sections, and they have the same relation to the fibres of the enamel which the contour-lines of the dentine bear to the calcigerous tubes. Without doubt they indicate, in like manner, strata of segments of the fibres and stages in the formation of the substance. Where these strata, which are arranged very obliquely to the vertical surface of the dentine, cross out upon that surface, they occasion those waves, transverse annular delicate markings which Leeuwenhoek noticed upon the exterior of the enamel, and which he supposed to indicate successive stages in the protrusion of the tooth through the gum, in taking its place in the dental series."

Again, in treating of the enamel of teeth in general, professor Owen says, "It sometimes forms only a partial investment of the crown, as in the molar teeth of the iguanodon, the canine teeth of the hog and hippopotamus, and the incisores of the rodentia. In these the enamel is placed only on the front of the teeth, but is continued along a great part of the inserted base, which is never contracted into one, or divided into more fangs; so that the character of the crown of the tooth is maintained throughout its extent as regards both its shape and structure. The partial application of the enamel in these 'dentes scalprarii,' operates in maintaining a sharp edge upon the exposed and worn end of the tooth, precisely as the hard steel keeps up the outer edge of the chisel by being welded against an inner plate of softer iron.

In the herbiverous mammalia, with the exception of the edentata, vertical folds or processes of the enamel are continued into the substance of the tooth, varying in number, form, extent and direction, and producing, by their superior density and resistance, the rigid inequalities of the grinding surface on which its efficacy, and the trituration of vegetable substances, depends."

Mr. Nasmyth has demonstrated with the microscope, that the enamel of the human tooth, as well as the dentinal part is cellular. Each cell "is of a semi-circular form, and the convexity of the semi-circle looks upwards towards the free external position of the tooth." Thus, by this most peculiar structural arrangement, a capability of resisting mechanical force is given to the enamel, which its simple fibrous structure would wholly fail to supply.

The chemical composition, according to Berzelius, in every 100 parts of enamel is, to wit:

Phosphate of lime,	85.3
Fluate of lime,	3.2
Carbonate of lime,	8.0
Phosphate of magnesia,	1.5
Soda and muriate of soda,	1.0
Animal matter and water,	1.0
	100

These proportions, however, are not always the same. They vary in the enamel of the teeth of different individuals.

Enamel of Porcelain Teeth. See Mineral Teeth.

ENANTHE'SIS. *Enanthema;* from εν, in, and ανθεω, I flourish. An eruption on the skin, not connected with in-

ternal disease, as scarlet fever, measles, &c.

ENARTHRO'SIS. From εν, in, and αρθρον, a joint. A species of diarthrosis, in which the round head of one bone is received into a cavity of another, so as to admit of motion in all directions.

ENCAN'THIS. From εν, and καν-θος, the angle of the eye. A tumor or excrescence in the internal angle of the eye.

ENCANTHIS BENIG'NA. A soft, red, and sometimes rather livid excrescence of the caruncula lachrymalis, which generally yields to astringent collyria.

ENCANTHIS MALIG'NA. A malignant excrescence of the caruncula lachrymalis.

ENCATALEP'SIS. Catalepsy.

ENCATHIS'MA. Semicupium.

ENCAU'MA. From εν, in, and καιω, I burn. The scar of a burn, or the vesicle caused by a burn.

ENCAU'SIS. A burn; encauma; moxibustion.

ENCEPHALALGIA. Head-ache.

ENCEPHALALGIA HYDROPICA. Hydrocephalus, or dropsy of the brain.

ENCEPHAL'IC. *Encephalicus;* from εν, in, and κεφαλη, the head. Relating to the encephalon.

ENCEPHALI'TIS. Inflammation of the brain.

ENCEPHALITIS EXSUDATORIA. Hydrocephalus internus.

ENCEPHALOCE'LE. From εγκεφαλος the brain, and κηλη, hernia. Hernia of the brain. Hernia cerebri. Fungus cerebri.

ENCEPH'ALOID. From εγκεφαλος, and ειδος, resemblance. Cerebriform. This term is applied by Laënnec to a species of morbid substance which frequently constitutes the mass of scirrhous or cancerous tumors, because of its resemblance to the medullary substance of the brain.

ENCEPHALO'MALACIA. Mollities cerebri, or softening of the brain.

ENCEPH'ALON. *Encephalos;*—from εν, in, and κεφαλη, the head. The contents of the cranium, including the cerebrum and cerebellum, medulla oblongata, with their blood vessels, nerves and investing membranes.

ENCEPHALOPYO'SIS. From εγκεφαλος, the brain, and πυον, pus. Ulceration of the brain.

ENCHARAX'IS. Scarification.

ENCHON'DROMA. From εν, in, and χονδος, a cartilage. Cartilaginous exostosis, or the formation of gelatinous cartilage in a bone.

ENCHYMO'MA. *Enchymosis;* from εν, in, and χυω, I pour. Infusion or pouring in of blood into the cutaneous vessels, caused by joy, anger, or shame.

ENCLYS'MA. From εν, in, and κλυζω, to cleanse out. A clyster.

ENCŒ'LIA. From εν, in, and κοιλια, the belly. The abdominal viscera.

ENCŒLI'TIS. Inflammation of the abdominal viscera.

ENCYSTED. From εν, in, and κυστις, a bladder. A tumor or other matter enclosed in a cyst or sac.

ENCYS'TIS. An excysted tumor.

ENDEIXIS. Indication.

ENDEM'IC. *Endemicus;* from εν, in, and δημος, the people. The prevalence of a disease in a particular region or district of country.

ENDERMAT'IC. *Endermaticus;* from εν, in, and δερματικος, cutaneous. The treatment of disease by the application of remedies to the skin, especially after the removal of the cuticle.

ENDO. From ενδον, within. A common prefix.

ENDO-AORTI'TIS. From ενδον, within, and *aortitis*, inflammation of the aorta. Inflammation of the inner membrane of the aorta.

ENDOCARDI'TIS. Inflammation of the lining membrane of the heart.

ENDOCAR'DIUM. The lining membrane of the heart.

ENDOCOLITIS. Dysentery.

ENDODONTI'TIS. From ενδον, within, οδους, a tooth, and *itis*, signifying inflammation. Inflammation of the

lining membrane of a tooth. This may result from exposure of the pulp cavity and the presence or contact of acrid and irritating agents, or from exposure to sudden transitions of temperature, or from mechanical violence, as in the case of a blow, or improperly performed dental operations. It may also occur as the result of constitutional disease. But from whatever cause it is produced, its occurrence is always attended with the severest and most agonizing pain, and is seldom relieved by any other means than the extraction of the tooth, or the destruction of the pulp and lining membrane. It may, however, sometimes be subdued by the timely application of leeches to the gum, and the use of such constitutional remedies as may be indicated by the state of the general health.

When no means are used to arrest the inflammation, it generally very soon terminates in suppuration and alveolar abscess. See Alveolar Abscess and Odontalgia.

ENDO-ENTERITIS. Enteritis.

ENDO-GASTRITIS. Inflammation of the lining membrane of the stomach.

ENDOSIS. Remission.

ENDOSMOSE. *Endosmosis;* from ενδον, within, and ωσμος, impulse. Imbibition. The transmission of a fluid through a membrane from the exterior to the interior, or the attraction of a thin fluid from without by a denser one within. Mr. Lintot, an English dentist, and author of a small Treatise on the Teeth, is of the opinion that dental caries is the result of the chemical operation of an acidulated fluid of the mouth, upon the dentinal tissue, while undergoing an endosmotic action on it. That an endosmotic action, might, under certain circumstances, take place through the cells of tooth-bone, is not improbable, and in the event of its occurrence, would, it is fair to presume, hasten the decomposition of the part of the tooth in which it was taking place.

ENDOS'MOTIC. Relating to endosmose.

ENDOSTEI'TIS. Inflammation of the lining membrane of a bone.

EN'EMA. From ενιημι, to inject. An injection; a clyster.

Enema Ano'dynum. An anodyne clyster; a clyster of starch and opium.

Enema Cathar'ticum. A purging clyster.

Enema Commu'ne. A common clyster, compound of water gruel, or molasses and water, with a little oil or lard, and common salt.

Enema Fœt'idum. A purging clyster of tincture of asafœtida.

Enema Nicotia'næ. A tobacco clyster.

Enema Terebinthinæ. A turpentine clyster.

ENEPIDERM'IC. *Enepidermicus;* from εν, in, επι, upon, and δερμα, the skin. The treatment of disease, by the application of remedies, such as plasters, blisters, &c. upon the skin.

EN'ERGY. *Energia;* from ενεργεω, I act. In *Physiology*, the active operation of the various organs of the body. Thus we say, the *vital energy*, the *muscular energy*, the *nervous energy*, &c.

ENERVA'TION. *Enervatio;* from *e*, out of, and *nervi*, strength. The act of debilitating; a state of weakness.

ENGASTRIM'YTHUS. From εν, in, γαστηρ, the belly, and μυθεομαι, I discourse. A ventriloquist.

ENGEISO'MA. *Engizoma;* from εγγιζω, I approximate. A fracture of the skull, in which a broken portion of bone passes beneath a sound portion.

ENGOM'PHOSIS. Gomphosis.

ENGORGEMENT. From *en*, in, and *gorge*, the throat. Inordinate flow of blood to the vessels of a part or organ, and consequent obstruction and increase of volume.

ENNUI. Mental languor.

ENOSIS. Insertion.

ENOSTO'SIS. From εν, in, and οστεον, a bone. A tumor formed in the medullary part of bone.

Unable to display this page

animalcule, found in the cutaneous follicles.

EN'TRAILS. The abdominal viscera; the intestines.

ENTRICO'MA. From εν, in, and τριχωμα, hair. The ciliary edge of the eyelids.

ENTROP'IUM. *Entropion;* from εν, in, and τρεπω, I turn. Inversion of the eyelids, so that the eyelashes are brought in contact with, and irritate and inflame the globe of the eye.

ENURE'SIS. From ενουρεω, I void urine in bed. Involuntary flow of urine from paralysis or relaxation of the sphicter of the bladder.

EP-, EPH-, EPI-. Επ, εφ, επι, upon, above; and meaning, above, exterior, augmentation, addition, increase, reciprocal action, repetition.

EPACMAS'TICOS. From επι, and ακμαζω, I increase. Fevers which increase in violence, from the commencement till the crisis.

EPANE'TUS. From επανιημι, to remit. Applied by Dr. Good to remittent fevers.

Epanetus Hectica. Hectic fever.

Epanetus Malignus Flavus. Yellow fever.

Epanetus Mitis. Remittent fever.

EPAPHÆ'RESIS. From επαφαιρεω, I take away. Repeated obstruction or evacuation; particularly of blood.

EPAR'MA. A tumor.

EPHEL'CIS. From επι, upon, and ελκος, an ulcer. The crust of an ulcer.

EPHE'LIDES. From επι, upon, and ηλιος, the sun. Freckles; sunburns. A cutaneous disease chacterized by small and large brown spots upon the skin, and caused, as the name imports, by the direct rays of the sun.

EPHE'MERA. From επι, during, and ημερα, a day. In *Pathology*, an epithet applied to disease, especially a fever, which lasts but a day, also to a poison which proves fatal within a day.

EPHIAL'TES. From εφαλλομαι, to leap upon. Nightmare; a distressing sensation which occurs during sleep, in which the individual fancies himself threatened by the approach of an enemy or eminent danger from which he cannot escape.

EPHIDRO'SIS. From εφιδρου, to perspire. A copious morbid perspiration. A colliquative sweat.

EPICAR'PIUM. From επι, upon, and καρπος, the wrist. An application to the wrist.

EPICHRO'SIS. From επι, upon, and χρωμα, color. Discoloration of the surface.

EPICOL'IC. From επι, upon, and κωλον, the colon. The part of the abdomen over the colon.

EPICONDYLE. From επι, upon, and κονδιλος, a condyle. A protuberance at the lower extremity of the os humeros, which gives attachment to the outer lateral ligament of the elbow-joint, and to a very strong tendon to which several muscles of the posterior part of the forearm are attached; is so called, because it is above the condyle.

EPICONDYLO-CUBITALIS. The anconeus muscle.

Epicondylo-Radialis. The supinator radii brevis.

Epicondylo-Supra-Metacarpianus. The carpi radialis brevior.

Epicondylo-Supra-Phalangettianus Communis. The extensor-digitorum communis.

Epicondylo-Supra-Phalangettia'nus Mi'nimi Digiti. The extensor proprius minimi digiti.

EPICOPHO'SIS. Cophosis; deafness.

EPICRA'NIUM. From επι, upon, and κρανιον, the cranium. Applied to various parts on the cranium, as the tendinous expansion of the occipito-frontalis muscle, and even to the whole scalp.

EPICRA'SIS. From επι, upon, and κεραννυμι, I temper. The treatment of disease by soothing and demulcent remedies, which the humorists supposed

possessed the power of correcting the vitiated humors.

EPICRI'SIS. The judgment of the natural causes, treatment and probable termination of a disease, founded on scientific principles.

EPIDEM'IC. *Epidemicus;* from επι, upon, and δημος, the people. A disease which simultaneously attacks multitudes of persons at the same time, and in the same district, and which is dependent on a noxious condition of the atmosphere.

EPIDEN'DRUM VANILLA. See Vanilla.

EPID'ERIS. The clitoris.

EPIDER'MIC. *Epidermicus;* from επιδερμις, the scarf skin. Pertaining to the epidermis.

EPIDER'MIS. From επι, upon, and δερμα, the skin. The cuticle, or scarf skin.

EPIDER'MOID. From επιδερμις, and ειδος, resemblance. Resembling the epidermis.

EPI'DESIS. In *Surgery*, the act of of binding up a wound; also, the application of a ligature to a wounded vessel.

EPIDES'MOS. A bandage or ligature.

EPIDID'YMIS. From επι, upon, and διδυμος, a testicle. A hard oblong substance upon the testicle formed by the convolutions of the *vas deferens.*

EPI'DOSIS. From επι, and διδωμι, to give. Increase, as of a disease, or in the growth of the body,

EPID'ROME. From επιδρεμω, I run upon. An afflux of humors.

EPIGAS'TRIC. *Epigastricus;* from επι, upon, and γαστηρ, the stomach. Relating to the epigastrium.

Epigastric Artery. An artery given off by the external iliac when it passes under Poupart's ligament, ascends between the rectus muscle and peritoneum, and anastamoses about the umbilicus, with the internal mammary artery.

Epigastric Region. The region, on each side, below the short ribs, extending from the diaphragm to within two fingers of the umbilicus.

EPIGAS'TRIUM. The epigastric region, or part situated immediately over the stomach.

EPIGASTROCE'LE. From επι, upon, γαστηρ, the stomach, and κηλη, a tumor. Hernia, at or near the epigastric region, whether of the stomach or not.

EPIGEN'ESIS. From επι, upon, and γενεσις generation. A theory of generation which regards the fetus as receiving at once from each parent the materials necessary for its formation.

EPIGLOT'TIC. *Epiglotticus.* Pertaining to the epiglottis.

Epiglottic Gland. A collection of small glands situated at the base of the anterior surface of the epiglottis.

EPIGLOT'TIS. From επι, upon, and γλωττις, the tongue. An oval cartilage, concave posteriorly, and convex anteriorly, situated at the root of the tongue upon the superior opening of larynx. It is loose at its superior extremity, and attached at its inferior to the thyroid cartilage. Its use is to ease the glottis, or superior opening of the larynx, and prevent the introduction of alimentary substances into the air passages during deglutition.

EPIGLOTTI'TIS. Inflammation of the epiglottis.

EPIGLOU'TIS. From επι, upon, and γλουτος, the buttocks. The superior region of the buttocks.

EP'ILEPSY. *Epilepsia.* Επιλημψια; from επιλαμβανω, I seize upon. A disease of the cerebro-spinal organs, attended with violent convulsions, coma, and generally, foaming at the mouth. The disease may be idiopathic, or symptomatic. In the former case, it results from a morbid affection of the encephalon; in the latter, from worms, intestinal irritation, external violence, or from some other accidental cause.

EPILEP'TIC. *Epilepticus;* affected with, or relating to, epilepsy.

EPINYC'TIDES. From επι, upon, and νυξ, night. Eruptions which appear during the night, and disappear in the morning. A kind of nettle rash.

EPIPAROXYS'MUS. The two frequent occurrence of the febrile paroxysm.

EPIPHÆNOM'ENON. The occurrence of any unusual symptom during the progress of a disease.

EPIPHLOGIS'MA. From επι, upon, and φλογιξω, I inflame. Inflammation or burning heat in any part.

EPIPH'ORA. From επιφερω, I carry to. Weeping. Continued involuntary flow of tears, caused by disease, or irritation of the lachrymal passages.

EPIPHRAG'MA. In *Botany*, a transverse membrane of the peristoma of mosses, which sometimes closes the orifice of the urn and remains long after the opercula have separated.

EPIPHYL'LA. From επι, upon, and φυλλον, a leaf. In *Botany*, parts or organs growing upon the leaf, as the *pedicle* of *jungermannia epiphylla;* also, to plants themselves, which vegetate on the leaves of other plants, and hence, are called *epiphyllous* fungi.

EPIPHYMA'TA. Diseases of the skin.

EPIPH'YSIS. From επι, upon, and φυω, I arise. Any portion of bone separated from the body of the bone by intervening cartilage, which ultimately becomes converted into bone. The epiphysis then becomes a process.

EPIPLOCE'LE. From επιπλοον, omentum, and κηλη, hernia. Hernia, formed by the omentum.

EPIP'LOIC. Pertaining to the epiploon or omentum.

Epiploic Appen'dages. Numerous small prolongations of the peritoneum filled with adipose matter, extending beyond the surface of the colon and rectum.

Epiploic Arteries. The branches from the gastro-epiploic artery which are distributed to the epiploon.

EPIPLO-ISCHIOCE'LE. From επιπλοον, the epiploon, ισχιον, the ischium, and κηλη, a tumor. Protrusion of the omentum through the ischiadic notch.

EPIPLOI'TIS. From επιπλοον, the omentum, and *itis*, denoting inflammation. Inflammation of the omentum.

EPIPLOMEROCE'LE. From επιπλοον, the omentum, μηρος, the thigh, and κηλη, a tumor. A femoral hernia, formed by a protusion of the omentum.

EPIPLOM'PHALON. From επιπλοον, the omentum, and ομφαλος, the navel. An omental umbilical hernia.

EPIPLOM'PHRASIS. From επιπλοον, the omentum, and εμφρασσω, I obstruct. Obstruction of the omentum.

EPIP'LOON. From επι, above, and πλεω, I swim, or float. The omentum, or cawl, which consists of a duplicature of the peritoneum, is so called, because it floats, as it were, above a portion of the intestines.

EPIPLOSCHEOCE'LE. From επιπλοον, the omentum, οσχεον, the scrotum, and κηλη, a tumor. Omental hernia, in the scrotum.

EPIPORO'MA. Επιπωμα. A hard tumor about the joints; the callus of a fracture.

EPIS'CHESIS. From επισχνω, I restrain. A suppression of excretions.

EPISCOPA'LES VAL'VULÆ.—The mitral valves.

EPISEMA'SIA. A sign. A symptom.

EPISIONC'US. A swelling or tumor of the labia pudendi.

EPISPA'DIAS. From επι, above, and σπαω, I draw. A malformation of the urethra, consisting in its opening on the upper side of the penis.

EPISPAS'TIC. *Epispasticus;* from επι, above, and σπαω, I draw. Any substance, which, when applied to the skin, excites inflammation and causes an effusion of serum under the epidermis. Among the substances which produce these effects, are cantharides and mustard.

EPISPAS'TICUM. A blister.

EPIS'TASIS. From επι, upon,

and σταω, I rest. A substance which floats on the surface of urine.

EPISTAX'IS. From επι, upon, and σταζω, I flow, drop by drop. Nasal hemorrhage.

EPISTER'NAL. From επι, upon, and στερνον, the sternum. The first or anterior portion of the sternum, which, in birds, sustain the forked clavicle.

EPISTHOT'ONOS. From επισθεν, forwards, and τεινω, to extend. A variety of tetanus, in which the body is drawn forward.

EPISYNAN'CHE. Spasm of the pharynx.

EPIT'ASIS. From επι, and τεινειν, to extend. The period of violence of a fever, paroxysm, or disease.

EPITHE'LIUM. From επι, upon, and θηλη, a nipple. The thin layer of epidermis which invests parts deprived of the *derma*, properly so called, as the *nipple*, and mucous membrane in general. This structure, according to Mr. Nasmyth, is composed of cells, and though destitute of vessels, he says, it cannot be regarded as inorganic.

Epithelium of the Mouth. On the structure of that portion of the epithelium which lines the cavity of the mouth, he observes, "In the fetal subject, previous to the extrusion of the teeth, it forms on the alveolar arch a dense, projecting layer, distinguishable from the surrounding membrane by its whiteness, and by the existence on its surface of ridges and sulci, having a waving course and a variable direction. The alveolar epithelium is thicker in proportion to the youth of the subject examined. It is most prominent where it corresponds with the molar teeth; its internal surface is concave, receiving the projecting mucous membrane. This portion presents various objects for investigation.

"Firstly, as regards its composition: It is made up of a mass of scales, lying one on the surface of the other. This disposition shows that the terms "dental cartilage," or the "cartilage of the gum," which have hitherto been applied to this structure, give an erroneous idea of its true nature, for cartilage always presents the corpuscle discovered and described by Purkinje. As in other portions of the epithelium, the external scales here are the larger, and this holds good generally, until we come to the surface of the vascular mucous membrane, which presents simple cells with their corpuscles.

"In the interior of this alveolar epithelium, where it corresponds to the molar teeth, small vesicles may be frequently observed, varying in size, from one-quarter to one-eighth of a line in diameter. They appear to the naked eye to be transparent; under the microscope their parietes are found to consist of attenuated scales, and their cavity to contain a fluid abounding in minute granules and cells.* The internal surface of the epithelium, covering the alveolar arch, frequently presents concavities or indentations which are from a line and a half to three or four lines in circumference: they correspond to projections from the mucous membrane formed by a larger species of vesicle. The latter is deeply implanted in the vascular mucous membrane. The parietes of these vesicles are composed of a very delicate membrane; they contain a transparent fluid which coagulates on the application of heat or acid, or on immersion in spirit, and in this fluid floats numerous globules and scales similar to those of the epithelium generally. The internal or attached surface of the alveolar epithelium also presents numerous fringed processes measuring from one line to one and a half lines in length, and half a line in breadth, which sink into the substance of the subjacent mucous membrane. Under the microscope these

*The vesicles here alluded to, are most probably those which Serres describes as glands for the secretion of tartar; they are very numerous, even after the extrusion of the incisor teeth of the calf, and are seen with great facility internally.

fringes are found to be composed of elongated scales connected together, forming masses which divide and subdivide, until they attain such an extreme tenuity that the most minute terminations consist but of two scales in marginal apposition. If the epithelium be carefully separated from the surface of the mucous membrane corresponding to the unextruded molar teeth, and placed in water or in diluted spirit of wine for some little time, its internal or attached surface presents these fringes much enlarged and forming a mass more considerable in size than the dense epithelium itself.

"The epithelium covering the mucous membrane of the palate presents transverse rugæ, corresponding to those of the mucous membrane. If these palatal rugæ of the epithelium of the calf be carefully examined from the internal surface with a magnifying power of one inch focal distance, each will be found to consist, or to be composed of numerous depressions, or cul de sacs, which receive prolongations or pointed processes of the subjacent mucous membrane.

"They are of extreme tenuity, and, when viewed by the aid of high magnifying powers, are observed to consist of distinct scales.

"A question of much interest, and one to which I have paid considerable attention, is whether recent investigators are warranted in considering mucous and epithelium as identical. I am disposed to think that they are formations quite independent of each other; but my reasons for arriving at this conclusion are numerous, and the details of my investigations upon this part of the subject I propose to treat of at length elsewhere."

EP'ITHEM. *Epithema;* from επι, upon, and τιθημι, I put. A term which comprehends all topical remedies, with the exception of plasters and ointments.

EPITHEMATIUM. Epithem.

EPITH'ESIS. The straightening of crooked limbs, by means of instruments.

EPIZOO'TIC. *Epizooticus;* from επι, upon, and ζωον, an animal. The simultaneous occurrence of a disease among a great number of the lower animals. In the *Veterinary Art*, it has the same meaning that *epidemic* has in *medicine*.

EPODE. The treatment of disease by incantation.

EPO'MIS. From επι, upon, and ωμος, the shoulder. The acromion; the upper part of the shoulder.

EPSE'MA. Decoction.

EPSOM SALTS. Sulphate of magnesia.

EPU'LIS. From επι, upon, and ουλον, the gum. A fungous excrescence or tumor of the gums. It is sometimes soft, at other times hard, and makes its appearance upon the gum between two teeth, or from the sockets of decayed teeth. It is sometimes of a simple and at other times of a malignant character. See Jaws, morbid growths of.

EPULO'SIS. Cicatrization.

EPULO'TIC. *Epuloticus;* from επουλοω, to cicatrize, or heal up a wound. Remedies which promote cicatrization.

EQUILIB'RIUM. From *æquus*, equal, and *librare*, to weigh. In *Medicine*, harmony in the reciprocal action of the organs of the body.

EQUI'NIA. From *equinus*, belonging to a horse. Glanders. A contagious, and sometimes a dangerous disease, and is produced by inoculation with certain diseased fluids generated in the horse, mule, &c. Two species are met with, *equinia mitis*, caused by inoculation with the fluid of *grease*, and *equinia glandulosa*, a malignant and usually fatal disease.

EQUISE'TUM. Hippuris vulgaris, or mare's tail.

EQUITA'TION. From *equus*, a horse. Exercise on horseback.

EQUIV'ALENTS, CHEMICAL. In *Chemistry*, a term introduced by Dr. Wollaston to express the proportional

weight in which bodies elementary and compound, reciprocally unite.

*Table of Elementary Substances, with their Symbols and Chemical Equivalents.**

Elements.	Symbols.	Equivalents.
Aluminium .	Al.	13.07
Antimony . .	Sb.	64.06
Arsenic . . .	As.	37.07
Barium . . .	Ba.	68.07
Bismuth . . .	Bi.	71.00
Boron	B.	10.09
Bromine . . .	Br.	78.04
Cadmium . . .	Cd.	58.08
Calcium . . .	Ca.	20.05
Carbon . . .	C.	6.12
Cerium . . .	Ce.	46.00
Chlorine . . .	Cl.	35.42
Chromium . .	Cr.	28.00
Cobalt	Co.	29 05
Columbium . .	Ta.	185.00
Copper . . .	Cu.	31.06
Fluorine . . .	F.	18.68
Glucinium . .	G.	26.05
Gold	Au.	199.02
Hydrogen . . .	H.	1.00
Iodine . . .	I.	126 03
Iridium . . .	Ir.	98.08
Iron	Fe.	28.00
Lead	Pb.	103.06
Lithium . . .	L.	6.00
Magnesium . .	Mg.	12.07
Manganese . .	Mn.	27.07
Mercury . . .	Hg.	202.00
Molybdenum .	Mo.	47.07
Nickel	Ni.	29.05
Nitrogen . .	N.	14.15
Osmium . . .	Os.	99.07
Oxygen . . .	O.	8.00
Palladium . .	Pd.	53.03
Phosphorus . .	P.	15.07
Platinum . . .	Pt.	98.08
Potassium . .	K.	39 15
Rhodium . . .	R.	52 02
Selenium . .	Se.	39.06
Silicium . . .	Si.	22.05
Silver . . .	Ag.	108.00
Sodium . . .	Na.	23.03
Strontium . . .	Sr.	43.08
Sulphur . . .	S.	16.01
Tellurium . . .	Te.	64.02
Thorium . . .	Th.	59.06
Tin	Sn.	57.09
Titanium . .	Ti.	24.03
Tungsten . . .	W.	99.07
Vanadium . .	V.	68.05
Uranium . . .	U.	217.00
Yttrium . .	Y.	32.02
Zinc	Zn.	32.03
Zirconium . .	Zr.	33.07

*Turner's Chemistry.

EQUIV'OCAL. From *æquus*, equal, and *vox*, voice. Symptoms of a doubtful nature, or which belong to several diseases.

EQUUS. A constant nictitation or winking.

ERADICA'TION. *Eradicatio*; from *e*, from, and *radix*, a root. The complete removal, or rooting out of a disease.

ERAD'ICATIVE. Any thing which possesses the power of rooting out, or completely curing a disease.

ERASTUS. Dissertation on the Teeth, by. Tiqur, 1595.

EREC'TILE TISSUE. A peculiar tissue of the animal economy, described by some writers, but not recognized by others, consisting of a vascular network, liberally supplied with nerves, and susceptible of erection by an increased flow of blood. It enters into the composition of the corpora cavernosa of the penis and clitoris, the inferior part of the vagina and corpos spongiosum-urethræ; of the lips, iris, nipples, nervous papillæ, &c. The same tissue is sometimes developed as a morbid structure, as exemplified in nævus maternus, many hemorrhoidal, varicose, polypous and other tumors.

EREC'TION. *Erectio*. The action, or enlargement which takes place in erectile tissues.

ERECTOR CLITORIDIS. The ischio-cavernosus. A muscle, which, by drawing the clitoris downwards and backwards, forces the blood into it from its crus, and serves to make the body of it more tense.

Erector Penis. The ischio-cavernosus. A muscle of the penis, which, by its contraction, forces the urine and semen forward, and causes the blood to flow into the corpus cavernosum and the glands, and thus to distend them.

EREMACAU'SIS. From ερημος, waste, and καυσις, combustion. The slow combustion, oxydation, or decay which takes place in organic bodies when freely exposed to air and moisture.

ER'ETHISM. *Erethismus;* from ερεθιζω, I irritate. Exaltation, or increase of the vital phenomena in any organ or tissue. Irritation.

ERETHIS'MA. Rubefacient.

ERETHIS'MUS. Irritation.

Erethismus Erbriosum. Delirium tremens.

Erethismus Hydrophobia. Hydrophobia.

Erethismus Mercurialis. A state of the constitution produced by mercury, characterized by depression of strength, anxiety about the præcordia, frequent sighing, irregular action of the heart, small quick pulse, sometimes intermitting; tremors, shrivelled countenance, a sense of coldness, &c.

ERETHIT'IC. Appertaining to erethism.

EREUG'MOS. Eructation.

ERGOT. Spurred rye. See Secale Cornutum.

ERGOTA. Ergot.

ER'GOTISM. The effects produced by ergot.

ERIG'ERON CANADENSE.—Canada fleabane.

ERODED. Gnawed.

ERODIUM MOSCHATUM. Geranium moschatum.

ERO'SION. *Erosio;* from *erodere,* to eat away. The gradual destruction of a part by the action of a corrosive substance.

Erosion of the Teeth. A species of caries, characterized by a gradual decomposition, first, of the enamel, and afterwards of the subjacent osseous tissue of a tooth, when it is termed caries. It has been divided by European continental writers into congenital and accidental. The former occurs previously to the eruption of the teeth, and is dependent upon an acidulated condition of the mucous fluid contained in the sacs of the teeth; the latter, at any subsequent period of life, and is referable to an acidulated condition of the mucous fluids of the mouth.

Erosion, properly speaking, confines itself to the enamel, and is usually developed on a series of teeth at the same time. When the disease occurs subsequently to the eruption of the teeth, it generally manifests itself on their labial and outer surfaces near the margin of the gums, and the decomposed part of the enamel is generally white and of a soft chalky texture, though sometimes it assumes other aspects. The eroded parts are usually very sensitive to the touch, and to impressions of heat and cold. After it has destroyed the enamel, the exposed bone assumes a light or dark brown appearance.

Teeth of a soft texture, are more liable to be attacked by it than very hard teeth, and it occurs more frequently during protracted inflammatory and other febrile diseases, than when the functional operations of the body, generally, are healthily performed. Indeed, any constitutional disease which has a tendency to impair the mucous secretions of the body, may be regarded as favoring the occurrence of the disease, and although the enamel on the anterior and outer surfaces of the teeth are more liable to be attacked by it than any other parts, yet it does sometimes manifest itself at other points on these organs. But here, the mucous secretions of the mouth are less frequently washed from the teeth by the saliva, and it is for this reason, that erosion oftener developes itself on these than other parts of the teeth.

In speaking of congenital erosion of the teeth, M. Delabarre, says, "in cases of children that have been sick, the part

of the tooth that was formed before the disease," (meaning the constitutional affection which had caused the acidulation of the fluids of the sacs,) "is frequently sound, though situated in the midst of disordered fluids, whence," says he, "I have concluded that the action of this fluid is the more fatal to the enamel as the enamel is the more recent, so that its dissolution may gradually happen, as it is deposited by the vessels of the germ* in a state of disease, and consequently before it has acquired that degree of aggregation and consistence which is necessary to resist the acidulated mucus that surrounds it. To assure myself of the acidity, I placed this mucus upon blue paper dyed with the turnsole, the color of which, on touching the mucus, was immediately changed to a red, the more marked as the teeth appear to be more strongly corroded."

The enamel is sometimes so badly eroded on the eruption of the teeth, as to render their preservation hopeless. But whether the disease be congenital or accidental the treatment is the same, and for a description of which, the reader is referred to the article on caries of the teeth.

EROT'IC. *Eroticus;* from ερως, love. Relating to the passion of love, as *erotic melancholy, erotic delirium,* &c.

EROTOMA'NIA. *Eromania;* from ερως, love, and μανια, madness. Melancholy, or alienation of mind produced by love.

ERRAT'IC. *Erraticus;* from *errare,* to wander. Wandering; irregular. In *Pathology,* applied to fevers which observe no regular type, and to pains, and cutaneous diseases, which shift from place to place.

ER'RHINE. *Errhinum;* from εν, in, and ρις, the nose. A substance, which, when applied to the nose, excites sneezing and increased secretion.

* M. Delabarre, is of the opinion that the enamel is an integral part of the tooth, and that its animal and earthy bases are derived from the germ or pulp.

ER'RHYSIS. From εν, in, and ρεω, I flow. A slight hemorrhage.

ERROR LOCI. An epithet, employed by Boerhaave, to express deviation of fluids, when they enter vessels not destined to receive them; as, for example, when red blood enters vessels which circulate only the serous part of this fluid, they become obstructed by *error of place.*

ERUCTA'TION. *Eructatio;* from *eructare,* to belch. An emission from the mouth of gas from the stomach.

ERUP'TION. *Eruptio;* from *erumpere,* to break, or burst out. According to the usual acceptation of this term, in *Pathology,* it signifies the development of an exanthematous affection on the surface, and the exanthema itself. It is, however, sometimes applied to a copious evacuation of a fluid; blood, serum, pus, or gas, from a canal or cavity. Also, the emergence of the teeth from the gums.

ERUPTION OF THE TEETH. See Dentition.

ERUP'TIVE. *Eruptivus.* Applied to diseases, especially fevers, which are accompanied by an eruption on the skin.

ERYN'GIUM AQUAT'ICUM.—Eryngium; water eryngo; button snake-root.

ERYNGIUM MARIT'IMUM. The sea holly, or eryngo.

ERYS'IMUM ALLIARIA. The systematic name of Jack-in-the-hedge, or stinking hedge-mustard.

ERYSIP'ELAS. From ερυω, I draw in, and πελας, near, so called, from its tendency to spread to neighboring parts. A cutaneous phlegmasia, vulgarly termed St. Anthony's fire, accompanied with swelling, diffused redness, but more or less circumscribed, pain and heat, and vesications. Several species are described by medical writers.

ERYSIPEL'ATOUS. Belonging to erysipelas.

ERYTHE'MA. From ερυθρος, red. Redness. According to Dr. Cullen, a

rash, or inflammatory blush, without fever. It is regarded, also, by some authors to be analogous to erysipelas. The term is employed by Dr. Willan to designate a genus of cutaneous diseases of the third order, *exanthemata*, and enumerates six species. He defines it to be "a nearly continuous redness of some portion of the skin, attended with disorder of the constitution, but not contagious."

Erythema Anthrax. Anthrax.

Erythema Centrif'ugum. Erythema of the face, characterized by a small red spot, which sometimes spreads over the whole face.

Erythema Epidemicum. See Pellagra.

Erythema Fugax. An erythema which consists of red patches of an irregular shape, and which, sometimes, occurs in febrile diseases and during dentition.

Erythema Læve. A slight shining redness of the skin, especially on the lower extremities, of persons affected with anasarca.

Erythema Margina'tum. Erythema bounded by a hard irregular red border, and in which the patches are distinctly separated from each other.

Erythema Mercuriale. Eczema mercuriale.

Erythema Nodo'sum. A form of erythema peculiar to females, consisting of oval patches on the legs which soon rise into hard oval protuberances.

Erythema Papula'tum. Erythema which appears in irregular patches on the neck, arms and breast, and which, in about two weeks disappears, leaving a bluish hue upon the skin.

ERYTHROEI'DES. The tunica vaginalis testis.

ERYTHROID VESICLE. A pyriform vesicle of the fetus, longer, but of the same diameter as the umbilical vesicle.

ERYTHRO'NIUM. See Erythronium Americanum.

Erythronium Americanum. Yellow snake leaf; adder's tongue. A plant possessed of emetic properties.

ERYTHRO'SIS. From ερυθρος, red. Florid plethora.

ES'CHAR. *Eschara;* from εσχαροω, to scab over. The crust or disorganized portion of animal substance produced by the application of caustic.

ESCHAROT'IC. *Escharoticus;*—from εσχαρα, eschar. Any substance, which, when applied to living tissues, is capable of producing an eschar. Among the substances which produce this effect, are the caustic potassa, concentrated mineral acids, sulphate of copper, &c.

ES'CULENT. *Esculentus;* from *esca*, food. Such plants and animals as may be used for food.

ESO-. Εσω, within. A prefix signifying an internal disease.

ESOCOLITIS. Dysentery.

ESOENTERITIS. Inflammation of the lining membrane of the intestines.

ESOGASTRITIS. Inflammation of the inner membrane of the stomach.

ESPHLA'SIS. From φλαω, I break. A fracture of the skull, in which the fragments are depressed.

ES'SENCE. *Essentia.* A volatile oil, obtained from plants by distillation, diluted with alcohol.

ES'SENTIA. An essence; also, a tincture.

ESSEN'TIAL. Pertaining to an essence.

Essential Oil. Any volatile oil.

Essential Salt of Bark. A watery extract of Peruvian bark.

Essential Salt of Lemons. A mixture of cream of tartar and binoxalate of potash.

ES'SERA. *Sora. Sare.* A species of cutaneous eruption, consisting of broad, shining, red spots.

ESTHIOM'ENUS. From εσθιω, I eat. An eroding disease, as some eruptions and ulcers.

ESTI'VAL. *Æstivus.* Pertaining to summer, as summer diseases.

ETHER. Æther. See Æther.

ETHER, ACETIC. An acetate of the oxyd of ethyle. Acetic naptha.

ETHER, CHLORINE. See Chloroform.

ETHER, HYDRIC. Sulphuric ether.

ETHER, HYDROCHLORIC. Æther, hydrochloricus.

ETHER, HYDROCYANIC. Æther, hydrocyanicus

ETHER, HYPONITROUS. Æther, nitrosus. Nitrous ether. Nitric ether.

ETHER, MURIATIC. Æther, hydrochloric. The extremely volatile chloride of ethyle.

ETHER, NITRIC. Æther, nitrosus.

ETHER, ŒNANTHIC. The aromatic liquid which imparts to wines their peculiar odor.

ETHER, SULPHURIC. Æther, sulphuricus.

ETHEREAL. Pertaining to, or of the nature of, ether.

ETHEREAL OIL. Oleum æthereum.

ETHERIFICA'TION. The conversion of fluids into ethers.

E'THERINE. A solid body, deposited from etherole in the cold. It contains the same elements in the same ratio with etherole.

E'THEROLE. An oily product of the decomposition of the sweet oil of wine when heated with water. It is insoluble, and isomeric with olefiant gas.

ETH'MOID *Ethmoides;* from εθμος, a sieve, and ειδος, form. Sieve-like.

ETHMOID BONE. Os ethmoides. One of the eight bones of the cranium, situated between the eyes and ethmoidal notch of the os frontis, of a light cellular texture, and cubical form. It is articulated with the frontal, lachrymal, sphenoid, superior maxillary, palatine, the vomer, and inferior spongy bones.

ETHMOIDAL. Applied to parts which pertain to, or are connected with, the ethmoid bone, as the *ethmoidal cells, ethmoidal arteries,* &c.

ETHULE. Ethyle. A term applied by Berzellius to the elementary carbon and hydrogen of ether.

ETIOLA'TION. *Chlorosis.* The process of whitening plants by depriving them of light, or raising them in the dark.

ETIOL'OGY. Ætiology.

ETTMULLER, C. F. B. Author of a Medical and Surgical Treatise on the Diseases of the Teeth. Leipsic, 1798.

EUÆ'MIA. From ευ, well, and αιμα, blood. A good state of the blood.

EUÆSTHE'SIA. From ευ, well, and αισθησις, perception. Good perception.

EUCALYP'TUS RESINIFERA. An astringent gum resembling kino.

EUCHYM'IA. From ευ, well, and χυμος, juice. A good condition of the humors.

EUCRA'SIA. From ευ, well, and κρασις, temperament. A good temperament.

EUDIOMETER. From ευδια, purity of air, and μετρον, a measure. An instrument for ascertaining the quantity of oxygen or any other gas in a given mixture of gases.

EUDIOMETRY. The art of ascertaining the quantity of any gas contained in a given bulk of atmospheric air.

EUETHES. Benign.

EUEX'IA. From ευ, well, and εξις, constitution. A good constitution.

EUGE'NIA CARYOPHYLLA'TA. The clove tree of India.

EUNUCH. *Eunuchus;* from ευνη, the bed, and εχω, I keep. One who has been castrated, or whose generative organs have been so altered as to render him incapable of reproducing his species.

EUPATHI'A. From ευ, well, and παθος, suffering. Easily affected by pain; also, health.

EUPATO'RIUM. Agrimony. Also, the name of a genus of plants.

EUPATORIUM CANNAB'INUM. Hemp agrimony.

EUPATORIUM PERFOLIA'TUM. Thoroughwort; boneset.

EUPATORIUM PURPU'REUM. Purple-stalked eupatorium. Trumpet weed.

EUPATORIUM TEUCRIFO'LIUM. Wild horehound.

EUPEP'SIA. From εν, well, and πεπτω, I digest. Good digestion.

EUPHLO'GIA. From εν, well, and and φλεγω, I burn. Mild inflammation.

EU'PHONY. *Euphonia;* from εν, well, and φωνη, voice. A good voice.

EUPHOR'BIA CAPITA'TA. An astringent Brazilian plant.

EUPHORBIA COROLLA'TA. The large flowering spurge, or milk-weed.

EUPHORBIA CYPARIS'SIAS. The cypress spurge.

EUPHORBIA IPECACUANHA. Ipecacuanha spurge.

EUPHORBIA LATH'YRIS. The systematic name of the plant which affords the cataputia seeds.

EUPHORBIA OFFICINA'RUM. The systematic name of the plant which affords the euphorbium, an inodorous gum-resin.

EUPHORBIA PALUS'TRIS. The greater spurge.

EUPHORBIA PARALIAS. The sea spurge.

EUPHORBIA'CEÆ. A natural order of exogenous plants, inhabitants of almost all parts of the globe.

EUPHOR'BIÆ GUMMI-RESINA. Euphorbium.

EUPHRASIA OFFICINA'LIS.—Eye-bright.

EUPLAS'TIC. From εν, and πλασις, formation. An epithet employed by Lobstein for the elaborated matter out of which animal tissues are formed.

EURHYTH'MIA. From εν, well, and ρυθμος, rhythm. A regular pulse.

EUSEMI'A. From εν, well, and σημειον, a sign. Favorable signs.

EUSTA'CHIAN TUBE. The tube which forms a communication between the upper part of the pharynx and ear. It is bony and cartilaginous, and lined by a continuation of the mucous membrane of the pharynx. The entrance from the pharynx is indicated by a depression in the mucous membrane.

EUSTACHIAN VALVE. *Valvula eustachii.* A membranous semilunar fold, at the mouth of the inferior vena cava.

EUSTACHIUS. Author of a small Treatise on Anatomy, with a chapter on the Teeth. Venice, 1574.

EUSTHENI'A. Exuberant health.

EUTAX'IA. A constitution in which every part has its proper relation.

EUTROPH'IA. From εν, well, and τροφη, nourishment. Healthy nutrition.

EUTROPHIC. *Eutrophicum.* A term introduced in medical terminology by professor Dungleson, "for an agent whose action is exerted on the system of nutrition, without necessarily occasioning manifest increase of any of the secretions."

EVAC'UANTS. *Evacuantia;* from *e*, and *vacuare*, to empty. Medicines which occasion a discharge from some emunctory, as emetics, cathartics, &c.

EVACUA'TION. *Evacuatio.* Any discharge from the animal body, whether from the natural passages or by an artificial opening, or whether spontaneous or provoked by artificial means.

EVAPORA'TION. *Evaporatio;*—from *e*, and *vaporare*, to emit a vapor. The conversion of a fluid or any other substance into a vapor, for the purpose of obtaining the fixed matters in a separate state, while the volatile parts are dissipated and lost.

EVENTRA'TION. *Eventratio;*—from *e*, out of, and *venter*, the belly. A tumor formed from general relaxation of the walls of the abdomen, and protrusion of the viscera. Also, hernia which takes place through any other than the natural openings of the abdominal walls; and, lastly, the protrusion of the viscera through a wound of the walls of the abdomen.

EVERRIC'ULUM. An instrument used for the removal of fragments of calculus, or coagula of blood, from the the bladder, after the operation of lithotomy.

EVOLU'TION. *Evolutio;* from *evol-*

vere, to unroll. In *Physiology*, increase, growth, or development. Also, that theory of generation which supposes the germ of the new being to exist previously to fecundation, and is only developed by the process of generation.

EVUL'SION. *Evulsio;* from *evellere*, to pluck out. The forcible extraction of any part, as a tooth.

EXACERBA'TION. *Exacerbatio;* from *exacerbare*, to provoke. An increase of intensity in symptoms of a disease which recur at intervals. It is synonymous with paroxysm.

EXÆ'RESIS. From ἐξαιρεω, to remove. The removal of whatever is obnoxious to the human body, as the extraction of a carious or dead tooth, the amputation of a limb, the removal of foreign bodies, tumors, &c.

EXALTA'TION OF THE VITAL FORCES. A morbid increase of action, as that which takes place in an inflamed part. It is used by some authors as synonymous with inflammation.

EXAMBLOMA. Abortion.

EXANGI'A. From ἐξαγγιζω, I evacuate from a vessel. An enlargement or perforation of a blood vessel without external opening. A genus of disease, in the order *dysthetica*, class *hæmatica*, of Dr. Good, which includes *aneurism*, *varix*, and *cyania*.

EXAN'GUIOUS. *Exsanguis;* from *ex*, out of, and *sanguis*, blood. Deficiency of blood, as those who have suffered from hemorrhages.

EXA'NIA. From *ex*, out of, and *anus*. Prolapsus of the rectum.

EXAN'THEM. *Exanthema;* from ἐξανθεω, I flourish. A cutaneous eruption, or rash. It is employed by some writers to designate every sort of eruption that appears on the skin, but Dr. Willan uses it as synonymous with rash.

Exanthem Mercuriale. Eczema mercuriale.

Exanthem Carbuncular. Anthrax.

EXANTHE'MATA. An order of diseases, of the class pyrexiæ, of Dr. Cullen's Nosology.

EXANTHEMATIC. Eruptive.

EXANTHEMAT'ICA. Eruptive fevers—the third order in the class *hæmatica* of Dr. Good.

EXANTHE'SIS. From ἐξανθεω, I effloresce. The breaking out of an efflorescence on the skin; also, the efflorescence itself.

EXANTHROPIA. From ἐξανθρωπος, misanthropic. A misanthrope.

EXARCHIA'TER. *Exarchiatros;* from ἐξαρχος, a leader, and ιατρος, a physician. The first or principal physician.

EXARTICULATION. From *ex*, out of, and *articulus*, a joint. A dislocation.

EXCISING FORCEPS, ELLIOT'S IMPROVED. This improvement consists in placing between the handles of a common excising instrument, a joint, operated by a key handle, which is capable of closing the instrument with a force five or six times greater than can be produced by the hand alone.

Excising Instrument, Elliot's.—An instrument invented by Dr. W. H. Elliot of Montreal, for excising the crowns of teeth, and which is so constructed that a tooth is in no danger of being moved in its socket by the operation. The cutting parts of the instrument are brought together with a force seventy-two times greater than that applied to the handle by the hand.

EXCIS'ION. *Excisio;* from *excidere*, to cut off. The removal of a tumor or other small part with a cutting instrument.

EXCITABIL'ITY. *Excitabilitas.*—The capability of living bodies of being brought into action, under the influence of exciting agents. Irritability.

EXCITANT, A stimulant.

EXCITA'TION. Excitement. The action of excitants upon the living body.

EXCI'TO-MO'TORY SYSTEM. It consists of the fibres of the anterior

and posterior roots of the spinal nerves which are supposed by Dr. Marshall Hall to derive their origin and power of action from the cineritious matter of the spine in which they arise and to be brought into action by exterior agency, independently of the direct power of the will.

EXCORIA'TION. *Excoriatio;*— from *excoriare*, to remove the skin. Abrasion of the skin.

EX'CREMENT. *Excrementum;*— from *excernere*, to separate. All matters evacuated from the animal body by the natural emunctories, as superfluous, as the feces, urine, perspiration, &c., but it is generally applied to the feces.

EXCREMENTI'TIOUS. Relating to, or of the nature of, excrement.

EXCRES'CENCE. *Excrescentia;* from *excrescere*, to grow out. Any preternatural growth, as a tumor, corn, or wart, from an organ or tissue, especially from the skin, mucous membrane, or an ulcerated surface.

EXCRE'TION. *Excretio;* from *excernere*, to separate. The expulsion, by the various outlets of the body, of such matters as are useless, as the urine, feces, perspiration, &c.

EX'CRETORY. *Excretorius.* A vessel or duct which conveys the secreted fluids from the gland which has secreted it.

Excretory Organ. An organ destined for excretion.

EXCU'TIA VENTRIC'ULI. A stomach brush. An instrument formerly used for the removal of foreign bodies from the œsophagus.

EXELCO'SIS. Ulceration.

EXELCYS'MOS. From ἐξ, from, and ἑλκυω, I draw. Extraction.

EXERAM'A. From ἐξεραω, I throw out. The act of vomiting, or the matter vomited.

EX'ERCISE. *Exercitatio;* from *exercere*, to work. The movements of the body, produced by the contraction of muscles, in obedience to the will.

EXERRHO'SIS. From ἐξ, out of, and ῥεω, I flow. The discharge from insensible perspiration.

EXFOLIA'TION. *Exfoliatio;* from *ex*, from, and *folium*, a leaf. Disquamation. The separation or detachment of dead portions of bone, cartilage, fascia, or tendon. The definition, however, is generally restricted to the separation of portions of bone.

EXFO'LIATIVE. Medicines which promote exfoliation. Also, instruments for effecting or accelerating exfoliation.

EXHA'LANT. *Exhalent;* from *exhalare*, to exhale, to throw out. A small vessel which performs the function of exhalation.

Exhalent Vessels. A distinct system of vessels, which, according to Bichat, originate from the capillary arterial system, and are distributed to all the tissues of the body, pouring out on the surfaces of the mucous and serous membranes, and skin, a peculiar fluid.

EXHALA'TION. *Exhalatio.* The emanation which arises from organized and inorganic bodies, in the form of vapor.

EXHAUS'TION. That state of body which results from great fatigue, privation of food, excessive evacuations, great mental effort, anxiety, or from disease. Also, the effect resulting from the removal of air from a vessel with an air pump.

EXHUMA'TION. *Exhumatio;*— from *ex*, and *humus*, the ground. The disinterment of a corpse.

EXIS'CHIOS. From ἐξ, out of, and ἰσχιον, the ischium. Luxation of the thigh bone.

EXO-. Ἐξω, outward. Used as a prefix to other words.

EXO'CHAS. From ἐξω, without, and ἐχω, I have. A tumor at the anus.

EXOCYS'TE. *Exocystis;* from ἐξ, out of, and κυστις, the bladder. Prolapsus of the urinary bladder.

EXOGENOUS. From ἐξ, outside, and γεινομαι, I grow. A term applied to those plants whose vessels are disposed round a cellular substance or pith,

so that the more recently produced parts are in the circumference. They are also called dicotyledons, and constitute one of the primary classes into which the vegetable world is divided.

EXOM'PHALUS. From εξ, out of, and ομφαλος, the navel. An umbilical hernia.

EXONCO'MA. From εξ, and ογκος, a tumor. A large tumor or protuberance.

EXOPHTHAL'MIA. From εξ, out of, and οφθαλμος, the eye. A protrusion of the bulb of the eye.

EXOSMOSIS. From εξ, out of, and ωσμος, impulse. Transudation. The opposite of endosmosis.

EXOSTEMA CARIBBÆUM.—The tree which furnishes the Caribbean or Jamaica cinchona bark.

Exostema Peruvianum. The tree from which the Peruvian bark is obtained.

Exostema Souzanum. The Brazilian cinchona.

EXOSTO'SIS. *Hyperostosis;* from εξ, out of, and οστεον, a bone. An osseous tumor formed on the surface, or in the cavity of a bone. Three varieties are enumerated, namely, *ivory exostosis*, from its resemblance in structure to ivory; *lamelated exostosis*, from its being developed in laminæ, and *spongy exostosis*, from its resemblance in structure, to the tissue of bones.

Exostosis of the Alveoli. The alveoli as well as the teeth, and other osseous structures of the body are sometimes attacked by exostosis, which may develop itself in the form of a bony tumor, or in the thickening of their walls, and a consequent displacement of the teeth. See Displacement of the Teeth.

Exostosis of the Teeth. *Exostosis dentium.* The only part of a tooth subject to exostosis is the root, and the development of the affection usually commences at or near the extremity; extending from thence upwards, it sometimes covers a greater or less portion of the external surface. Occasionally, however, it commences on the side and so great a deposition of osseous matter takes place, that a large irregular tubercle is formed; at other times the bony deposit is diffused regularly over nearly the whole of the root, but more frequently it is irregular. The bony matter thus deposited, is generally harder than the root, and of a faint yellowish semi-transparent appearance.

In treating of the disease, Mr. Thos. Bell says, "whether the bony matter in this case is produced by the vessels of the periosteum, or by those of the tooth itself, cannot perhaps be ascertained, though from analogy there is every reason to believe the former. The substance, which is thus added, differs in appearance from the original bone; it is of a particularly hard, dense texture, of a yellowish hue, and slightly transparent; and the irregular manner in which it is deposited gives it no inconsiderable superficial resemblance to chalcedony. It is undoubtedly occasioned by an increased and irregular action of the vessels, a kind of slow chronic inflammation; the result in most cases, of incipient gangrene, or some similar cause of moderate but continued irritation. Hence its progress is so tardy, that, in most instances, the enlargement of the alveolus by absorption, almost keeps pace with the deposition of new bone; and the pressure which the latter produces is so trifling and gradual, as to occasion no more than a slight, though continued uneasiness; and it is only when the caries has extended to the cavity, and tooth-ache is produced by the exposure of the membrane, that the patient is induced to lose the tooth, and that the true cause of the previous affection is ascertained. In other instances the continued irritation occasions thickening of the periosteum, and afterwards suppuration, and the case becomes one of simple alveolar abscess.

"The pressure arising from this enlargement of the root sometimes produces an affection exactly resembling

tic douloureux. I have seen several cases of this description more or less distinctly characterized, in one of which the affection was of so marked a character, that the constitutional remedies usually adopted in tic douloureux, had been employed for a long time before it was suspected that the cause was local. The tooth was decayed, but the pain, though excessively severe, was so different from tooth-ache, that the medical attendant did not suspect the cause to be in any way connected with the tooth. On examining it, however, I found that although the nerve was not exposed, yet, on striking it smartly with a steel instrument, a sharp pain shot through the jaw, exactly resembling the former attacks; and it is worthy of remark, that this effect was only produced when it was struck in one direction. On the removal of the tooth, the root was found considerably enlarged by exostosis."

One of the most remarkable cases of dental exostosis on record, is related by Mr. Fox. The subject was a young lady, who, at the time she sought the professional advice and aid of Mr. Fox, had suffered so severely and so long, that the palpebræ of one eye had been closed for near two months, and the secretion of saliva had, for some time, been so copious, that it flowed from her mouth whenever it was opened. She had tried every remedy which had been recommended by the ablest medical advisers, without realizing any permanent benefit, and she was only relieved from her suffering by the extraction of every one of her teeth.

From the many cases of painful effects occasioned by exostosis of the teeth, which have fallen under the author's immediate observation, he will mention the following:

Mr. S. of Baltimore, having suffered sometime from pain in the left superior bicuspis, applied to a dentist in 1843, for the purpose of having this tooth removed. In the operation, the root was fractured about three-sixteenths of an inch from its extremity, and the upper part left in the socket, and in consequence of which, he did not realize the relief he had hoped to derive from the operation. The pain continued, and at the expiration of twelve months, the gum over the upper part of the alveolus, became very much swollen, puffing out the lip to the size of half a hen's egg. The tumor, after a few days was opened, and a large quantity of dark-colored, purulent and very fetid matter was discharged, which, for a short time, afforded him considerable relief. The tumor, however, soon reappeared, and was removed some four or five times, by opening it and discharging the matter, in about that number of months.

In the fall of 1845, he called on the author, for the purpose of obtaining his advice. The gum was swollen and the lip and cheek protruded in the manner as above described. The tumor was again opened, and about three tablespoonsful of black matter resembling thin tar escaped. Upon further examination, the outer wall of the antrum, immediately over the upper part of the alveolus of the bicuspis which had been fractured, was destroyed, leaving an opening large enough to admit the end of the forefinger. Believing that the extremity of the root which had been left in the socket was the cause of the disturbance, its immediate removal was strongly urged, but to accomplish this, it became necessary to cut away the outer wall of the alveolus. The root of the tooth, on its removal, was found to be enlarged to the size of a large pea. The secretion of purulent matter soon ceased, and in a few weeks, the patient was completely restored.

The occurrence of exostosis on a single tooth often gives rise to the severest kind of facial neuralgia. The author might enumerate several very interesting cases which have fallen under his own immediate notice, but he will conclude his remarks on the effects which sometimes result from the disease, by

quoting the following case from Mr. Bell, he says,

"Mr.—— had for some months suffered severe and frequent paroxysms of pain on the left side of the face, apparently commencing in the second inferior bicuspis, and darting through the lower jaw to the ear, and upwards to the temple. The pain resembled tic douloureux in the nature of its attacks, but was evidently produced by a local rather than a constitutional cause, from the paroxysms occurring without the least periodical regularity, and from their being excited by the application of heat to the teeth of that part. On the most careful examination, however, I could not discover the least appearance of caries in any of the teeth, and, I therefore ordered leeches to be applied to the gum, and aperient medicines and abstinence from all stimulating food. This plan was productive of only temporary and partial relief, and in about two days the pain was as severe as ever. Finding that a smart blow on the second bicuspis produced a more painful sensation than on any of the teeth, I determined on extracting it, and found the extremity enlarged by a deposition of bone, giving to it a slightly bulbous shape, but not larger than the tip of a small quill. The newly added bone was yellower and more transparent than the original structure, as is generally the case in this disease. The removal of the tooth was followed by immediate and entire relief."

In the Museum of the Baltimore College of Dental Surgery, are some very remarkable examples of dental exostosis. In one, a present from Dr. G. E. Hawes, of New York, the three superior molar teeth of one side, are united by a deposit of bony matter. In another, and a present from Dr. Blandin of Columbia, S. C. two upper molares are united. In a third, and a present from Dr. Ware, of Wilmington, N. C. there is a deposition of bone on the roots of a first superior molaris as large as a hickory nut, and on the root of a cuspidatus, placed there by the author, the deposition of osseous matter forms a bulb at its apex, the size of a large pea. But besides the above, there are in this institution many other very marked examples of the disease.

The cause of exostosis of the teeth does not appear to be very well understood. Most authors attribute it to inflammation of the periosteum of the fang, which Mr. Bell believes is produced, in most cases, by caries of the affected tooth. That it is the result of increased action in the periosteal tissue, is, we believe, admitted by all, though not as a result or consequence of caries, inasmuch as it often attacks the roots of teeth which are perfectly sound.

The disease having once established itself, does not admit of cure, and when it has progressed so far as to be productive of pain, the loss of the affected tooth becomes necessary. But as the prognosis is exceedingly obscure, its existence can only be inferred from the unpleasant symptoms to which it gives rise.

When the enlargement is very considerable and confined to the extremity of the root, and has not been followed by a corresponding enlargement of the alveolus around the neck of the tooth, its removal is often attended with difficulty, and can only be effected by cutting away a greater or less portion of the socket.

EXOT'IC. *Exoticus;* from ἐξω, without. That which comes from a foreign country. In *Natural History* and *Medicine*, animals, plants and medicinal agents which are procured from abroad.

EXPAN'SION. *Expansio;* from *expandere*, to spread out. The dilatation of an expandible body; the increase of bulk or size which it undergoes by recession of its particles from one another. In *Anatomy*, the prolongation or spreading out of an organ, or structure, as of aponeuroses.

EXPEC'TANT MEDICINE. A

theory which restricts practitioners of medicine to the observation of disease, without any effort to control or arrest its progress, leaving the cure to the efforts of nature, unless very alarming symptoms occur.

EXPEC'TORANT. *Expectorans;* from *ex*, out of, and *pectus*, the breast. A medicine which promotes expectoration.

EXPECTORA'TION. *Expectoratio.* The act by which mucus and other fluids are expelled from the respiratory passages.

Expectoratio Sanguinis. Hæmoptysis.

EXPELLANT. An expulsive.

EXPE'RIENCE. *Experientia.* The knowledge of things acquired by long practice.

EXPER'IMENT. *Experimentum.* In *Medical Science*, a trial made upon man or other animals with a view of making discoveries in the structure or functions of organs, or for the purpose of testing the effects of a new medicinal agent, or unknown alimentary substance.

EXPIRA'TION. *Expiratio;* from *expirare*, to breathe out. The expulsion of the air from the lungs.

EX'PIRATORY. *Expirationi.* An epithet, applied to those muscles, which, by their contraction, diminish the cavity of the chest and thus effect the expulsion of air from the lungs.

EXPLORA'TION. *Exploratio;* from *explorare*, to search into. The act of investigating the physical signs of disease, with the eye, hand, and stethescope.

EXPLORA'TORIUM. A sound.

EXPRESSED OIL. An oil obtained by pressing.

EXPRES'SION. *Expressio;* from *exprimere*, to press out. The separation, by pressure, of the fluids which a substance contains. Also, the manner in which impressions are depicted upon the countenance.

EXPUL'SIVE. *Expellens;* from *expellere*, to drive out. In *Surgery*, a bandage used for the expulsion of pus or other fluid from a part. Also, applied to medicines which are supposed to have the power of driving the humors towards the skin.

EXSANGUIN'ITY. From *ex*, out of, and *sanguis*, blood. Bloodless. Applied to persons who have little blood.

EXSER'TUS. Protruding, sometimes applied to teeth which protrude. See Dens Exsertus.

EXSICCA'TION. Drying.

EXSPUIT'ION. From *ex*, out of, and *spuo*, I spit. Spitting.

EXSTROPH'IA. *Exstrophy;* from ἐξ, out of, and στροφη, turning. The displacement of an organ, especially the urinary bladder.

EXTEMPORA'NEOUS. From *ex*, and *tempore*, out of time. Medicines compounded from written prescriptions made on the spot or at the bedside of the patient, and not by formulæ.

EXTENSIBIL'ITY. *Extensibilitas.* Capable of being extended.

EXTEN'SION. *Extensio;* from *extendere*, to stretch out. In *Surgery*, the pulling of a limb for the reduction of a fracture or dislocation.

EXTENSOR. In *Anatomy*, an epithet applied to a muscle whose function is to extend or straighten certain parts.

Extensor Brevis Digitorum Pedis. A muscle of the toes, situated on the foot.

Extensor Carpi Radialis Brevis. An extensor muscle of the wrist.

Extensor Carpi Radialis Longus. An extensor muscle of the carpus.

Extensor Carpi Ulnaris. A muscle which arises from the outer condyle of the os humeri and from the edge of the ulna, and is inserted in the metacarpal bone of the little finger.

Extensor Digitorum Communis. A large flat muscle of the forearm which extends to the fingers.

Extensor Digitorum Longus. See Extensor Longus Digitorum Pedis.

Extensor Longus Digitorum Pedis.

A muscle of the leg, extending to the joints of the four small toes.

Extensor Magnus. The gastrocnemius muscle.

Extensor Ossis Metacarpi Pollicis Manus. A muscle of the wrist situated on the forearm.

Extensor Primi Internodii. A muscle of the thumb, situated on the hand.

Extensor Proprius Pollicis Pedis. An extensor muscle of the great toe.

Extensor Secundi Internodii. A muscle of the thumb.

Extensor Secundi Internodii Indicis Proprius. See Indicator.

Extensor Tarsi Magnus. The gastrocnemius and soleus muscles.

EXTENUATIO. Emaciation.

EXTERNUS AURIS. The laxator tympani muscle.

EXTINCTION OF MERCURY. The trituration of mercury with other substances, as lard, until its metallic globules disappear.

EXTIRPA'TION. *Exterpatio;* from *extirpare,* to root out. The complete removal of a part, (applied generally to a morbid structure) by excision, or with caustic.

EXTIRPA'TOR. A name applied to an instrument invented by Mr. C. T. Goodwin of Philadelphia for the extraction of the roots of cuspid teeth. It is shaped something like the common straight punch which is sometimes employed for the removal of roots of teeth.

EXTRACT. *Extractum;* from *extrahere,* to draw out. In *Pharmacy,* a tenacious substance, obtained by the evaporation of a vegetable solution. Also, a substance held in solution by the juice of a fresh plant, as well as that to which some menstruum has been added at the time of its preparation.

EXTRAC'TION. *Extractio;* from *extrahere,* to draw out. In *Chemistry,* the separation of a simple or compound substance from a body of which it forms a part. In *Surgery,* the act of removing foreign or diseased bodies or organs, from any part of the body, as a urinary calculus from the bladder, a bullet or splinter from a wound, or a tooth from the jaw.

Extraction of Teeth. "Of all the remedies," says Desirabode, "for diseases of the teeth, there is none which has been used so long as their extraction; for, not only is it spoken of in formal terms, by Hippocrates, who also attempts to correct the abuses to which it might lead; but a passage in Cicero designates Esculapius, the third of that name, as the person by whom it was first proposed."

Although the extraction of a tooth is generally regarded as an operation of comparatively little importance, there are few operations in surgery, that excite stronger feelings of dread, and to which most persons submit with greater reluctance. Many endure the tortures of tooth-ache for weeks and months together, rather than undergo the operation of having a tooth extracted. This, with many persons, is the last resort, and the accidents that daily result from the operation, in the hands of the ignorant and unskilful, have contributed no little to excite the fears of almost every one. The extraction of a tooth, however, when the operation is performed by a skilful hand, and with a suitable instrument, is both safe and easy, but if attempted by an ignorant and inexperienced practitioner, it may be attended with serious and even dangerous consequences.

Indications for the Operation.

With regard to the indications which should determine the propriety of the operation in question, the author does not deem it necessary to say much, in this place, upon the subject, as they are so fully pointed out in other articles of the work. But, lest some of them may be overlooked, he will briefly mention in this connection, a few of the circumstances which call for the operation.

Beginning with the teeth of first den-

tition, it will be sufficient to state that when a tooth of replacement is about to emerge from the gums, or has actually made its appearance, either before or behind the corresponding temporary, the latter should, at once, be removed; and when the aperture formed by the loss of this is so narrow as to prevent the former from acquiring its proper position, it may sometimes be even necessary to extract an adjoining temporary tooth; but, for more explicit directions upon this subject, the reader is referred to what has been said on the management of second dentition. Alveolar abscess, necrosis of the walls of an alveolus, and pain in a temporary tooth, which cannot be assuaged by any of the usual remedies, may, also, be regarded as indications which call for the removal of these teeth.

With regard to the indications which should determine the extraction of a permanent tooth, the following may be mentioned, as constituting the principal:

First, when a molaris, from the loss of its antagonizing teeth, or other causes, has become partially displaced, or is a source of constant irritation to the surrounding parts, it should be removed.

Second, a constant discharge of fetid matter through a carious opening in the crown from the nerve cavity, and the canal of the root of a tooth, may, also, be regarded as an indication calling for the operation under consideration.—There may, however, be circumstances which would justify a practitioner in yielding to the wishes of, or, even advising his patient to permit the retention of such a tooth; as, for example, when the discharge of fetid matter from it is not very considerable, and it is situated in the anterior part of the mouth and cannot be securely replaced with an artificial substitute. The secretion of fetid matter, too, may, in some cases, by judicious treatment, be prevented; in this case, the tooth may, perhaps, be preserved for many years, by plugging, and the morbid influence, which it would otherwise exert upon the surrounding parts, be wholly counteracted. But, it is only in the fewest number of cases that such favorable results can be secured. A front tooth should not be sacrificed unless called for by some very urgent necessity, but neither an upper incisor nor cuspidatus, should be permitted to remain in the mouth, if it exerts a manifest morbid influence upon the surrounding parts. In this case the effects resulting from its retention in the mouth might be worse than the loss of the tooth.

Third, a tooth which is the cause of alveolar abscess, should not, as a general rule, be permitted to remain in the mouth, but, as in the case last described, if it be an incisor or cuspidatus, and the discharge of matter through the gum is small, occurring only at long intervals, and especially if the organ cannot be securely replaced with an artificial substitute, it may be advisable to permit it to remain. But an abscess in the socket of a bicuspis or molaris, may be considered as constituting a sufficient indication for the removal of a tooth.

Fourth, irregularity in the arrangement of the teeth, resulting from a disproportion between the size of the teeth and alveolar arch, is another indication which calls for the operation. But, with regard to the teeth which it is most proper to remove, the reader is referred to the article on irregularity of these organs. Here he will find full directions for the management of cases of this kind.

Fifth, all dead teeth and roots of teeth, and teeth which have become so much loosened from the destruction of their sockets as to be a constant source of disease to their adjacent parts, or teeth which are otherwise diseased, and are a cause of neuralgia of the face, a morbid condition of the maxillary sinus, dyspepsia, or any other local or constitutional disturbance, should, as a general rule, be extracted.

There are other indications which call for the extraction of teeth, but, the foregoing are among the most common, and will be found sufficient in most cases, to determine the propriety or impropriety of the operation. Cases are, however, continually presenting themselves, to which no rules that could be laid down would be found applicable, and where enlightened judgment only, can determine the propriety or impropriety of the operation.

In conclusion, it is hardly necessary to say, that whenever a tooth can be restored to health, it should always be done, but the tampering with such as cannot be rendered healthy and useful, and which by remaining in the mouth would exert a deleterious influence, not only upon the adjacent parts, but, also, upon the general health, cannot be too strongly deprecated.

We may also add, in the words of Desirabode, that "the operation of extraction should never be performed until the dentist has ascertained, with certainty, the diseased tooth. If a shadow of doubt remains, no effort should be spared, which can tend to dissipate it. After the patient has pointed out the tooth which he supposes to be the seat of pain, it should be examined with the eye or a small mirror, to ascertain the extent of the decay, and then moved slightly with the thumb and finger; if this should not excite pain, it should be struck with a hard body, such as a plugging instrument; cold water should be taken into the mouth, and brought in contact with it; or another means should be employed, which, though more painful, is still more certain; the cavity should be explored with a small instrument, which will furnish a certain indication of the condition of the tooth."

A neglect of the above precautions has often led to the removal of a tooth which was not the cause of pain, or which, by proper treatment might have been restored to health and rendered useful.

Accidents which sometimes Result from the Operation.

The extraction of a tooth, though, in the majority of cases, a simple operation, is, nevertheless, sometimes attended by trifling accidents, which, the most skilful and prudent, cannot always avoid. The conformation or condition of a tooth is sometimes such, as to render its removal, without fracturing it, or the alveolus, impossible, but no accident of a serious nature need ever occur if the operation be performed with a suitable instrument, and by a skilful practitioner, except such perhaps as may result from a hemorrhagic diathesis of the general system, or from peculiar states of the constitutional health.

Among the accidents which have been recorded, or have otherwise come to the knowledge of the author, as having occurred from the extraction of teeth, it may be well to particularize a few examples.

Dr. Fitch relates the case of a man residing in Botetourt county, Va. who, in having a tooth extracted by a blacksmith, the second superior molaris of the right side, had a large portion of the jaw and five other teeth removed at the same time. "The fangs of this tooth," says Dr. F. "were greatly birfurcated and dovetailed into the jaws, and would not pass perpendicularly out, though a slight lateral motion would have moved them instantly. The jaw proved too weak to support the monstrous pull upon it, and gave way between the second molar tooth and first molar, and, instantly, both the anterior and posterior plates of the antrum gave way. The fracture continued to the spongy bones of the nose, and terminated at the lower edge of the socket of the left front incisor, carrying out with the jaw, six sound teeth, namely, the first molar, the two bicuspides, one canine, one lateral, and one front incisor, six in all. The soft parts were cut away with a knife. A severe hemorrhage ensued, but the

patient soon recovered, though with excessive deformity of his face and mouth."*

Dr. Cross, of Jackson, Northampton county, North Carolina, related to the author, in 1838, a case so very similar, to the one just quoted, that he was inclined to believe it was the same, until he recollected that one occurred in Virginia, and the other in the county in which Dr. C. resides. The operator in this, as in the other instance, was a blacksmith, who, in attempting to extract one of the superior molar teeth, brought away a piece of the jaw, containing five other teeth, together with the floor, and the posterior and anterior walls of the antrum. The piece of bone thus detached, is now in the possession of a physician residing about eight miles from Jackson.

We have adverted to these cases, merely to show the impropriety and danger of entrusting the operation to individuals possessing neither knowledge of its principles, nor skill in its performance. Injuries of the jaws, occasioned by the operations of such persons, have frequently come under the immediate observation of the author, to whom it has always been a matter of surprise, that an operation to which such an universal repugnance is felt, should ever be confided to such persons.

The removal of a wrong tooth, or of two, and even three, instead of one, are such common occurrences, that it were well if the precautions given by the illustrious Ambrose Paré, met with more strict attention. So fearful was he of injuring the adjacent teeth, that he always isolated the tooth to be removed, with a file, before he attempted its removal. He regarded it as of the greatest importance, that a person, who extracted teeth, should be expert in the use of his "tooth mullets; for," says he, "unless he knows readily and cunningly how to use them, he can scarcely so carry himself, but that he will force out three teeth at once." Although great improvements have been made, since his time, in the construction of instruments for the extraction of teeth, yet even now, accidents similar to those to which he alludes, are of almost daily occurrence.

It is truly surprising, that an operation which is so frequently required as this, should receive so little attention from medical practitioners, by whom, though not strictly belonging to their province, it must frequently be performed. This neglect can only be accounted for, by the too general prevalence of the supposition, that little or no surgical tact is necessary for its performance. But every physician residing in the country, or where the services of a skilful dentist cannot always be commanded, should provide himself with the proper instruments, and make himself acquainted with the manner of performing the operation.

But a few months ago, the author was sent for by Mr. G., of Baltimore, to extract one of the first left inferior molares, which had been fractured a few weeks previously, in an attempt made by a dentist to extract the tooth, and left in the socket. Violent inflammation supervened, which soon terminated in the formation of an alveolar abscess. The matter, in making for itself an outlet to escape, perforated the wall of the lower part of the cheek, traversed the cellular tissue back to the angle of the jaw and neck, where a sac was formed large enough to contain half a pint, and which quantity, as we were informed, had been discharged, daily, for several days. With much difficulty he succeeded in removing the adjoining or second molar, which had become involved in the diseased action, and in a few days after, the roots of the tooth which had been fractured, when a cure was effected.

In another case which fell under the observation of the author, the lower

* Fitch's Dental Surgery, p. 347.

jaw, between the first and second molares, had been fractured by an awkward attempt to extract the second molar with a key instrument, and which, from the violent inflammation that supervened, was followed by necrosis of the posterior part of the jaw. At the time she was brought to him, the fractured extremity of the necrosed portion of the bone had perforated the cheek and protruded exteriorly. The subject of this last case was a girl of a cachectic habit, about fourteen years of age.

But besides accidents of this nature, the gums are often badly bruised and lacerated, when the proper precaution of separating them from the tooth, previously to extracting it, is not observed, or where improper instruments are employed. Many cases of this sort have fallen under the observation of the author, and the particulars of one was related to him a few months since, by professor Handy, in which a large portion of the soft palate had been torn away, by an individual, who, to numerous other occupations, united that of tooth-drawing.

M. Duval and M. Desirabode, have each published a considerable number of cases of accidents which have resulted from the extraction of teeth, but it would be out of place here to enter into more extended details upon this subject. In the directions which will be given on the manner of performing the operation, the necessary precautions for the prevention of accidents in its performance, will be given.

Instruments Employed in the Operation.

A description of the various instruments employed in the extraction of teeth will be found, each, under its appriate name.

Manner of Extracting Teeth with the Key of Garengeot.

The key of Garengeot, although, for a long time, almost the only instrument used for the extraction of teeth, has, recently, to a very great extent, been superseded by forceps, which, when of the proper construction are far preferable. But inasmuch as it still holds a place among the instruments employed in the operation, it will be proper to describe the method of using it. Before we proceed to do this, however, it may be well to observe, that its use is restricted to the molar and bicuspid teeth.

The directions required for the use of the key are few and simple; but, as cases frequently present themselves to which no general rules can be applied, much will depend on the practical judgment and surgical tact of the operator. The first step to be taken in the operation, after having placed the patient in a good light, and selected a hook with a curvature proportioned to the size of the tooth, is, to separate the gum from the neck of the tooth down to the alveolus, all round. For this purpose, suitable gum lancets or knives should be provided. On the approximal sides of the tooth, a straight narrow bladed knife, pointed at the end, and with one cutting edge, will be found most convenient and effectual, in performing this part of the operation, and it should be used, as described by Dr. Maynard, by passing the point in between the neck of the tooth and gum, down to the alveolus, with its back downwards, and cutting from the direction of the roots towards the coronal extremity of the tooth. In this way, the adhesion of the gum to the approximal sides of the neck of the tooth may be thoroughly severed. The same kind of knife or common gum-lancet, may be used for separating the gum from the lingual or palatine, and outer sides of the tooth. If this precaution be neglected, there will be danger of lacerating the gum in the removal of the tooth.

After the tooth has been thus prepared, the key, with the proper hook attached, should be firmly fixed upon it; the bolster, on the inside, resting upon

the edge of the alveolus, the extremity of the claw, on the opposite side, pressed down upon the neck. The handle of the instrument should now be grasped with the right hand, and the tooth, by means of a firm, steady rotation of the wrist, raised from its socket. In order to prevent the claw from slipping, (an accident that too frequently occurs,) it should be pressed down with the forefinger or thumb of the left hand of the operator, until, by the rotation of the instrument, it becomes securely fixed to the tooth.

If the tooth be situated on the left side of the mouth, the position of the operator should be at the right side of the patient; but, if it be on the right side of the mouth, he should stand before him.

For the removal of a tooth, on the left side of the lower jaw, or the right side in the upper, the palm of the hand should be beneath the handle of the instrument; and, *vice versa*, in the extraction of one on the right side in the lower jaw, or on the left side in the upper. The manner of grasping the instrument is, perhaps, of more consequence than many imagine. If it be not properly done, the operator loses, to a great extent, his control over it, and applies the power to it disadvantageously.

The directions here given are, in some respects, different from those laid down by other writers; yet we are convinced, from much experience, that they will be found more conducive to the convenience of the operator and the success of the operation, than those usually given for using this instrument.

There is a great diversity of opinion, as to whether a tooth should be removed inwards or outwards. Some direct the fulcrum of the instrument to be placed on the outside of the tooth, others on the inside, while others again, regard it as of but little importance on which side it is placed. But experience has taught the author that the fulcrum should, generally, be placed on the inside, especially of the lower teeth, as they almost always incline towards the interior of the mouth. Moreover, the alveolar parietes of these teeth are usually a little higher on the exterior edge of the jaw than on the interior; so, that the first motion of the instrument, with its fulcrum on the outside, brings the side of the tooth against the socket, and thus, nearly double the amount of power is required to remove it; while, at the same time, the pain of the patient, and the chances of injury to the alveolus are very much increased.

The alveolar walls of the upper teeth are, generally, thinner than those of the lower, and thus do not afford so strong a support to the fulcrum of the instrument.

It is, however, frequently necessary to place the bolster of the instrument on the outside of the tooth; especially when it is decayed in such a way, as not to afford a sufficiently firm support for the claw of the instrument on this side of the tooth. But, whenever it is possible to remove a tooth inwards, it should always be done.

Manner of Extracting Teeth with Forceps.

In describing the manner of extracting teeth with forceps, the author will begin with the incisores and cuspidati of the upper jaw.

Incisores and Cuspidati of the Upper Jaw.—The patient seated, the gum should be completely separated from the neck of the tooth, which should then be grasped with a pair of straight forceps, with thin crescent-shaped jaws, made sufficiently concave on the inside as not to press upon the crown of the tooth. This done, the tooth should be firmly forced outwards and inwards several times in quick succession, giving it at the same time a slight rotary motion, and as soon as it is found to yield, it should be removed from the socket by a vertical effort.

If the tooth be much decayed, it

should be grasped as high up under the gum as possible, and no more pressure applied than may be necessary to prevent the forceps from slipping. By neglecting this precaution, teeth are often unnecessarily crushed.

The position of the operator, while extracting the above mentioned teeth, should be at the right of the patient, as, indeed, it should be for the removal of any of the others with forceps, as it enables him to control his head with his left arm, and to separate the lips with the hand of the same. Sometimes, however, it may be necessary for him to change his position a little, and occupy one partly behind his patient, but more to the right than to the left side. One or other of these positions he may always occupy, if his forceps be of the proper construction.

Incisores of the Lower Jaw.—The directions which have been given for the extraction of the upper incisores and cuspidati, will, for the most part, be found applicable for the removal of the incisores of the lower jaw; but forceps of a somewhat different construction are required. The jaws should not be more than one-third as wide, and they should be bent downwards, so as to form an angle of thirty degrees with the handles of the instrument; for, if they are straight, the hand of the operator will frequently come in contact with the teeth of the upper jaw, inasmuch, as the lower incisores generally incline inwards.

Superior and Inferior Bicuspides and Inferior Cuspidati.—The roots of the upper bicuspides being considerably flattened and often bifid, will seldom admit of much rotary motion. But in the extraction of one of these teeth after the gum has been separated, and the tooth grasped as high upon its neck as possible, the connection with the alveolus is, first, to be partially broken up by several quick motions outwards and inwards, then by a downward effort, it may, in most cases, be easily removed from its socket. In the extraction of a lower bicuspis, or inferior cuspidatus, a slight rotary motion joined to the outward and inward movement, will facilitate the destruction of the bond of union between the tooth and alveolus, it may, by an upward force, be removed from the socket. But one pair of forceps is required for the removal of the upper and lower bicuspides and lower cuspidati; the beak of these should be bent in the same manner as those used for the extraction of the lower incisores. The jaws, however, should be about twice as wide, and thin and crescent shaped.

Upper Molares.—These teeth having three roots, generally require more force for their removal than the incisores, cuspidati, or bicuspides, of either the upper or lower jaw, and in the majority of cases, more than is called for in the removal of the inferior molares; and two pair of forceps, one for the right, and one for the left side, are also needed. The directions for the removal of these, however, are few and simple. The gum should be separated in the manner as before described, and the tooth then grasped with the appropriate forceps, as high up under the gum as possible, and after having thoroughly loosened it by an outward and inward movement, repeated a sufficient number of times, it may be removed by a downward effort from the socket. The head of the patient during the operation should be firmly confined with the left arm of the operator against the back or head-piece of the operating chair, while the corner of the mouth is retracted with the fingers of the left hand, and one of which should, when practicable, be placed on either side of the tooth.

Upper Dentes Sapientiæ.—These teeth are generally less firmly articulated than either the first or second superior molares, and consequently are more easily removed. But the directions for the removal of the one will be found applicable for the removal of the other. In most cases, however, forceps of a different shape and construction are re-

quired for their extraction. When they occupy a vertical position, and have crowns as long as the second molares, the bicuspid forceps will be found as well adapted for their removal as any that can be employed, but when their crowns are shorter than those of the second molares, a forcep invented by the late Dr. Edward P. Church, and described in another place, should be used.

Lower Molares.—Although the inferior molares have but two roots, they are sometimes very firmly articulated, requiring considerable force for their extraction, but for the removal of the first, one pair of forceps only, are required, provided they are of the proper construction. In applying them, after having first separated the gum, the points at the extremity of the jaws should be forced between the roots or into the groove a little above where they are given off, as far as possible, and after having obtained a firm hold, the tooth should be forced outwards and inwards several times in quick succession, or until the tooth moves freely, when it should be lifted from the socket. If the crown of the tooth has been destroyed by caries, the upper edge of the alveolus should be included between the beak or jaws of the instrument, through which they may readily be made to pass, on applying pressure to the handles, and by this means a secure hold upon the tooth will be obtained, when it may generally be easily extracted.

Lower Dentes Sapientiæ.—The dentes sapientiæ of the lower jaw when situated far back under the coronoid process, are often exceedingly difficult to extract, but with forceps having crescent shaped beaks like those used for the removal of the bicuspides, they may generally be easily grasped, except in those cases where the crown has been destroyed by caries, and in this case it may sometimes be necessary to cut away a portion of the upper edge of the alveolus, either with forceps or a sharp instrument, previously to attempting the removal of the tooth. It occasionally happens, too, that the roots of a lower dens sapientiæ are bent in such a manner as to constitute a formidable obstacle to its removal. But when this happens they are usually turned posteriorly towards the coronoid process, so that after starting the tooth, if it is found that it cannot be raised perpendicularly from the socket, an obstacle of this sort may be suspected, and to overcome which, the crown of the tooth should be forced backwards, so as to make the organ, in its evulsion, describe the segment of a circle.

In the foregoing directions, the author has supposed the arrangement and formation of the teeth to be natural. It sometimes happens that the roots of the first and second molares as well as those of the dentes sapientiæ, are either bent, diverge or converge in such a manner as to render their extraction exceedingly difficult. Indeed, it cannot always be done without fracturing the roots, or alveoli, and sometimes bringing away a portion of the latter, especially when the roots, after diverging, converge and come nearly or quite together at their apices. Sometimes it is necessary to cut away a portion of the alveolus before the tooth can be removed, which may be done either with forceps constructed for the purpose, or with a sharp and strong pointed instrument. Similar obstacles are occasionally met with in the removal of the bicuspides and cuspidati. At other times the extraction of a tooth is rendered very difficult by the enlargement of the root by exostosis. It occasionally happens, too, that when a tooth has decayed on one or both of its approximal surfaces, that the adjoining tooth or teeth have so impinged upon it as to lock it in the jaw, and to attempt to extract it without first filing away a portion of the adjoining teeth would be to fail in the operation or to bring away two or more teeth at the same time.

The dens sapientiæ of the lower jaw sometimes occupy a horizontal position, the root being lodged in the base of the coronoid process while the grinding surface of the crown is in contact with the posterior surface of the crown of the second molar. In these cases, it will often be necessary to extract the latter before removing the former.

Other obstacles sometimes present themselves in the extraction of teeth which the judgment and tact of the operator alone, can enable him to overcome. To point out all of which is impossible. The nature and peculiarity of each case, can alone suggest the method of procedure most proper to be pursued in the performance of the operation. The practitioner should never hesitate, when it may be necessary to enable him to obtain a firm hold upon the tooth, to remove a portion of the alveolus, or to include it between the jaws of the forceps. The removal of the upper edge of the socket of a tooth, is never productive of injury, as it is always, soon after the extraction of the organ, destroyed by a peculiar operation of the economy. By this means, when the crown of a tooth has become so much weakened by disease as not to bear the necessary amount of pressure, it may, in almost every case, be immediately removed; and that too, without inflicting upon the patient, half the pain that would be caused by its removal in any other way.

In the extraction of the temporary teeth, the operator should be careful to not injure the pulps of the permanent ones, or the alveolar border, as accidents of this sort sometimes occur.

Extraction of Roots of Teeth. The extraction of roots of teeth is sometimes attended with considerable difficulty; but generally, they can be more easily removed than whole teeth, and especially those of the molares, for after the destruction of their crowns, an effort is usually made by the economy to expel them from the jaws. This, as has been stated in another place, consists in the gradual destruction and filling up of the socket, by a deposition of ossific matter at the bottom, whereby the articulation of the root becomes weakened, and its removal rendered proportionably easier. The alveolar cavities are often wholly obliterated in the course of two or three years after the destruction of the crowns of the teeth, and the roots retained in the mouth, simply by their connection with the gums, so that for their removal, little more is necessary than to sever this bond of union with a lancet or sharp-pointed knife.

It sometimes happens, however, that they are deeply lodged in the alveoli, requiring considerable force for their removal, often defeating the efforts and placing at defiance the skill of the timid and inexperienced practitioner; and for the extraction of which a great variety of instruments have been invented, among which are a pair of narrow-beaked forceps, like those mentioned for the removal of the lower incisores, a hook, punch, elevator and screw. See Forceps, Elevator, Punch and Screw for the Extraction of Teeth. Although almost every dentist has these instruments made to suit his own peculiar fancy, the manner of using them, and the principal upon which they act are the same. It will, therefore, be sufficient to observe, that they should be of convenient size, made of good steel, and so tempered as neither to bend nor break.

But for the skilful use of these instruments considerable tact is required, and this can be acquired only by practice. In using the punch and elevator, great care is necessary to prevent them from slipping and wounding the mouth of the patient. When, therefore, either of these instruments are used, the forefinger of the left hand of the operator should be wrapped with a cotton or linen rag, and placed on the side of the root opposite to that against which the instrument is applied, so as to catch the point

in case it should slip. This is a precaution which should never be omitted.

For the removal of the roots of the bicuspid and molar teeth, and often for those of the cuspidati and incisores, the narrow-beaked forceps, to which allusion has before been made, is the most efficient and successful instrument that can be employed. In using it for the extraction of a root which does not protrude from the alveolus, the gums should be separated from the latter, and so much of it as may be necessary to obtain a secure hold upon the former, included between the jaws of the beak of the forceps, which, from their being very narrow, readily pass through it, and a firm hold at once obtained upon the root; when, after moving it a few times, outwards and inwards, it may be easily removed from the socket. There are some cases, however, in which the punch, hook and elevator may be advantageously used. We have also occasionally met with cases where we have succeeded in removing roots of teeth with great ease, with an elevator shaped like the blade of a knife, by forcing it down into the socket by the side of the root, and then turning it so as to make the back press against the former and the edge against the latter. When an elevator of this sort is used, the blade should not exceed an inch in length; and it should be straight, sharp at the point and have a very thick back, in order to prevent it from breaking in the operation. In using the common elevator, it is necessary that there should be an adjoining tooth or root, to act as a fulcrum. When this can be obtained, a root, or even a whole tooth, may sometimes be removed with it; but as a general rule the forceps should be preferred to any of these instruments.

For the extraction of the roots of the upper front teeth, after they have become so much funnelled out by decay, as to render their walls incapable of sustaining the pressure of forceps, the screw is invaluable. This is of a conical shape, and with it, a sufficiently firm hold can be obtained for the removal of a root, by screwing it up into the cavity. But before it is introduced, the softened decomposed bone on the inner walls of the root should be removed with a conical three cornered instrument of the size of the screw.

But the compound screw forceps, invented by Dr. S. P. Hullihen of Wheeling, Va., is a much better instrument for the removal of the roots of the superior incisores and even cuspidati, than the simple screw, inasmuch as it combines the advantages of both the screw and forceps. See Forceps, compound screw.

For the extraction of the roots of the upper molares, before they have become separated from each other, Dr. Maynard has invented two pair of very valuable forceps, one for the right and one for the left side of the mouth. See Forceps, Dr. Maynard's. Dr. Elliot has also invented a very ingenious instrument for the extraction of roots of molar and bicuspid teeth.

The hook can only be advantageously employed for the removal of the roots of the molar teeth upon the left side of the mouth, and the manner of using it, is as follows: After having separated the gum from the root, the hook is forced down on the outside, and held firmly in place, with one or more of the fingers of the left hand, while with the handle of the instrument in the right, it is gradually forced from the socket. But as forceps can be used more efficiently for the removal of roots of teeth on which the hook can be made to act, this latter instrument is not, at present, in much repute.

Extraction of Teeth situated out of the Range of the Dental Arches. In treating of the removal of such teeth, Desirabode says, whatever may be their situation "their extraction requires the greatest care," for, "if they are placed immediately behind or in front of other teeth, these latter may,

in some degree, be loosened by the effort; and if they are situated at a distance from the dental range, there is danger of the instrument slipping, in consequence of the difficulty of taking hold of them, or, in extracting them, of seriously injuring the surrounding parts." "For this reason, it is important, that in extracting such teeth as are situated near the alveolar border, they should be removed with instruments acting in a straight line, without causing a circular movement, which might have the effect of compromising the firmness of those regularly situated before or behind them. When they offer a sufficient hold, forceps are peculiarly adapted to their extraction; the straight forceps, when they are situated in front, and the curved, when they are situated behind the dental range, particularly in the lower jaw. The precaution should always be observed to sustain the adjacent teeth, by placing the fingers upon their crowns, so that the operator may be apprised of their slightest movement."

"But when these teeth are simple tubercles, as is generally the case with supernumerary teeth, it will be difficult to take hold of them with forceps; it will be necessary then, to introduce a lever (elevator) between them and the regular teeth when they are near them, or into the socket, if they are too far off to allow a fulcrum to be made of them. In such cases as the last, it is often better, we repeat, to excise than to extract them." As the recommendation of this latter procedure is so obviously opposed to correct practice, inasmuch as the presence of a root in the jaws is always necessarily productive of more or less irritation, keeping up so long as it is permitted to remain, a morbid action in the surrounding parts, the author would observe, that it would be far preferabe for the purpose of effecting its removal at once, to cut away a sufficient portion of the socket, to enable the operator to obtain a firm hold upon it with forceps. But this is rarely necessary, as it seldom happens, that the bulb of the crown of a supernumerary tooth is situated within the alveolus, and consequently all that is necessary to secure a firm hold upon it with forceps, is, to force the instrument up on it to the alveolus, when by a slight rotary motion it may generally be easily removed.

But for the removal of such teeth, it often becomes necessary to have forceps constructed expressly for individual cases. Without doing this, it will be impossible to have such as are adapted to the various peculiarities which different cases present.

Extraction of Concealed Teeth. It sometimes happens that teeth are developed in other parts than the alveolar border, and remain out of sight, occasionally giving rise to severe local irritation; and it more frequently happens that they remain buried in parts adjacent to the place which they should occupy in the alveolar border. "These teeth, however," as Desirabode justly observes, "almost always ultimately make their appearance; but the difficulty with which their eruption is effected is often troublesome enough to constitute a state of disease, and their presence is frequently the cause of phenomena, the true character of which, may be completely misunderstood." Numerous examples of this sort are on record. But so variable is the place which they occupy, that no specific directions can be laid down for their extraction. The method of procedure can alone be determined by the circumstances connected with each individual case. The following cases, however, will serve to convey some idea of the effects liable to be produced by such teeth, and of the manner of their removal. The first is taken from the author's own practice.

In 1834, he was requested to visit and also to extract a tooth for Miss C. of about twenty-five years of age, of Baltimore, which was supposed to have some connection with a distressing neuralgic affection with which she had

been afflicted for several years. The tooth was the second right superior molaris, but not perceiving any indications of disease in it, after a careful and thorough examination, he was induced to believe that it had no agency in the production of the neuralgic affection with which she was troubled, but on being informed that the pain always commenced in the immediate vicinity of this tooth, he was induced to make a second examination. Observing that the wisdom tooth had not yet made its appearance, and that the gum back of the second molaris was very full and prominent, it occurred to him that its eruption had been prevented by some cause, and that its presence in the alveolar border had given rise to the painful affection under which she had, for so long a time, been laboring. The gum was laid open and the wisdom tooth found occupying a horizontal position, the grinding surface in contact with the posterior surface of the second molaris, and the roots presenting posteriorly. As only about two-thirds of the tooth was embedded in the jaw, it was easily removed with an elevator. The extraction of this tooth was immediately followed by a subsidence of the neuralgic pains.

The following case was communicated to the author by his brother, Dr. John Harris, in 1845. Mr. ——, about twenty-five years of age, applied to him for advice in relation to an affection of the inferior maxillary with which he had been troubled for some months, and about which he had previously consulted several physicians and surgeons. From the gums and periosteal tissue on the lingual side of his teeth on one side of his lower jaw, a fungous tumor had originated. It was at first supposed to have resulted from carious teeth, but upon examination, it was found that the second bicuspis of the affected side had made its appearance on the inner edge of the base of the jaw, buried in the soft parts of the floor of the mouth. The situation of the tooth was such as to preclude the possibility of taking hold of it with forceps of the ordinary construction. He, therefore, had a pair bent below the joint in the form of a hook, and with these, after having exposed the tooth, he succeeded in grasping, and removing it.

The two following cases are quoted from Desirabode:

"In 1828, a lady about thirty or thirty-two years of age, came to consult us about pain, sometimes very intense, which she suffered in all the left side of the superior jaw, and which had continued for six years, keeping her in a state of irritability which the slightest emotion transformed into a nervous crisis. Amongst the physicians who had visited her, some had pronounced this pain the result of some rheumatic affection, the sheet-anchor of many practitioners in doubtful cases; others explained the case by saying it was a lesion of the fifth pair of nerves, against which no natural treatment could be successfully directed. What seemed to give more probability to this last opinion was, the fact that when the greatest exacerbation of the pain occurred, the hearing became obtuse and the face animated.

"Tired out with the diversity of opinion, and especially with the failure of the treatment advised, this lady had consulted several dentists, who, at this period, enjoyed the greatest reputation. None of them ventured to give an opinion as to the cause of the pain, and all, after a careful examination, had the good sense to refuse to remove one or any of the teeth which the patient begged, earnestly, to have extracted, but which nothing presented by their appearance, to the gentleman, authorised their removal. We were in all points of this last opinion, and the patient left us, as little satisfied, of course, with us as with the rest of those upon whom she had called.

"We saw nothing of her for about two

years; but, in 1830, we recognized her, in company with a young girl, ten or twelve years of age who had been brought to obtain our opinion with regard to her two superior central incisores, which seemed about to take a bad direction. We felt at liberty to make some inquiries of her in relation to the results of the painful affection of the face which had been the occasion of the honor of our first interview with her. She replied, that the pain she then suffered had continued to increase, and that at last she had made up her mind to resort to one of those dentists *who do not reason*, and who complacently extract all teeth they are requested to extract. We begged her to permit us to make a second examination. In examining the teeth on the left side of the superior jaw, we discovered that one of the small molars was missing; this fact had escaped us the first time, and this proves that in making examinations of this kind, too much care cannot be taken if it is desired to avoid the commission of injurious mistakes.

"Then turning our attention, carefully to the alveolar border, we discovered that it was not only thicker than it is ordinarily, but that there was a hard and circumscribed tumefaction, which corresponded to a place between the remaining small molar and the first of the three large molares. From this moment we had no further doubt that this part of the alveolar contained the missing tooth, and when we expressed this opinion to the patient, she desired that we should take steps without delay to make certain of the presumed fact. A slight incision was made with the bistoury upon the most projecting part of the tumor, the kind of resistance to the instrument, which we experienced, left no doubt, and authorized us to push our examination farther, and we soon discovered a small molar lying transversely with the crown forward. It was easily loosened with a curved lever, introduced between it and the posterior face of the tooth in front of it, and then extracted with a pair of curved forceps. The wound suppurated for six or eight days, after which healed, and the pain disappeared permanently.

"In 1813, a man having a fibrous tumor, situated in the middle of the roof of the mouth, came to consult Laforgue.* From time to time, a whitish odorless matter escaped from the side of this tumor which was about the size of an ordinary cherry-stone. A number of surgeons who had seen the case, were of the opinion that the roots of the incisor teeth, (still in place,) either caused or sustained this affection. The crowns of these teeth were gone, having been destroyed by softening and caries. Laforgue removed three of these roots and left one, at the right side, which was firm and not at all painful. None of the roots presented evidence of being either directly or indirectly, through their surrounding alveolar tissue, connected with the affection of the palate, which fact Laforgue communicated to the patient. Suppuration from the side of the tumor recommenced. This tumor was cauterized with the actual cautery twice in the space of ten days by Boyer. Pelletan was of opinion that it was a case of caries of the jaw; Dubois, that the remaining root was the cause of the continuance of the disease, and advised its extraction. Dupuytren was also of the latter opinion. Before leaving the patient, however, Dupuytren observed, that although the alveolar border was free from any indications of disease, it was thicker than is commonly the case after the teeth have been lost. He, accordingly, made an incision of the gum, over the part which projected most; this point corresponded with the alveolus of the lateral incisor of the right side, but he found neither fluid nor anything to direct his attention to the cause of the affection. The root was extracted by Laforgue, who discovered, what

*Vide l'Art du Dentiste.

it was impossible to distinguish previously to its extraction, as it was almost covered with the gum, that it was the root of a small molar tooth. The condition of the alveolar periosteum and of the root, satisfied him that it was not the cause of the tumor of the palate. As he had previously extracted several roots, amongst which was not that of the canine tooth, which gave no evidence of its existence, and as the patient asserted, positively, that he had had none of the roots extracted, except by him, Laforgue was led to believe that the canine tooth was situated along the alveolar border. He told the patient, of his suspicions, and was begged by him to have a consultation with Dupuytren, which was agreed to.

"The grounds upon which Laforgue came to this conclusion were, that, notwithstanding the loss of the incisor teeth and root, the alveolar border had not diminished in size, but, on the contrary, it was so much enlarged as to lead to the belief that some body was contained within it. The patient possessed a great deal of firmness, submitted himself into their hands and allowed them to make the necessary examination. The result was, that the canine tooth was found situated in the same place from which the roots had been extracted, but a little posteriorly.

"The crown was towards the left side, the point touched against the alveolus of the canine tooth of this side; the root was turned toward the right side and behind the root of the small molar which had been extracted in the morning; the external face was turned downward. The tooth was incrusted, about two-thirds of its whole length, and adherent to the maxillary bone. The extraction was affected with a pyramidal lever, the point being placed upon the posterior face of the tooth; the triturating surface of the left small molar which was supported by Dupuytren, during the operation, was made the fulcrum. The operation was performed slowly and gently, without the production of much pain. All the effects, of which it was the cause, rapidly passed away, and the wounds healed without any other remedies than an emollient gargle used the first two days, and afterwards honeyed wine."

We might multiply cases of this sort if it were necessary, but the foregoing will suffice.

General Rules to be Observed in the Extraction of Teeth.

In recapitulating the rules applicable for the extraction of teeth, Desirabode says, "Whatever tooth or root is to be extracted, whatever place it may occupy, or whatever instrument may be used for this purpose, the certainty of the success of the operation is just in proportion to the precaution observed by the operator, first to take a sure hold of the tooth, and then to obtain a firm fulcrum for his instrument. It is particularly important to obtain a solid fulcrum, when the lever is used, for otherwise, it may escape from the part to which it is applied and wound the adjacent parts; the forefinger should be placed near the point of the instrument, in order as it were to watch over its movements.

"We have said that the tooth should be seized as far up upon the root as possible, and the question now presents itself, whether it is necessary first to lay bare this portion, that is, whether the gum, which is adherent to the neck, should be separated from it and pushed upward or downward, as the case may be, to give place to the instrument. The older dentists never failed to take this precaution, which they regarded as the first step in the operation. For this purpose they used an instrument which was called, and which is still named, *dechaussoir;* this was a steel shaft, solidly fixed in a handle, with a blade of some five or six lines, and terminating in a point—in a word, the same instrument now used for opening abscesses situated far back in the mouth, and to

incise the gums when they present an obstacle to the free eruption of the teeth."

This very important precaution is recommended by Desirabode, as well as by most other French writers, except in those cases where it becomes necessary to prevent seizing the tooth between the jaws or hook of the instrument, but it is requisite not only to enable the operator to obtain a firmer hold upon the tooth, and also to prevent lacerating the gums. The author has known it to be torn from the alveolar border for more than an inch, in some cases where it has been neglected. The free and complete separation of the gums from the tooth or root should always constitute the first step in the operation.

After having grasped the tooth firmly, the operator should proceed slowly in his efforts to remove it, gradually increasing the force until it is perceived to move in the socket, and in the traction which he may find it necessary to use in its removal, as any sudden and violent effort may result either in the fracture of the tooth or alveolus. We would, therefore, say, in the language of the author from whom we have just quoted, "that a tooth cannot be satisfactorily extracted, if its adhesion to the jaw is not overcome by a force which, increasing gradually, causes its attachments to yield without damage to the adjacent parts. It results, in consequence of a deviation from this princple, that accidents without number occur, that teeth are so frequently broken in their sockets, and that sometimes considerable fractures of the jaw occur. In operating, then, the degree of force used should be increased, and an effort made, by raising the hand, to draw the tooth in a direction as nearly perpendicular as possible; in a word, less force than address should be used."

Of the importance of the foregoing precautions, M. Gariot seems to be fully apprised. He says, "In the extraction of teeth, there is a physical principle which should not be lost sight of, that every time a body is distended more quickly than it yields, it will break. For this reason, the effort to effect the extraction of a tooth should be gentle, moderate, continuous and without the least sudden impulse. If this important observation is not lost sight of, teeth will rarely be broken, an accident which is of trifling character, but one which is sufficient to ruin the reputation of a dentist who may have much merit." Many examples of accidents which have resulted from too much precipitancy in the performance of the operation might be cited, but we will not enlarge further upon the subject.

EXTRAC'TIVE. In *Chemistry*, a peculiar, immediate principle in extracts, supposed to consist of combinations of acid, coloring matter, and an azoted body.

EXTRAC'TUM. An extract.

Extractum Aconi'ti. Extract of aconite.

Extractum Aconiti Alcohol'icum. Alcoholic extract of aconitum.

Extractum Al'oes Purifica'tum. Purified extract of aloes.

Extractum Anthem'idis. Extract of chamomile.

Extractum Artemi'siæ Absin'thii. Extract of wormwood.

Extractum Belladon'næ. Extract of belladonna.

Extractum Belladonnæ Alcoholicum. Alcoholic extract of belladonna.

Extractum Cascaril'læ Resino'sum. Alcoholic extract of cascarilla.

Extractum Catharticum. Extractum colocynthidis compositum.

Extractum Cincho'næ. Extract of cinchona.

Extractum Cinchonæ Resino'sum. Resinous extract of bark.

Extractum Colocyn'thidis. Extract of colocynth.

Extractum Colocynthidis Composi'tum. Compound extract of colocynth.

Extractum Conii. Extract of hemlock.

Extractum Conii Alcohol'icum. Alcoholic extract of hemlock.

Extractum Digit'alis. Extract of foxglove.

Extractum Dulcama'ræ. Extract of bitter sweet.

Extractum Elate'rii. Extract of elaterium.

Extractum Folio'rum Sabinæ. Extract of savine.

Extractum Gentia'næ. Extract of gentian.

Extractum Glycyrrhi'zæ. Extract of liquorice.

Extractum Hæmatox'yli. Extract of logwood.

Extractum Helle'bori Alcoholi'cum. Alcoholic extract of black hellebore.

Extractum Hellebori Nigri. Extract of black hellebore.

Extractum Hu'muli. Extract of hops.

Extractum Hyoscy'ami. Extract of henbane.

Extractum Hyoscyami Alcoholi'cum. Alcoholic extract of henbane.

Extractum Jala'pæ. Extract of jalap.

Extractum Jalapæ Resino'sum.—Resinous extract of jalap.

Extractum Juglan'dis. Extract of butternut.

Extractum Krame'riæ. Extract of rhatany.

Extractum Lactu'cæ. Extract of lettuce.

Extractum Nucis Vomi'cæ. Extract of nux vomica.

Extractum Opii Purifica'tum. Extract of opium.

Extractum Papav'eris. Extract of white poppy.

Extractum Pareiræ. Extract of pareira.

Extractum Podophyl'li. Extract of may-apple.

Extractum Quassiæ. Extract of quassia.

Extractum Quercus. Extract of oak bark.

Extractum Qui'niæ. Impure sulphate of quinine.

Extractum Rhei. Extract of rhubarb.

Extractum Rutæ. Extract of rue.

Extractum Sarsaparil'læ. Extract of sarsaparilla.

Extractum Saturni. Solution of acetate of lead.

Extractum Stramo'nii. Extract of stramonium.

Extractum Uvæ Ursi. Extract of bearberry.

Extractum Valeria'næ. Extract of valerian.

EXTRA'NEOUS BODIES. From *extra*, without. *Corpus externum.* In *Hygiene*, all substances, whether solid, liquid, or gaseous, animate or inanimate, introduced from without, or formed in the body, without constituting any part of the organism.

EXTRAVASA'TION. *Extravasatio;* from *extra*, out of, and *vas*, a vessel. Escape of fluids, especially blood and serum, from their proper vessels, and infiltration or affusion of the same into the meshes of the surrounding textures.

EXTREM'ITY. *Extremitas.* In *Anatomy*, the limbs, as the upper and lower extremities, but in common language, the end or point of any thing. Also, applied to the last moments of life.

EXTRIN'SIC. *Extrinsecus*, external, outward. In *Anatomy*, applied to the external muscles of certain organs, as the ear, tongue, &c.

EXTROVER'SION. Extroversion, as of the bladder turned inside out.

EXUDA'TION. *Exudatio;* from *exudo*, to sweat out. A sweating or discharge of a fluid or moisture from the skin, the surface of a membrane, an ulcer, &c. Also, the discharge of the juices from a plant, moisture from the earth, &c.

EXULCERA'TION. *Exulceratio;* from *exulcero*, to cause to ulcerate. Incipient ulceration.

EYE. The globular organ which occupies the cavity of the orbit, constitut-

ing the especial apparatus of vision. Its appendages are the eyelids, cilia, lachrymal apparatus, &c. The globe of the eye is composed of membranes arranged one within the other, and humors enclosed by them. It is moved by four straight, and two oblique muscles. With the exception of the optic, it is principally supplied with nerves from the opthalmic ganglion.

Eye-Glass. An optical instrument used to assist vision.

Eye-Stone. The opercula of small spiral shells, used to remove particles from between the lids and globe of the eye.

Eye-Teeth. The cuspidati of the upper jaw are so called because their roots extend nearer to the orbit than any of the other teeth.

F.

F. In *Chemistry*, the symbol of fluorine. In *Medical Prescriptions*, it is used as an abbreviation of *fiat* or *fiant*, let it, or them, be made.

FABA. From φαω, to feed. A bean.

FABA'RIA. See Sedum Telephium.

FABRA'RUM AQUA. Forge water.

FACE. *Facies.* The anterior part of the head, consisting of the forehead, eyes and eyebrows, nose, cheeks, lips and chin. In an *Anatomical* point of view, it consists of that portion of the head situated below and in front of the cranium.

Face, Bones of. The face is formed of fourteen bones; namely, the *two superior maxillary*, the *two malar*, the *two ossa nasi*, the *two ossa unguis*, the *vomer*, the *two ossa palati*, the *two ossa spongiosa*, and *the inferior maxillary*. To these may be added the *os frontis*, and thirty-two teeth.

FACIAL. *Facialis.* Belonging to the face, as the facial nerve, facial neuralgia, &c.

Facial Angle. See Angle, facial.

Facial Artery. The third branch of the external carotid. It ascends to the sub-maxillary gland, behind which it passes on to the bone of the lower jaw—thence it goes in front of the masseter muscle to the angles of the mouth, and, finally, terminates at the side of the nose by anastomosing with the opthalmic arteries.

In its course it gives off the submental, inferior labial, superior and inferior coronary arteries—which mainly supply the elevators, depressors, and circular muscles of the mouth, or those agents concerned in the first steps of digestion—the prehension of food.

Facial Nerve. The facial nerve arises from the medulla oblongata between the corpus olivare and restiform, close by the lower margin of the pons-varolii—it then passes forwards and outwards with the portio-mollis, to the foramen auditorium internus, which it enters and passes on to the base of this opening; here these two nerves separate, the mollis going to the labyrinth of the ear, while the facial enters the aqueduct of Fallopius, where it is joined by the vidian; it then goes on in a curved direction outwards and backwards behind the tympanum, where it parts with the vidian, and proceeds to the stylo-mastoid foramen, into which it emerges.

At this point it sends off three branches: 1. The *posterior auricular;* 2. The *stylo-hyoid;* 3. The *digastric.* The posterior auricular ascends behind the ear, crosses the mastoid process to the oc-

cipito-frontalis muscle. The stylo-hyoid is distributed to the stylo-hyoid muscle, and the digastric to the posterior belly of the digastric muscle.

The facial nerve being deeply embedded in the substance of the parotid gland, divides into two branches, a superior and inferior; these have frequent unions called the *pes anserinus*, or *porotidian plexus*, and send branches to the whole of the side of the face.

The upper branch, called the temporo-facial, ascends in front of the ear upon the zygoma, supplying the sides of the head, ear and forehead, and anastomosing with the occipital and supra-orbital nerves—a set of branches pass transversely to the cheek, rami malares, furnishing the lower eyelid, lips, side of the nose, and uniting with the infra-orbitar nerve.

The inferior, or cervico-facial branch descends, supplying the lower jaw and upper part of the neck, giving off the following branches: 1. The *maxillary*, which passes the ramus of the jaw and masseter muscles to the lower lip and its muscles; 2. The *sub-maxillary*, which passes along the base of the lower jaw, supplying the muscles which arise from this part; 3. The *cervical*, which go to the platysma and superficial muscles of the neck.

Facial Vein. The vein which returns the blood of the facial artery. It generally descends obliquely on the face to the external or internal jugular.

Facial Neuralgia. See Neuralgia Faciei.

FACTI'TIOUS. *Factitius;* from *facere*, to make. That which is made by art. Artificial, as factitious teeth, &c.

FACULTY. *Facultas.* The power by which any function is executed. In *Medical Colleges*, the professors.

FÆCES. The plural of *fæx*. Alvine excretions. Also, dregs, or sediment.

FÆCULA. See Fecula.

FÆX. An excretion. Also, a sediment.

FAGA'RA OCTAN'DRA. The systematic name of the tree which affords the tacamahaca, a resinous substance of a delightful fragrant odor.

Fagara Piperi'ta. A plant found in Japan and the Philippine islands, the berries of which are called Japan pepper.

FAGO'PYRUM. See Polygonum Fagopyrum.

FA'GUS. The beech. The name of a genus of trees.

Fagus Casta'nea. The systematic name of the chestnut tree.

Fagus Castanea Pumila. The chinquapin.

Fagus Sylvat'ica. The systematic name of the beech tree.

FAINTING. See Syncope.

FAL'CIFORM. *Falciformis;* from *falx*, a scythe, and *forma*, resemblance. Applied to parts of the body which resemble a scythe.

Falciform Process. The falx. A process of the dura mater which separates the hemispheres of the brain.

FAL'CO. From *falco*, a falcon. A genus of accipitres diurnal birds, as the eagle, hawk, falcon, &c.

FALLING SICKNESS. Epilepsy.

FALLOPIAN LIGAMENT. Poupart's ligament.

FALLOPIAN TUBE. See Tube, Fallopian.

FALSE. *Falsus.* Pseudo; spurious. That which is not pure. Adulterated. A deviation from nature.

False Membrane. A morbid product resembling a membrane, formed from an exudation of coagulable lymph. They are produced in croup, pleurisy, &c.

False Passage. An accidental passage sometimes made in carelessly performed operations, as in the introduction of a catheter when armed with caustic.

FALSIFICATION. From *falsus*, false, and *facere*, to make. Adulteration.

FALX. A scythe. See Falciform Process.

Falx Cerebelli. A triangular pro-

cess of the dura mater between the lobes of the cerebellum.

Falx Cerebri. The falciform process.

Falx Major. The falx cerebri

Falx Minor. The falx cerebelli.

Falx Peritonei. The great falx of the peritoneum. A process of the peritoneum extending from the umbilicus.

FAMES. Hunger.

FAMILY. In *Natural History*, a collection of a number of genera, allied to each other by common characters, and having a close affinity in organization.

FANCY MARK. Nævus.

FANON. A peculiar splint employed in fractures of the lower extremities.

FANTOME. See Phantom.

FARCY GLANDERS. See Equinia.

FARFARA. See Tussilago Farfara.

FARI'NA. From *far*, corn, of which it is made. Meal or flour.

Farina Amygdalarum. Almond powder.

Farina Fossilis. The agaricus mineralis—a pure carbonate of lime or mountain milk.

Farinæ Resolventes. Resolvent flours.

FARINA'CEOUS. Resembling flour. All alimentary substances which contain *farina*.

FARINO'SUS. Farinaceous.

FAS'CIA. From *fascis*, a bundle. A bandage, fillet, or roller. Also, an aponeurosis, or tendonous expansion which binds parts together.

Fascia Aponeurotica Femoris.—See Fascia Lata.

Fascia Cribriformis. A fibrous substance, pierced with numerous openings, extending from Poupart's ligament over the inguinal glands.

Fascia Dividens. A dividing bandage, used to keep parts separated from each other.

Fascia Ili'aca. An aponeurotic covering of the psoas and iliacus muscles.

Fascia Inguinalis. The spica bandage.

Fascia Lata. The fascia of the the thigh, which is attached superiorly to Poupart's ligament, the crest of the ilium, sacrum, coccyx, tuberosity of the ischium, ramus of the ischium, and pubes; and inserted into the linea aspera of the thigh, and to the prominent points of the knee-joint.

Fascia Lata Muscle. The tensor vaginæ femoris, a muscle of the upper and outer part of the thigh.

Fascia Propria. The proper cellular envelop of a herniàl sac.

Fascia Sculteti. A bandage of separate strips.

Fascia Spiralis. A spiral bandage.

Fascia Superficialis. The aponeurotic covering of the abdominal muscles.

Fascia T-formis. The T bandage.

Fascia Tortilis. A tourniquet.

Fascia Transversa'lis. A cellulofibrous membrane, which lines the inner surface of the transversalis muscle.

FASCIAL. *Fascialis*. Of, or belonging to, a fascia.

FASCIATIO. The binding up with bandages a diseased or wounded part.

FASCIC'ULI TERETES CORDIS. The carneæ columnæ.

FASCIC'ULUS. From *fascis*, a bundle. In *Anatomy*, an assemblage or bundle of fibres, either muscular, nervous, or aponeurotic. In *Pharmacy*, a handful, and in *Botany*, a number of flowers closely arranged, in which the short and straight pedicles have attained nearly the same level as in sweet-william.

FASCIOLA. Diminutive of *fascia*. A genus of entozoa. The fluke-worm.

Fasciola Cinerea. The tuberculum cinerium.

FASTIDIUM CIBI. Disgust. Aversion to food.

FASTING. Abstaining from food. Loss or want of appetite without any other apparent affection.

FAT. A concrete oil contained in the cellular membrane of animals.

FATTY. *Adipose. Adiposus.* Relating to, or of the nature of, fat.

Fatty Liver. *Adiposis hepatica.* A diseased state of the liver, characterized by increase of bulk, and accumulation of fat.

Fatty Ligament. A reflection of the synovial membrane of the knee-joint, which passes from the ligamentum patellæ to the cavity that separates the condyles of the femur.

FATU'ITY. *Fatuitas;* from *fatuus,* foolish. Idiotism.

FAU'CES. The plural of *faux.* The pharynx and posterior part of the mouth.

FAUCHARD, PIERRE. An eminent French dentist, who flourished in Paris in the eighteenth century. To this able man modern dentistry may be said to owe, if not its origin, yet its first systematic and scientific organization as a specialty of surgery. From the fact that his opinions and observations have been quoted with the greatest consideration by almost all the numerous writers who succeeded him, it is evident that he was one of those masters in science, who appear from time to time in every department of intellectual inquiry, and whose extraordinary capacity and acuteness enable them to prepare, in the brief space of their active life, material for the full occupation of generations of ordinary men who succeed them. He found the dental art a rude branch of mechanics, he left it a digested systematic branch of the curative art; and though his own practice was far inferior in excellence and elegance to that of our day; though his instruments were rude, and the many appliances of his art very deficient in completeness and nicety of adaptation, yet considering all the circumstances under which he lived, Fauchard deserves to be affectionately remembered as a noble pioneer and sure founder of dental science. That his practice was rude was due to his times; that it was scientific, and comparatively superior and successful, was due to himself.

The writings of this celebrated dentist are comprised in two volumes, and entitled, the Surgeon Dentist, or Treatise on the Teeth. The first edition of this work was publishad as early as 1728, and the third and last, in 1786.

FAUX. In the plural, *fauces.* The opening of the throat.

FAVO'SUS. From *favus,* a honeycomb. Resembling a honeycomb.

FA'VUS. A honeycomb. Applied to a state of ulceration resembling the honeycomb.

FAY. A Description of the Mode of using the Forceps invented for the Extraction and Excision of Teeth, by. London, 1827.

FE. The symbol of iron.

FEBRES. *Febris.* An order in the class *pyrexiæ* of Dr. Cullen, characterized by fever without primary local affection.

FEBRICOSUS. Feverish.

FEBRIC'ULA. Diminutive of *febris.* A slight degree of fever.

FEBRIF'EROUS. From *febris,* fever, and *fero,* I carry. Fever-bearing. Engendering fever.

FEB'RIFUGE. From *febris,* a fever, and *fugare,* to drive away. A medicine which possesses the property of curing or abating fever.

FE'BRILE. *Febrilis.* Caused by, or connected with fever, as a febrile pulse, &c.

FEBRIS. From *ferveo,* to be hot. *Pyrexia,* fever. A term which has been applied to every case of disease in which there is an acceleration of pulse, increased heat, thirst, &c.

Febris Acmastica. Synocha.

Febris Alba. Chlorosis.

Febris Algida. Algida febris. A malignant remittent, characterized by icy coldness of the skin.

Febris Amatoria. Chlorosis. Hectic fever.

Febris Americana. Yellow fever.

Febris Amphimerina. A quotidian ague.

Febris Ampullosa. Pemphigus.

Febris Anabatica. Continued fever.

Febris Anginosa. Angina.

Febris Angiotenica. Synocha.

Febris Aphonica. Aphonic fever.

Febris Aphthosa. Aptha.

Febris Ardens. Synocha.

Febris Asodes. Bilious fever. See Asodes.

Febris Bullosa. Pemphigus.

Febris Carcerum. Jail fever. Typhus gravior.

Febris Castrensis. Camp fever.

Febris Catarrhalis. Catarrhal fever.

Febris Catarrhalis Epidemica.—Influenza.

Febris Causodes. Synocha.

Febris Cholerica. Bilious fever.

Febris Contagiosa. Typhus fever.

Febris Continua. Continued fever. Synochus.

Febris Continua Putrida. Synochus.

Febris Continua Icterodes Caroliniensis. Yellow fever.

Febris Culicularis. Miliary fever.

Febris Diaria. Ephemera.

Febris Elodes. See Elodes.

Febris Epiala. A fever accompanied by irregular shivering.

Febris Epidemica Cum Angina.—Cynanche maligna.

Febris Erysipelatosa. Erysipelas.

Febris Esserosa. Miliary fever.

Febris Exanthematica. An eruptive fever.

Febris Flava. Yellow fever.

Febris Gangrænodes. Gangrenous fever.

Febris Gastrica. Gastric fever. Bilious fever.

Febris Gastro-Adynamica. Gastro-adynamic fever.

Febris Hectica. Hectic fever.

Febris Hectica Maligna Nervosa. Typhus mitior.

Febris Hepatica. Bilious fever.

Febris Hepatica Inflammatoria. Hepatitis.

Febris Horrifica. See Febris Algida.

Febris Hunga'ria. Hungarian fever.

Febris Hydrocephalica. Internal hydrocephalus.

Febris Hydro'des. Fever with profuse perspiration.

Febris Hydrophobica. Hydrophobic fever.

Febris Hysterica. Hysteric fever.

Febris Iliaca Inflammatoria. Enteritis.

Febris Inflammatoria. Synocha. Inflammatory fever.

Febris Intermittens. Intermittent fever.

Febris Intestinalis Ulcerosa.—Typhus fever.

Febris Intestinorum. Enteritis.

Febris Lactea. Milk fever.

Febris Larvata. Masked fever.

Febris Lenta. Hectic fever. Synochus.

Febris Lenta Nervosa. Typhus mitior, or nervous fever.

Febris Lethargica. Apoplectic fever.

Febris Lochialis. Lochial fever.

Febris Maligna. Malignant fever.

Febris Maligna Biliosa. Yellow fever.

Febris Maligna Cum Sopore. Typhus gravior.

Febris Marasmodes. Hectic fever.

Febris Miliaris. Miliary fever.

Febris Morbillosa. See Rubeola.

Febris Mucosa. Adeno-meningeal fever. Mucous fever.

Febris Mucosa Verminosa. Infantile remittent fever.

Febris Nautica Pestilentialis.—Typhus gravior.

Febris Nephritica. Nephthritic fever.

Febris Nervosa. Nervous fever.

Febris Nosocomiorum. Typhus gravior.

Febris Palustris. Marsh fever.

Febris Periodica. Periodic fever.

Febris Pestilens. Plague.

Febris Pestilentialis. Pestilential fever.

Febris Petechialis. Typhus gravior.

Febris Phthisica. Hectic fever.

Febris Pleuritica. Pleuritis.

Febris Puerperum. Puerperal fever.

Febris Purulenta. Purulent fever.

Febris Putrida Nervosa. Typhus gravior.

Febris Putrida Sanguinea. Typhus mitior.

Febris Quartana. Quartan fever.

Febris Quintana. Quintan fever.

Febris Quotidiana. Quotidian fever.

Febris Remittens. Remittent fever.

Febris Remittens Infantum. Infantile remittent fever.

Febris Rheumatica Inflammatoria. Acute rheumatism.

Febris Rubra. Scarlatina.

Febris Rubra Pruriginosa. Urticaria.

Febris Sanguinea. Synocha.

Febris Sapropyra. Typhus gravior.

Febris Scarlatinosa. Scarlatina.

Febris Scorbutica. Scorbutic fever.

Febris Synocha. Inflammatory fever.

Febris Tabida. Coliquative hectic fever.

Febris Tertiana. Tertian fever.

Febris Tropica. Yellow fever.

Febris Typho'des. Typhoid fever.

Febris Urticaria. Nettle rash.

Febris Variolosa. Variola fever.

Febris Vesiculosa. Erysipelas.

Febris Virginum. Chlorosis.

FECES. Fæces.

FECULA. An immediate principle of vegetables, obtained by grinding or bruising them in water, and composed of hydrogen, carbon and oxygen. An impure starch.

Fecula Amylacea. Starch.

Fecula Marantæ. Arrow-root starch.

FEC'ULENCE. *Fæculentia.* The deposit from turbid fluids. Dregs.

FEC'ULENT. Excrementitious. Of the nature of feces, or dregs.

FECUNDA'TION. *Fecundatio;* from *fecundo*, to make fruitful. Impregnation. The act by which the germ contained in the organs of the female, receives from those of the male, the vivifying principle necessary for its development.

FECUN'DITY. The faculty of reproduction, possessed by organized bodies.

FEIGNED DISEASES. Pretended diseases. Diseases simulated by impostors to answer some particular end, as by beggars, to excite sympathy, criminals, to escape punishment, and soldiers, to avoid service.

FEL. Bile.

Fel Bovinum. The bile of an ox.

Fel Naturæ. Aloes.

FELLIS OBSTRUCTIO. Jaundice.

FELON. See Paronychia.

FEMALE. From *fœmina*, a woman. In animals, the one which bears the fetus.

FEMEN. Inner part of the thigh.

FEMI'NEUS. Female.

FEM'ORAL. *Femoralis;* from *femur*, the thigh bone. Pertaining to the thigh.

Femoral Artery. The artery of the thigh. A continuation of the external iliac artery from Poupart's ligament, to the bend of the knee.

Femoral Bone. The os femoris. The thigh bone.

Femoral Hernia. Hernia cruralis.

FEMORALIS. The triceps cruris muscle.

FEM'ORO-TIB'IAL. *Femoro-tibialis.* Belonging to the femur and tibia.

FEMUR. The os femoris, or thigh bone.

FENES'TRA. A window. A term applied by anatomists to two orifices in the ear.

Fenestra Oculi. The pupil of the eye.

Fenestra Ova'lis. An oval-shaped orifice, covered by the base of the stapes, between the tympanum and vestibule of the ear.

Fenestra Rotunda. A round foramen, communicating with the internal spire of the cochlea, closed by a delicate membrane.

FENESTRAL BANDAGE. A bandage perforated for the escape of pus or other matters.

FENESTRATE. Having the appearance of a window; applied to plants in which the leaves are perforated between the woody fibres.

FENNEL. Anethum fœniculum.

Fennel, Dog's. Anthemis cotula.

Fennel, Sweet. Anethum (fœniculum) dulce.

Fennel, Water. Phellandrium aquaticum.

FERINE. *Ferinus.* Savage, brutal. Applied to a malignant or acute disease.

FERMENT. In *Chemistry*, an insoluble precipitate, compound of oxygen, hydrogen, carbon and azote, capable of exciting fermentation in certain solutions, as sugar, &c. In *Humoral Pathology*, an imaginary principle, supposed to be introduced into the system and by exciting fermentation, to deteriorate the fluids, and cause diseases

FERMENTA'TION. *Fermentatio.* An intestinal movement, developed spontaneously, or by the agency of yeast or some other ferment, in a liquid; and from which, result substances not previously existing. There are three kinds of fermentation, namely, the *alcoholic* or *vinous*, the *acid* or *acetous*, and the *putrid* or *putrefactive*.

FERMEN'TUM. Yeast.

Fermentum Cerevisiæ. Yeast; barm; the scum formed on beer during the process of fermentation.

FERN. The first order of plants, of the class *cryptogamia*.

Fern, Female. See Pteris Aquilina.

Fern, Male. Aspidium filix mas. See Fern, male shield.

Fern, Male Shield. The *nephrodium filix mas.* Polypody.

Fern, Mules. Asplenium hemonitis.

FERRA'RIA. *Scrofularia aquatica.* The water figwort.

FERRI ACETAS. Acetate of iron. Iron water.

Ferri Acetatis Tinctura. Tincture of acetate of iron.

Ferri Alkalini Liquor. Alkaline solution of iron.

Ferri Ammo'nio-Chloridum. Ammonio-chloride of iron.

Ferri Carbonas Præparatus.—Common iron dust.

Ferri Carbonas Saccharatum.—Saccharine carbonate of iron.

Ferri Citras. Citrate of iron.

Ferri Cyanuretum. Prussian blue.

Ferri Ferro-Susquicyanidum.—Ferro-sesquicyanide of iron.

Ferri Filum. Iron wire.

Ferri Iodidum. Iodide of iron.

Ferri Lactas. Lactate of iron.

Ferri Limatura Purificata. Purified iron filings.

Ferri Oxydi Squamæ. The scales of iron from a smith's forge.

Ferri Oxydum Nigrum. Black oxyd of iron. Iron scales.

Ferri Oxydum Rubrum. Red oxyd of iron. Iron rust.

Ferri Pernitras. Pernitrate of iron.

Ferri Persulphas. Persulphate of iron.

Ferri Phosphas. Phosphate of iron.

Ferri Pila. Iron filings.

Ferri Potassio Tartras. Potassio-tartrate of iron.

Ferri Protocarbonas. Protocarbonate of iron.

Ferri Protosulphas. Protosulphate of iron. Green vitriol.

Ferri Sesquioxydum. Sesquioxyd of iron. Subcarbonate of iron.

Ferri Sesquioxydum Hydratum.—Hydrated oxyd of iron.

Ferri Sulphas. Sulphate of iron.

Ferri Sulphas Exsiccatum. Dried or exsiccated sulphate of iron.

Ferri Sulphas Calcinatum. Peroxyd of iron.

Ferri Sulphuretum. Sulphuret of iron.

FER'RO. From *ferrum*, iron. A prefix in *Chemistry*, attached to compounds in which this element unites with cyanogen and other radicals.

Ferro-Chya'zic Acid. Ferro-cyanic acid.

Ferro-Cy'anate. Ferro-cyanide.

Ferro-Cyanate of Potash. The old name for ferro-cyanide of potassium. Yellow prussiate of potash.

Ferro-Cyanic Acid. A yellow acid, crystalline body; a compound of ferro-cyanogen and hydrogen. Bibasic.

Ferro-Cyanide of Iron. Prussian blue.

Ferro-Cyanide of Potassium.—Prussiate of potash.

Ferro-Cya'nogen. A hypothetical radical, supposed to form the basis of the ferro-cyanides.

Ferro-Prussic Acid. Ferro-cyanic acid.

Ferro-Tartrate of Ammonia. A salt of tartrate of iron and ammonia.

FERROSO-FERRICOXYD. Magnetic iron ore. Scales from the smith's anvil.

FERROUS OXYD. Protoxyd of iron.

FERRUGI'NEUS. Pertaining to iron.

FERRUGO. Ferri sesquioxydum hydratum.

FERRUM. Iron.

Ferrum Ammonia'tum. A submuriate of ammonia with red muriate of iron.

Ferrum Oxyda'tum Hydra'tum.—Hydrated sesquioxyd of iron.

Ferrum Salitum. Muriate of iron.

Ferrum Tartarizatum. Ferri sesquioxydum.

FERRUM VITRIOLATUM. Sulphate of iron.

FE'RULA. The name of a genus of plants.

Ferula Africana Galbanifera.—The galbanum plant.

Ferula Asafœtida. The asafœtida plant.

Ferula Persica. Stinking giant plant.

FER'VOR. From *ferveo*, to boil. A scorching heat.

FEVER. *Febris*; from *fervor*, heat. A disease characterized by rigors, increased heat of the skin, quick pulse, disturbed circulation, languor and prostration. Fevers are divided into idiopathic and symptomatic. The former occurs independently of, without any apparent, or local cause; the latter is dependent upon local irritation. But these divisions admit of many subdivisions. Pinel makes the following: 1. *Angeio-tenic*, or inflammatory fevers situated in the organs of circulation. 2. The *meningo-gastric*, or bilious, which has its origin in the mucous membrane of the intestines. 3. *Adeno-meningeal*, or gastric fever, resulting from disease of mucous follicles. 4. *Ataxic*, or irregular fever, affecting principally the brain and nervous system. 5. *Adynamic*, or fever attended by great prostration of the vital powers.

Fever, Adynamic. Typhoid fever.

Fever, Asthenic. Typhus fever, or fever attended by debility.

Fever, Asthmatic. An intermittent, accompanied with symptoms of asthma.

Fever, Ataxo-Adynamic. A fever characterized by prostration and disturbance of the nervous system.

Fever, Bilious. Summer and autumnal remittent fever.

Fever, Bilious Remitting. Yellow fever.

Fever, Bilious Remittent, of Infants. Infantile remittent fever.

Fever, Bladdery. Pemphigus.

Fever, Brain. Phrenitis.

Fever, Camp. Typhus gravior.

Fever, Catarrhal. Adeno meningeal fever.

Fever, Cerebral. Phrenitis.

Fever, Childbed. Puerperal peritonitis.

Fever, Congestive. A fever attended with great oppression, obscure symptoms, and congestion of some viscus.

Fever, Continued. *Febris continua.* Continued fever.

Fever, Convulsive. An intermittent fever, attended with convulsions.

Fever, Digestive. The chilliness and fever which sometimes accompanies digestion.

Fever, Double. A complex intermittent, in which two paroxysms occur in a given time instead of one.

Fever, Endemic. Remittent fever.

Fever, Entero-Mesenteric. Typhoid fever.

Fever, Ephemeral. A simple fever of short duration.

Fever, Epileptic. An intermittent, accompanied with attacks of epilepsy.

Fever, Eruptive. Exanthematica.

Fever, Exacerbating. Remittent fever.

Fever, Gastric. Bilious fever.

Fever, Hospital. Typhus gravior.

Fever, Icteric. Fever followed by jaundice.

Fever, Infantile. Remittent. A low fever occurring in childhood, supposed to originate from gastro-intestinal disturbance.

Fever, Inflammatory. Synocha.

Fever, Intermittent. Ague and fever.

Fever, Jail. Typhus gravior.

Fever, Malignant. Typhus gravior. A fever which is insidious in its attacks and of a formidable and dangerous character.

Fever, Masked. An intermittent in which the stages of the paroxysms are irregular.

Fever, Milk. The slight febrile disturbance which precedes or accompanies the secretion of milk.

Fever, Mixed. Synocha.

Fever, Paludal. Ague.

Fever, Paroxysmal. Remittent fever.

Fever, Pestilential. The plague; also, typhus gravior.

Fever, Putrid. Typhus gravior.

Fever, Ship. Typhus gravior.

Fever, Spotted. Typhus gravior, attended by vomiting, hemorrhages, or purple or black petechiæ.

Fever, Syphilitic. The fever which accompanies syphilis.

Fever, Tertian. An intermittent in which the paroxysms return every third day.

Fever, Typhoid. Entero-mesenteric fever.

Fever, Verminous. Fever caused by the irritation of worms in the intestinal canal.

Fever, Vernal. An intermittent or other fever occurring in the spring.

Fever, Vesicular. Pemphigus.

Fever, Yellow. An endemic malignant fever, supposed to be caused by miasm, of a more or less adynamic character, attended by yellowness of the skin and vomiting of black matter.

FEVERWORT. Eupatorium perfoliatum.

FIBER. Castor fiber.

FIBRA SANGUINIS. Fibrin.

FIBRE. *Fibra.* A simple organic filament, which enters into the textures of animal and vegetable bodies.

FI'BRIL. A small thread-like fibre.

FI'BRIN. *Fibrine.* An immediate principle of animal bodies, composed of azote, hydrogen, oxygen, and carbon, existing in chyle, coagulum of the blood, and constituting the chief part of the muscles of red-blooded animals.

FIB'RINOUS. *Fibrinosus.* That which is composed, or has the nature of, fibrin.

FIBRO-CARTILAGE. *Fibro-cartilago.* Organs composed of an admixture of fibrous and cartilaginous tissues.

Fibro-Mucous. *Fibro-mucosus.* Fibrous membranes, intimately united with others of a mucous structure; also, membranes of a fibrous and mucous

structure, as the inner membrane of the sac of a tooth.

Fibro-Serous. *Fibro-serosus.* Membranes which are of a fibrous and serous texture.

FI'BROUS. *Fibrosus.* Composed of fibres.

Fibrous Membranes. Membranes composed of fibres.

FIB'ULA. The outer, or splint-bone of the leg.

FICHER. On the Different Forms of the Interior of the Maxillary Bone in different Animals. Leipsic, 1800.

FI'CUS. In *Botany*, the name of a genus of plants. In *Pathology*, a soft, though sometimes scirrhous, reddish, fleshy excrescence, attached by a small peduncle to the tongue, chin, eyelids, anus, or organs of generation.

Ficus-Carica. The fig tree.

Ficus-Indica. Musa paradisiaca. See Lacca.

FIG. Ficus carica.

FIGWORT. Scrofularia nodosa.

FIL'AMENT. *Filamentum;* from *filum*, a thread. In *Anatomy*, a small fibre, or thread-like substance, adhering to any part. A minute cellular or nervous fibre.

FILARIA MEDINENSIS. The Guinea worm.

FILEL'LUM. Frænum.

FILE CARRIER. A file holder. An instrument employed by dentists for holding a file, while separating the molar teeth. File carriers have also been employed for holding the thin files used for separating the front teeth, but these last are but little used. Those imployed in separating the molar teeth are sometimes so constructed as to require two, one for the right and one for the left side of the mouth; but the necessity for two has been obviated by having the part of the instrument which holds the file so connected with the other part, as to admit of being turned from side to side, or to revolve upon a screw when loosened.

File Carriers, Dayton's. Two instruments, a right and a left, constructed by Mr. A. C. Dayton, dentist, of Columbus, Mississippi, for holding a file while separating the molar teeth. The shaft of each is bent so as to bring the handle and the file into the same line. The shaft has a double curve, so as to make the handle and the file correspond both horizontally and perpendicularly.

File Carrier, Elliot's. An instrument invented by Dr. Elliot of Montreal, possessing the following advantages over the one in common use. It has no screws or joints, being composed of one piece of steel. It is both right and left without alteration, and the file may be turned so as to act upon a tooth at any required angle. A common file may be fitted to it by grinding the ends on a common stone.

File Carrier, Westcott's. This differs from most of the other file carriers in use, in not having any movable fixtures, joints or screws, the file being introduced by springing the back part of the instrument which holds it, but as it is made with a double bend, two are required, one for the right and one for the left side of the mouth, and besides it is necessary to have files constructed, especially for them. It is a decided improvement on the file carriers previously used.

FILES, DENTAL. Files used in operations upon the teeth.

Files for Separating Front Teeth. Files used for this purpose are from four and a half, to five inches in length, from a third to a half of an inch in width, and from a twentieth to a thirtieth part of an inch in thickness. Some are cut only on one side, others on both, and all are cut on both edges. Those which are cut only on one side are termed safe-sided, and are intended to act but upon one tooth at a time. Those which are cut on both sides, are designed for separating two teeth preparatory to using the safe-sided.

Files for Separating Bicuspid

Teeth. Files employed for this purpose, may be oval on one side and flat on the other, or they may be shaped like the pinion file of a clock, their two sides coming nearly together at one edge, while at the other they are an eighth or twelfth of an inch apart. The length of files used for separating the bicuspid teeth, including the handle, is from six and a half to seven and a half inches.

Files for Separating Molar Teeth. Until within the last twelve or fifteen years, dentists were in the habit of separating the molar teeth, when the width of the mouth would not admit of the use of a straight file, with very short files, or pieces of files, held in a file carrier, and this is done even yet, by many practitioners who are not always able to procure files expressly adapted to the purpose. The author was the first, so far as he is informed, to propose the use of such files. As early as 1833, he employed a file maker of Baltimore to manufacture for him some files, for separating the molar teeth, from patterns which he furnished. But as the files were of an inferior quality, he, a few months afterwards, sent his patterns to Stub's manufactory in England, through Messrs. Canfield & Brother, of Baltimore. These files were an inch and a half in length, shaped like the pinion file of a clock, with a stem rising up from the back about a quarter of an inch, then bent so as to form nearly a right angle with both it and the file; and five-eighths of an inch from the first bend, it was bent again so as to run in a parallel direction with the file; an inch from the last bend, it terminated in a handle four and a half inches in length. These files are made in pairs, one for the right, and one for the left side of the mouth, and their construction is such that they may be used with the greatest facility on the molar teeth of either jaw. Files for the same purpose, from other patterns, have, subsequently, been manufactured.

The molar teeth can be separated with much greater ease with files of this description than with files held in a file carrier.

Files for Preparing the Root of a Tooth for an Artificial Crown. An oval or half round file, which should neither be too large nor too small, and one having a diameter as nearly equal to that of the neck of the tooth as possible, should be preferred to a larger or smaller file. With a view of obviating the difficulty sometimes experienced in making a perfect joint between the root and crown, Dr. E. Townsend, of Philadelphia, had two files constructed, one oval and the other hollow, and the former exactly fitting into the latter. But the hollow file is only useful in those cases where the crown of a natural tooth is employed.

Files, Townsend's Dental. A steel instrument about seven inches in length, with thin, curved, oval and other shaped files at each extremity, invented by Dr. E. Townsend, of Philadelphia, and used principally in finishing fillings in teeth, after the consolidation of the gold. They are so constructed that they may be applied to the surface of a filling in any part of an incisor, cuspid, bicuspid, or molar tooth.

FI'LICES. Plural of *filix*. Ferns. Plants which bear their fruit on the back of their leaves.

FIL'IFORM. *Filiformis;* from *filum*, a thread, and *forma*, form. Thread-like. In *Anatomy* and *Botany*, parts which resemble the form, or have the shape of a thread, as the *filiform papillæ* of the tongue, formed by the termination of the filaments of the lingual nerve, &c.

FILING TEETH. An operation for the removal of superficial caries on the approximal surfaces of the teeth, and in cases of deep-seated caries occupying the same locality, performed preparatory to removing the diseased part and filling. It is, also, sometimes performed for other purposes.

But there is no operation in dental surgery, against which a stronger or

more universal prejudice prevails, than that of filing the teeth, but when judiciously and skilfully performed, there is none more beneficial, or effectual in arresting the progress of caries. Thousands of teeth are now every year rescued from the ravages of caries, and preserved through life, by it. But, although it is productive of so much good, it is, also, in the hands of ignorant and unskilful operators, productive of incalculable injury.

In a paper published in the fifth volume of the American Journal of Dental Science, the merits of this operation are examined at considerable length by Dr. John Harris, brother of the author, and from which the following is quoted:

He says, "Filing the teeth is one of the most important and valuable resources of the dental art; it is one that has stood the test of experience, and is of such acknowledged utility, as to constitute of itself, in the treatment of superficial caries on the lateral surfaces of the teeth, one of the most valuable operations that can be performed on these organs. And even after caries of the teeth, in the localities just mentioned, has progressed so far as to render its removal, by this means, impracticable or improper, the use of the file, in most cases, is still necessary, in order to the successful employment of other remedial agents. But in either case, a failure to accomplish the object for which it is used, would only be equivalent to doing nothing at all.

"The use of the file then, may very justly be considered a *sine qua non*, for the removal of superficial caries from the sides of the teeth which come in contact with each other, as can be attested by thousands of living witnesses, and in preparing the way, in deep-seated caries, for the thorough removal of the disease, and the filling, successfully, of the cavity thus formed.

"In a paper written by myself, some eleven or twelve years ago, upon this subject, I contended that filing the teeth was not necessarily productive of caries, and my subsequent experience and observations have only tended to confirm the correctness of the opinion which I then advanced, and I cherish the belief that this opinion, will not, at this time, conflict with the views of the more enlightened of my professional brethren.

"But when reference is had to the physical peculiarities of the teeth, it will at once be perceived, that they present a strange departure from the laws that govern and control all other parts of the body—that these organs, when diseased, can only be restored to health and usefulness by art, unaided by the sanitary powers of nature. Hence it is, that most of the operations upon them, will not, like those in general surgery, admit of mediocrity in their performance.

"The fact that the crowns of the teeth are covered with enamel, is alone sufficient evidence of its importance and utility in shielding and protecting the bony structure, which it envelops, from mechanical and morbid influences, so that it would seem that its removal or loss would necessarily expose the organs to certain destruction. But we have satisfactory evidence, that teeth after having suffered the loss of large portions of the enamel, have been restored to health and preserved for many years, and often through life.

"The rapidity with which caries of the teeth progress, after the exposure of the bone, by the loss of the enamel, depends upon the physical peculiarities of the organs, and upon local and constitutional influences; hence the difficulty, and oftentimes impossibility of obtaining the object for which dental operations are instituted, while such influences are suffered to exist. If special regard is not had to the curative indications, most, if not all of the operations upon the teeth, which have for their object their ultimate preservation, are sure, to a greater or less extent, to augment all of the previously existing local affec-

tions, by increasing the irritability of the parts, and by rendering them more susceptible of being acted upon both by local and constitutional causes.

"It may be laid down as a rule, from which exceptions should never be taken, that the file should not be used, while the teeth or their contiguous parts are suffering general or local, acute or chronic, inflammation. Therefore, when this is the case, the treatment of the general and local affections should be precedaneous to the operation of filing. Upon the subjugation of all the acute or chronic diseases of the mouth, the success of the dentist in the treatment of affections of the teeth, calling for the employment of the file, greatly depends. As much importance, therefore, is to be attached to an enlightened and discriminating judgment, as to tact in the performance of the operation.

"In fact the removal of all local causes of irritation, such as all dead roots of teeth, teeth occasioning alveolar abscesses, or such as exert a morbid influence upon the surrounding parts, and all depositions of salivary calculus or other foreign matter, should always precede all other operations upon these organs.

"The length of time necessary for the restoration of the parts contiguous to the teeth to a healthy condition, may vary from a few days, or weeks, to months, depending upon the nature and extent of the disease in them, the general health of the patient, and the constitutional as well as local treatment to which they are subjected. The frequent failures in accomplishing the object for which dental operations are instituted, are in most instances, the result of the ignorance of the practitioner, or the want of a correct knowledge of the nature, cause and curative indications of the disease he attempts to treat.

"But, in assuming the position, that the filing of the teeth, does not, of necessity, cause them to decay, it is by no means to be inferred, that the operation can, in all cases, and under all circumstances, be performed with advantage or even impunity. By no means; its effects, like those of most other operations upon the teeth, when the curative indications are disregarded, or not properly carried out, are never passive. The employment of the file at an improper time, and in an improper manner, increases the liability of the teeth to decay, and augments the irritability of all the parts adjacent to them, and, consequently, their susceptibility of being acted upon by local and constitutional causes.

"This view of the subject, taken in connection with the fact, that comparatively few of those engaged in the practice of this branch of surgery are properly qualified for it, satisfactorily accounts for the pernicious effects that so frequently result from the use of the instrument in question, and for the widespread and deep-rooted prejudice that has obtained against its employment.

"The principal, and I believe only, objection urged against filing the teeth, is based upon the erroneous belief, that the loss of any part of the enamel of these organs, must necessarily result in their destruction. But, if this be true, why is it, as I have, on another occasion, asked, that the negroes of Abyssinia have such sound teeth as they are represented to have, since it has long been a custom with them, to file all their front teeth to points, so as to make them resemble the teeth of a saw or those of carnivorous animals. Of course, large portions of the enamel and considerable of the bony structure, must be removed in the operation, and yet we are credibly informed that their teeth seldom decay. The same may be said of the Brahmins of India, who, from remote ages, have been in the habit of using the file, principally, I believe for separating their teeth, and they, too, are noted for having fine teeth. I might refer to the people of other countries, with whom the same practice has long had an existence, but it is not necessary to

go abroad for proof, when we have such an abundance of it at home, to establish the propriety and absolute necessity for the practice I am now advocating.

"With the people just referred to, it is evident that they file, principally, for the purpose of ornamenting their teeth, but with us, only as a remedial agent in the treatment of their diseases. The reason why their teeth are not so subject to disease as are those of the inhabitants of luxurious and civilized countries, is attributable to the difference in their habits of life, modes of living, and the absence of the causes productive of the various diseases peculiar to civilization and refinement.

"But, notwithstanding the utility and value of the operation, filing the teeth may be regarded as a predisposing cause of caries. But if this be true, it may be asked, why file at all? I answer, in this country, owing to the prevalence of the immediate or direct cause of caries, the operation is only performed as remedial, for the purpose of removing *actual* disease, or as preparatory to plugging. It does not, of necessity, follow, that caries of the teeth, after having been judiciously removed or treated, although the organs be predisposed to the disease, should ever again occur. The general system often escapes the development of disease to which it is predisposed through life; so, also, do the teeth. If the operation be properly performed, and the filed surfaces kept thoroughly clean, a recurrence of the disease, notwithstanding the increased predisposition thus induced, will never again take place. The immediate cause of dental caries being the contact of corrosive agents with the teeth, the necessity for this precaution is obvious. The bony structure of these organs is more easily acted upon by such causes, than the enamel, and for this reason, when it becomes necessary to expose it, with a file, for the removal of disease, it should be done in such a way as to admit of its being kept thoroughly and constantly clean, so that if it afterwards becomes carious, it will be owing altogether to the inattention of the patient. In view of this, whenever it becomes necessary to file the teeth, whether for the complete removal of caries, or as only preparatory to plugging, we should always impress upon the patient the importance of attending to this matter, of cleansing the surfaces thus operated upon, at least three or four times every day. The future preservation of the organs, and, especially, such as are of a soft or chalky texture, for they are then, by far, more easily acted upon by decomposing agents than when hard, will depend upon the constant and regular observance of this salutary precaution.

"The cases requiring the use of the file vary so much, that it would be difficult to lay down precise directions with regard to the extent to which the operation should always be carried. This must be determined by the judgment of the operator.

"The object for which the operation is performed, may be defeated either by filing too much or too little. Either extreme should be avoided, but I am of the opinion, that by far the greater number of unsuccessful results are attributable, rather, to the too moderate than to the too great use of this instrument, and, especially, where the circumstances of the case have nothing to do in determining the result.

"It will be perceived from the foregoing remarks, that its utility depends upon carrying out all the curative indications, that it should never be resorted to except in the absence of disease in the parts with which these organs are immediately connected. Therefore, to estimate the merits of the operation, correctly, we should know all the circumstances under which it has been performed, the competency of the operator, and whether he was permitted the free exercise of his judgment."

With regard to the utility of the opera-

tion, Dr. E. Parmly thus expresses himself:

"On the subject of cutting away and filing off external portions of teeth affected with gangrene," [caries,] "I am aware that a mistaken prejudice prevails in society, resulting, perhaps, from the mal-practice of ignorance and empiricism. And yet there is no part of dental practice promising more certain and beneficial results when properly executed. If the operation be effectually performed, the progress of decay is arrested; and if the mutilation of the tooth be as small as the nature of the case admits, an important object is unquestionably attained. The successful performance of this operation, implies one invariable and indispensable condition, viz. that the portion of bone from which the enamel has been removed, shall be perfectly smooth and polished, leaving to the patient the responsibility of having it kept so."

To ensure the success of the operation, it is sometimes necessary to file away a considerable portion of the tooth, but in doing this, the operator should be careful not to destroy the symmetry of its labial surface. The aperture, anteriorly, should only be wide enough to admit of a free oblique or diagonal motion of a safe-sided file of about one-half of a line in thickness. In this way, one-fourth or more of a tooth may be removed without materially altering its external appearance. But a tooth should not be filed entirely to the gum; a shoulder or projection should be left so as to prevent the approximation of it and the adjoining organ.

When the decay occupies a large portion of the approximal surface, and has penetrated into the tooth to a considerable depth, and destroyed the enamel anteriorly, so as to cause it to present a ragged and uneven edge, it will be necessary to form a wider exterior aperture than correct taste would dictate. When the approximal surfaces of two front teeth are affected with caries, about an equal portion, if circumstances will permit, should be filed from each tooth.

It is hardly necessary to give any directions with regard to the manner of holding the file. In filing the front teeth and those on the right side of the jaws, the operator should stand at the right and a little behind the patient, so as to steady his head as it rests against the head-piece or top of the back of his operating chair, with his left arm, while with the fingers of the hand of the same the lips should be raised and the teeth properly exposed for the operation. In filing the teeth on the left side of the mouth, it will be necessary for the operator to stand upon the other side of his patient. The file, firmly grasped between the thumb and middle finger of the right hand, with the end of the forefinger resting upon the edge of its distal extremity, should be moved backwards and forwards in a direct line, as any deviation from this, would instantly snap the instrument. The first opening between the teeth, when the approximal edges of two are carious, should be made with a flat file, of about half a line in thickness, cut on both sides and both edges, this done, a file cut only on one side and both edges should be employed for the completion of the operation. If but one tooth is decayed, the operation may be commenced and completed with a safe-sided file. The file, during the operation should be frequently dipped in water, so as to prevent it from becoming heated or choked.

After a sufficient portion of the tooth has been filed away, the surface should be made as smooth as possible with a very fine or half-worn file and burnisher. The edges and sharp corners should be rounded and made smooth, and when the operation is completed, the patient should be directed to keep them perfectly clean, for, if the mucous secretions of the mouth, or extraneous matter is permitted to adhere to them, a recurrence of the disease will take place.

The sensation produced by filing the

teeth, is, to most persons, disagreeable, and, to some, positively painful; but, when once the operation has been commenced, it should never be left uncompleted. If the patient becomes alarmed, his fears should be quieted by a true statement of the case, and his consent to proceed, won, by a mild and persuasive deportment.

In separating the bicuspides, an aperture should be made somewhat in the form of the letter V; it should not, however, form an acute angle at the gum; and for its formation, a file, shaped like the pinion-file of a clock, or one that is oval on one side and flat on the other, will be found most suitable, An aperture, shaped like this, will prevent the approximation of the sides of the teeth, and, if plugging be necessary, it will enable the operator to do it in the most perfect manner.

When the separation of the molar teeth becomes necessary, the same shaped aperture should be formed. But, as these teeth are situated so far back in the mouth, it cannot often be done with a straight file, and to obviate the difficulty, a file carrier is usually employed, but files constructed expressly for the purpose will be found more convenient.

FILIX. See Polypodium.

Filix Florida. The osmond-royal.

Filix Fœmina. Pteris aquilina. Female fern.

Filix Mas. Aspidium filix mas. Male fern.

FILLET. From *filum*, a thread. A little band.

FILL'ING TEETH. An operation for arresting the progress, and preventing a recurrence of caries of the teeth, consisting, after the removal of the diseased part, in filling the cavity with some kind of metal, or other substance.

This is the most difficult operation the dental practitioner is ever called upon to perform—it oftentimes baffles the skill of operators who have been in practice from ten to twenty years. It is, also, when well performed, the most certain and only remedy that can be applied for the cure of deep-seated caries. But to be effective, it must be executed in the most thorough and perfect manner. The preservation of a tooth, when well filled, and with a suitable material, if it be afterwards kept constantly clean, may be regarded as certain. At any rate, it will never again be attacked in the same place by caries.

On this highly important operation, Dr. E. Parmly thus remarks: "If preservation is as good as a cure, this is as good as both, for the operation of stopping, when thoroughly performed, is both preservation and cure. And yet, it must never be forgotten, that this assertion is true only in those instances in which the operation is well and properly done; and, perhaps, it is imperfectly and improperly performed more frequently than any other operation on the teeth.

"There are reasons for this fact, into which every ambitious and honorable practitioner will carefully inquire.

"Although the books are explicit on this point, I deem it sufficiently important to deserve a few additional remarks, and yet I am perfectly aware that my time requires me to be extremely general in my observations. Let me say, then, that the following considerations are essential, and, therefore, indispensable to success in this department of practice.

"*Firstly*—The instruments used must be of the proper construction and variety.

"*Secondly*—The metal employed must be properly prepared as well as properly introduced.

"*Thirdly*—The cavity which receives the metal, must be so fitted as to retain it in such a manner as to exclude not only solids, but all fluids, and even the atmosphere itself.

"*Fourthly*—The surface of the metal must be left in such condition as to place it beyond the reach of injury from

food and other mechanical agents with which it must of necessity come in contact.

"*Fifthly*—The tooth thus stopped, should be free from pain, and every known cause of internal inflammation."

It is necessary, however, that the operation should be performed before the caries has reached the pulp cavity, for after this, the permanent preservation of the tooth, especially if it be a molaris, may be regarded, in at least the majority of cases, as hopeless, unless the material employed for filling the cavity can be so introduced as not to press upon the nerve. When the lining membrane and pulp of a tooth have been destroyed, whether by the process of inflammation and suppuration, or with arsenic, or by any other means, except it be an incisor or cuspidatus, the chances of its permanent preservation are still less, for, in this case, it is apt to become a source of irritation to the surrounding parts, causing a morbid secretion at the extremity of its root or roots, as it may have one or more, which is discharged through them, as long as the cavity remains open; but if this is filled, the matter is prevented from escaping through it, and the result is, that it accumulates and ultimately makes for itself a passage, and is discharged either through the alveolus and gum, or if it be an upper molar, sometimes through the floor of the maxillary sinus. It, however, more frequently takes the former than the latter direction.

For the purpose of preventing the effects that result from the accumulation of matter in the tubercle at the extremity of the root, Dr. L. S. Parmly, in a conversation with the author, some years ago, stated, that he was in the habit, when he plugged teeth thus affected, of introducing the filling round a small probe or wire, with one end resting upon the bottom of the cavity, and which, after the operation was completed, he removed. By this means, an opening is left through the plug for the escape of the matter. But, while the decay of the walls of the tooth is thus prevented, and the organ, for a time, rendered serviceable, the ravages of the disease are going on interiorly, and must, of necessity, sooner or later, effect its destruction.

Drs. Maynard, of Washington city, and Baker, of New York, propose a plan of treatment, by which they are of opinion, that the disease at the extremity of the root, may, in the majority of cases, be radically cured. It consists in freeing the canal through the root of all impurities, and filling it to the very apex, as well as the cavity in the crown, with gold.

This practice is based upon the supposition, that if the accumulation of matter in the root can be prevented, its secretion will cease, and the author has been informed, that in the hands of Dr. M., who, for excellence as an operator, is unsurpassed, it has proved, so far as he has had an opportunity of observing its results, highly successful.

It should not, however, be attempted when there is any diseased action at the extremity of the root, and, for the removal of this, the author has succeeded more frequently by injecting the tooth, once a day, for a week or two, with a solution of nitrate of silver, than with any other remedy he has ever employed. But as a substitute for this, he has sometimes used with success, a weak solution of chloride of soda.

The operation will often appear to be successful for a few weeks or months, and sometimes for a year or two, but sooner or later, in very many cases, it will result in the formation of alveolar abscess and the discharge of matter through the socket and gum, or if it be a superior molaris, sometimes into the maxillary sinus.

A front tooth, after the destruction of its pulp, is not so liable to give rise to alveolar abscess as a molaris, and, consequently, may sometimes be preserved for years, by being treated in this man-

ner. But whether there is a discharge of fetid matter from it, or not, the operation of plugging is not always advisable.

A tooth may often be plugged when the pulp is exposed; but great care should be taken to prevent the gold from coming in contact with it, else severe pain will be produced, and the removal of the filling rendered indispensable. It should never, however, be attempted, while the pulp is inflamed, or the tooth in an aching condition.

Dr. Koecker recommends, in cases of this sort, covering the exposed pulp with a piece of thin leaf lead, on the ground that this metal is supposed to be less irritating to the animal fibre than any other. The author never tested the merits of this practice, but is disposed to believe that it will not answer, for the reason, that the extreme sensibility of the pulp is such, that the contact of any hard substance with it is productive of great pain.

Dr. Fitch says he has often succeeded, by covering the exposed nerve with a plate of gold. This is by far preferable to the plan proposed by Dr. Koecker, for the gold plate may be so fitted to the cavity that its edges will rest upon the circumjacent bone, and thus be effectually made to shield the exposed pulp. After this has been properly placed, the filling may be introduced without danger of its coming in contact with the nerve.

But, if there be inflammation in the lining membrane, Dr. F. recommends that this should be reduced, previously to the application of the plate; and for this purpose, he advises the use of the Aleppo galls. He directs that a small portion of the fresh nut be placed in the cavity of the tooth, and covered with beeswax, in order to protect it from the action of the air, and the whole to be renewed every ten or fifteen days. The author adopted this treatment in a number of cases, but has seldom succeeded with it. He cannot, therefore, speak of it in as high praise as does its author.

It is an exceedingly difficult matter to reduce inflammation of the lining membrane of a tooth. Indeed, it can rarely be done; and although the author has sometimes succeeded, he is fully of the opinion, that in all such cases, except the tooth be an incisor or cuspidatus, it should at once be extracted.

A tooth is often exceedingly sensitive, when the nerve is not exposed; but this need never deter the dentist from removing the decayed part and plugging the cavity, as the only inconvenience which it will occasion the patient, will be a little suffering during the operation, and slight momentary pain for a few days, whenever he takes any thing hot or cold into his mouth. But, if the sensibility is so great as to render it impossible for the patient to endure the operation, the fortieth or fiftieth part of a grain of arsenic, with an equal quantiy of the sulphate of morphia, should be applied to the diseased part, and the cavity afterwards sealed up with white wax, or gum mastic, to prevent it from getting into the mouth and being swallowed, and the saliva from getting to it. At the expiration of from two to three hours, it should be removed, and the cavity properly prepared and filled. There is great danger, however, when this is applied to the front teeth of very young persons, if it be permitted to remain too long, of its inducing inflammation and sometimes the death of the lining membrane, and causing the tooth to assume a dark, muddy, or purple appearance. Therefore, when applied only for the purpose of destroying the sensibility of the bone of the tooth, it should not be permitted to remain any longer than is necessary for the accomplishment of this object.

The filling of teeth, therefore, is advisable only under certain circumstances, and when the operation is performed without a due regard to these, it may be productive of great injury.

Manner of Forming the Cavity.

This is an important part of the operation, and though generally the easiest, is, nevertheless, often attended with some difficulty. The removal of the diseased part of the tooth is not always all that it is necessary to do, preparatory to the introduction of the gold. The cavity must be so shaped, as when properly filled, to prevent the liability of the filling from coming out. The part of the tooth, too, surrounding the orifice, should present no rough or brittle edges or points. The bottom of the cavity should be as nearly of the size of the orifice as it is possible to make it, and it would be better to have it even a little larger than smaller. But the difference between the size of the one and the other should never be very great; for if the interior of the cavity is much larger than the orifice, it will be difficult to make the plug sufficiently firm and solid to render it impermeable to the fluids of the mouth; and if, on the other hand, the orifice is larger than the bottom of the cavity, there will be danger of not being able to obtain sufficient stability for the filling to prevent it from ultimately loosening and falling out. It often happens, however, that the situation and extent of the decay is such, as to render it impossible to make the cavity as large at the bottom as at the orifice, and when this is the case, several circular grooves should be cut on its inner walls for the purpose of obtaining as much security for the filling as possible. By properly attending to this precaution, a plug may be so inserted as to prevent it from ever coming out.

Ordinarily, it is much easier to form a cavity in the grinding surface of a molaris or bicuspis, than in any other tooth or part of a tooth, though it sometimes happens, that even here, it is attended with difficulty, and, especially, when the decay, commencing in the centre, follows the several depressions which run out from it. In cases of this sort, the edges bordering on and covering the diseased part, and which are often thick and very hard, should be cut away so as to completely expose it and form an opening as large as the cavity will be in the interior after the caries has been removed. Caries of the approximal surface of a tooth has first to be exposed by filing a space between the affected and adjoining organ, before it can be approached by the dentist, and even then its removal and the proper formation of the cavity is oftentimes a nice and exceedingly difficult operation. The aperture between the teeth should always be made sufficiently wide to enable the dentist to operate with ease; otherwise it will be impossible to remove the caries and plug the tooth in a proper manner. In young subjects, the teeth may sometimes be separated sufficiently to admit of the operation of plugging, with wedges of soft wood or gum elastic. This is recommended, and has been practiced with success by Dr. E. Parmly. It is only admissible, however, in the fewest number of cases. If it be attempted after the twentieth or twenty-fifth year of age, there will be danger of inducing inflammation in the alveolo-dental membranes and gums that will ever render them exceedingly susceptible to morbid impressions. Much judgment, therefore, is necessary in determining the propriety or impropriety of thus separating the teeth.

After every particle of decomposed bone has been removed, the cavity should be thoroughly cleansed before the plug is inserted. This may be done by first injecting water into it with a properly constructed syringe, and, afterwards wiping it dry with a small lock of raw cotton fixed upon the point of a probe or excavator; or, the cavity may, in the first place, be wiped with a little raw cotton moistened with water, and afterwards with dry cotton. The latter method is the most convenient, and is equally as good as the former. The cavity should always be dry when

the material with which it is to be filled is introduced.

Instruments for Introducing the Gold.

For introducing and consolidating the gold, a number of instruments are required, which should be sufficiently strong to resist any amount of pressure the operator may be capable of putting upon them in the operation. They should have round or octangular handles, large enough to prevent the liability of their being broken, and to enable him to grasp them firmly in his hand. Their points should vary in size, though none should be very large. Several should be straight, but for the most part, they require to be curved—some very slightly, others so as to form with the shaft of the instrument an angle of ninety degrees. Most of them should have a slim wedge shape. Some, however, both of the straight and curved instruments, should have blunt points with a crucial groove filed across them, and a few should have highly polished oval points, for finishing the surfaces of the fillings in the grinding and other exposed surfaces of teeth. Most dentists employ for introducing and consolidating the gold, simple blunt-pointed pluggers; but, it is impossible with such instruments to make a filling as firm and solid as it should be for the perfect preservation of the tooth, and especially if the cavity is large. From one-fourth to one-half more gold can be introduced into a tolerably large sized cavity, with a wedge-pointed, than with a blunt-pointed instrument.

The sides of the wedge-pointed pluggers should be left a little rough, for the purpose of preventing them from cutting the gold, and there should be one or two small notches filed across their edges. When thus prepared, the gold can be more perfectly controlled and more readily conveyed to the bottom of the cavity than with smoother edged instruments. The blunt-pointed instruments, or those which should be used for condensing the extruding extremities of the folds of gold, should, as before stated, have a crucial groove filed across their points.

This general description will serve to convey a tolerably correct idea of the number and sort of instruments required for the operation; but, no two dentists have their plugging instruments precisely alike; each has them constructed in such a way as he thinks will enable him to apply them most easily and efficiently to the various parts of a tooth which may require filling.

Manner of Introducing and Consolidating the Gold, and finishing the Surface of the Filling.

The operator, being provided with the necessary instruments, should cut his gold with a pair of scissors, into strips of from half an inch to an inch wide. Each of these should be loosely rolled or folded together lengthwise, and after the cavity has been properly cleansed and dried, one end of one should be introduced and carried to the bottom of the cavity, with a straight or curved wedge-pointed plugger; the roll on the outside should be folded on the part first inserted. The folding should be commenced on one side of the cavity, and the inner end of each fold should be taken to the bottom, and the outer should extend nearly the twelfth of an inch on the outside of the orifice, and thus fold after fold should be introduced, until the cavity is tolerably well filled. Having proceeded thus far with the operation, a wedge-pointed plugger should be forced through the centre of the filling, and the gold firmly pressed out against the walls of the cavity. The opening made through the centre of the filling should then be filled in the manner as first described, and this time it should be packed in as tightly as possible. This done, the operator should endeavor to force in a smaller wedge-pointed instrument than was employed in the first part of the

operation, at the side or some other part of the cavity; and thus he should proceed, until he has tried every part of the plug; filling, as he proceeds, every opening which he shall have made, and exerting, in the packing of the gold, all the pressure which he can put on, without endangering the tooth. If one roll or fold of gold is not enough, he should take another and another, until every part of the cavity is filled.

The advantage to be derived from introducing the gold in this manner is obvious. By extending the folds from the orifice to the bottom of the cavity, the liability of the gold to crumble and come out, is effectually prevented, and by putting it in with a wedge-pointed instrument, it may be pressed out into all the depressions of the walls of the cavity, and rendered altogether more solid than it could otherwise be made.

When the nerve is exposed, the interior extremities of the folds should not touch the bottom of the cavity, and, after the cavity has been loosely filled in the manner described, the wedge-pointed plugger, instead of being forced through the centre of the filling, should be introduced at one side. In this way a tooth may often be so filled as to secure its preservation for a number of years, if not through life. But it requires a dexterous and experienced practitioner to do it, and on the grinding surface the operation will be found more difficult than when the cavity is in the side of the tooth, nor should it ever be attempted when the lining membrane is inflamed, or while there is pain in the organ.

After the cavity has been thoroughly filled, every portion of the projecting part of the plug should be consolidated, either with a straight or curved, small blunt-pointed instrument, as may be most convenient; or if the plug be in the side of a tooth next another, it may be compressed with the angle of the point of the plugger, making the adjoining organ a kind of fulcrum for the instrument. After the filling has been thus consolidated, as long as it can be made to yield in the least to the pressure of the instrument, the protruding part should be scraped or cut, if in the grinding face, and filed, if in the side, down to the tooth, so as to form a smooth, uniform, gently swelling, or perfectly flat surface. If in this part of the operation any portion of the gold should crumble or be dislodged, but which it will not do if it has been properly introduced and consolidated, the injury should be repaired by making in the part of the plug, where it has occurred, an opening, and filling it, or by the removal of the whole of the first and the introduction of a new filling. Every part of the surface of the filling should be uniform and free from the slightest indentation which might afford a lodgement to clammy mucus or extraneous matter of any sort. This is a point which should never be lost sight of, for, however excellent the filling may be in other respects, if the surface is not smooth and uniform, and flush with the surrounding walls of the tooth, the object intended to be accomplished by it, may be partially, if not wholly defeated. If any portions of the gold have been forced over the edge of the orifice of the cavity, they should be carefully and accurately trimmed off. This is a precaution which should never be overlooked, and it should be more especially attended to, when the filling is in the approximal surface of a tooth where a portion of the gold is very liable to be forced up or down upon the neck of the tooth, as it may happen to be in the upper or lower jaw, and for the removal of any overlapping portion here, a thin pointed cutting instrument will be necessary.

After having prepared the surface of the filling in the manner as here described, it should be rubbed with finely powered pumice-stone, or, with what is by far and incomparably better, a small piece of Arkansas oil-stone, until

all the file scratches or other asperities shall be perfectly removed. If the filling is in the grinding, outer or inner surface of a molaris or bicuspis, a long piece of the stone having a small triangular and slightly oval point should be used, or, if powdered pumice-stone be employed, it may be used on the point of a similarly shaped piece of wood, previously moistened in water. For a filling in the approximal surface of a tooth, the oil-stone should be shaped like the pinion file of a clock, and in either case it should be frequently dipped in water, and when its pores become filled with the gold, the surface should be ground off by rubbing it on another piece of the same kind of stone, or if pumice-stone be used, it may be applied with floss silk, moistened with water, by drawing it backwards and forwards across the surface of the filling.

The surface of the filling, after all the asperities have been thus ground off, should be washed until every particle of the pumice-stone, or grit from the oil-stone, if the latter has been used, which may have been left upon it, is removed. Every portion of it should then be polished with a suitable burnisher, which should, from time to time, be dipped in water having a small quantity of the purest castile soap dissolved in it, until it is rendered as brilliant as a mirror. This done, it should again be washed, and the operation completed by rubbing it from three to six minutes with dry floss silk.

The time required to fill a tooth well, by an expert operator, may be said to vary from thirty minutes to two hours and a half, according as the cavity is large or small, or favorably or unfavorably situated, and in some cases a much longer time will be required. The author has found it necessary in filling some cavities, to bestow as many as six hours constant labor upon the operation. Much less time and skill are required to fill a cavity in the grinding surface of a tooth than in the side, and the operation in either place to be beneficial to the patient, must be well performed, and the dentist who does not feel the importance of executing it in a proper manner, should never be entrusted with the management of the diseases of these important organs.

In every part of the operation, the operator should so guard his instruments as to prevent them from slipping, and he will be better able to do this by standing a little to the right and behind his patient than in any other position. In plugging the lower teeth he should stand from six inches to a foot higher than while plugging the upper, and to enable him to do this, he should be provided with a stool to be used whenever he may find it necessary to occupy a more elevated position. When it can be done, he should grasp the tooth he is filling with the thumb and forefinger of his left hand, so as not only to steady it, but also to catch the point of the instrument in case it should slip; but if he is always careful to press in a direction towards the cavity, this need never happen, but, against which accident he should nevertheless always be guarded. When he cannot shield the mouth with the thumb and finger of his left hand as described, he should let the thumb or one of the fingers of his right hand rest either upon the tooth he is operating on, or upon some other.

The foregoing description of the details of the operation, will serve as a general guide for its performance, and at the same time, enable the more inexperienced practitioner to appreciate, in some small degree, the amount of labor, accuracy of manipulation, and perfection of execution which it requires. To describe minutely the manner of filling a cavity in every part of each individual tooth, which is liable to be attacked by caries, would, if it were necessary, be occupying too much space. But believing that all the important information which can be advantageously imparted by description, concerning the details of

the operation, has now been given, the author does not deem it necessary to enlarge further upon the subject.

FILTER. An instrument, generally composed of paper, linen, sponge, sand, pulverized charcoal, or glass, properly arranged in a funnel.

FILTRA'TION. *Filtratio;* from *filtrum*, a strainer. A pharmaceutical operation, which consists in freeing a fluid from any feculent, earthy, or other insoluble matters, too light for precipitation.

FIL'TRUM. A filter.

FILUM. A fibre or thread.

FIM'BRIA. A fringe. In *Anatomy*, any fringe-like body, as the fimbrated extremity of the Fallopian tube.

FIMBRIA'TED. Fringed.

FINGER. Digitus.

FINOT, C. F. Inaugural Dissertation on the Diseases of First Dentition, by. Paris, 1813.

FIR. See Pinus.

Fir, Canada. Pinus balsamea.

Fir, Norway Spruce. Pinus abies.

Fir, Scotch. Pinus sylvestris.

Fir, Silver. Pinus picea.

Fir, Balsam. Pinus balsamea.

FIRE. Ignis.

Fire-Damp. The explosive carbureted hydrogen gas of coal-mines.

Fire, Saint Anthony's. Erysipelas.

FISH GLUE. Ichthyocolla.

Fish Skin. Ichthyosis.

Fish Tongue. A name given by some dentists to an elevator used for the extraction of teeth, and more especially the roots of teeth. It is more frequently called carp's tongue, *langue de carpe*, by the French, as it is the tongue of this fish to which the instrument in question is supposed most to resemble. See Elevator.

FISSU'RA. From *findere*, to cleave. A fissure, crack, or cleft. A fracture in which the bone is not completely separated. Also, a lesion of the skin or mucous membrane, as a chop on the hand, or a deep depression in a part.

FISSURE. See Fissura.

Fissure, Capillary. See Pilatio.

Fissure of the Palate. Cleft palate. A division of the soft and sometimes of the hard palate, and generally, along the median line. See Palatine Organs, defects of.

Fissure, Central. The aggregate of the cavities of the brain, regarded by Meckel as but one, in the form of a cross.

Fissure, Glenoid. A fissure situated in the deepest part of the glenoid cavity of the temporal bone.

Fissure of Rolan'do. A fissure passing transversely between the two superior convolutions of the brain.

Fissure, Semilu'nar. A notch at the anterior of the cerebellum.

Fissure of Sylvius. A deep, narrow sulcus on each side, parting the middle and anterior lobes of the cerebrum, ascending obliquely backwards from the temporal ala of the sphenoid bone to near the middle of the parietal.

FIS'TULA. A deep sinuous ulcer, kept up by an altered texture of the parts, and communicating with a natural cavity, excretory duct, or secretory gland. A fistula is said to be *complete*, when it has an external and internal opening, and *incomplete*, when it has but one opening.

Fistula in Ano. A sinuous ulcer by the side of the rectum.

Fistula Cibalis. The œsophagus.

Fistula Lachrymalis. An ulcerative opening into the lachrymal sac, giving egress to a puriform fluid.

Fistula, Salivary. An ulcerous opening in the cheek communicating with the parotid duct.

FITCH, SAMUEL SHELDON.—Observations upon the Importance of the Teeth, by. Philadelphia, 1828 and 1830.—A System of Dental Surgery in three parts, by. 1. Dental Surgery as a Science; 2. Operative Dental Surgery; 3. Pharmacy, connected with Dental Surgery, by. Philadelphia, 1829 and 1835. This work, although for the most part a compilation, is one of the best and most comprehensive treatises

upon the science and art of dental surgery, that had come from the press of any country up to the time of its publication.

FIXED. *Fixus;* from *figere,* to fasten. In *Chemistry,* a substance not capable of being volatilized by fire.

FIXI DENTES. The teeth of second dentition.

FLABELLA'TION. *Flabellatio;* from *flabellare,* to agitate the air. Agitation of the air with a fan.

FLABELLIFORM. *Flabelliformis.* Having the form of a fan.

FLACCIDITY. *Flacciditas;* from *flaccidus;* flabby, soft. Softness of a part.

FLAGG, JOSIAH F. The Family Dentist; containing a brief description of the structure, formation, diseases and treatment of the human teeth, by. Boston, 1822. Dr Flagg, is also author of several papers upon the teeth published in the Boston Medical and Surgical Journal.

Flagg's Drill Stock. An instrument invented by Dr. J. F. Flagg for drilling into the pulp cavity of a tooth for the purpose of giving egress to matter formed there by the suppuration of the pulp—an operation proposed by Mr. Fox.

FLAG. A water weed.

Flag, Sweet. Calamus.

Flag, Water. The yellow water flag.

FLAME. A light, glowing, luminous fluid, proceeding from the surface of a burning body, and resulting from the combustion of their volatile particles. The flame of a spirit or oil lamp is used in mechanical dentistry for uniting or soldering the different parts of a piece of dental mechanism.

FLANK. The iliac region.

FLATULENCE. An accumulation of gas or wind in the stomach or intestines.

FLATULENT. Windy.

FLATUS. Wind in the stomach and bowels.

FLAVEDO CORTICUM CITRI. Lemon peel.

FLAVUS. Yellow.

FLAX. See Linum.

Flax, Purging. Linum catharticum.

Flax-Leaved Daphne. Daphne gnidium.

FLEABANE. Inula dysenterica.

Fleabane, Great. Conyza squarrosa.

Fleabane, Canada. Erigeron canadense.

FLEAWORT. Plantago psyllium.

FLEAM. In *Veterinary Surgery,* an instrument for bleeding horses.

FLEGMEN. See Flemen.

FLEMEN. Swelling of the ankles.

FLESH. The soft part of an animal, especially the muscles.

Flesh, Proud. Fungous granulations.

FLEURIMON. Means of Preserving the Health and Beauty of the Teeth by. Paris, 1682.

FLEXIBILITY. A property possessed by certain bodies, of bending or yielding without rupture.

FLEX'ION. *Flexio;* from *flectere,* to bend. In *Physiology,* the action of the flexor muscles, and the state of a joint bent by them.

FLEXOR. A muscle, the function of which is, to bend a certain part or organ.

Flexor Brevis Digito'rum Pedis Perfora'tus. A flexor muscle of the toes, situated at the middle part of the sole of the foot.

Flexor Brevis Minimi Digiti Pedis. A flexor muscle of the little toe, situated at the inferior and outer edge of the metatarsal bone of the same.

Flexor Brevis Pol'licis Manus. A flexor muscle of the second joint of the thumb, situated at the outer part of the palm of the hand.

Flexor Brevis Pollicis Pedis. A flexor muscle of the first joint of the great toe, situated at the anterior and middle part of the sole of the foot.

Flexor Carpi Radialis. A long thin muscle of the forearm, which serves to bend the hand.

Flexor Longus Digito'rum Pedis Profun'dus Per'forans. A flexor muscle of the toes, situated at the posterior and inner part of the leg.

Flexor Longus Pollicis Manus. A flexor muscle of the thumb, situated at the anterior part of the forearm.

Flexor Longus Pollicis Pedis.—A flexor muscle of the great toe, situated at the posterior part of the leg.

Flexor Ossis Metacarpi Pollicis. A muscle of the thumb which serves to turn the first bone of it upon its axis.

Flexor Parvus Min'imi Dig'iti. A muscle situated along the inner side of the metacarpal bone of the little finger. It assists the abductor muscle in bending the little finger.

Flexor Profun'dus Per'forans. A long, thick, flat muscle of the fingers, situated under the perforatus.

Flexor Subli'mis Perfora'tus. A thick, flat muscle of the forearm, which serves to bend the second joint of the fingers.

FLEXUO'SUS. Full of windings.

FLOCCI. The fine down or villi which forms the nap of mucous membranes.

FLOCCULI. See Flocci.

FLORAL. *Florialis;* from *flos*, a flower. Pertaining to, growing in, or on, a flower.

FLORES. The plural of *flos*. Flowers; a term applied to several crystalline bodies.

Flores Benzoes. Flowers of Benjamin. Benzoic acid.

Flores Boracis. Boracic acid.

Flores Martiales. Ferrum ammoniatum.

Flores Sulphuris. Sublimated sulphur.

Flores Zinci. Oxyd of zinc.

FLORESCEN'TIA. Act of flowering.

FLORET. A little flower.

FLOS. In *Botany*, a flower. In *Chemistry*, formally applied to whatever had a flower-like appearance, as *flowers of sulphur*, &c.

FLOWERS. Menses.

Flowers of Benjamin. Benzoic acid.

Flowers of Sulphur. Sublimated sulphur.

FLUATE. A fluoride.

FLUCTUA'TION. *Fluctuatio;* from *fluctus*, a wave. The movement or undulation of a fluid accumulated in a natural or artificial cavity, distinguishable by pressure with the finger.

FLUID. *Fluidus;* from *fluere*, to flow. A body, the inherent particles of which yield to the slightest pressure and move with the greatest facility in all directions. Fluids are divided into *liquids*, or *incompressible fluids*, and *gases*, or *aeriform fluids*. The greater part of the human body consists of fluids.

Fluids of the Body. The fluids of the body consists of blood, lymph, the perspiratory, follicular and glandular fluids.

Fluids of the Mouth. The saliva furnished by the parotid, submaxillary and sublingual glands, and the secretions of the mucous membrane which lines it. See Saliva, and Fluids of the Mouth, characteristics of.

Fluids of the Mouth, Characteristics of. The saliva, in healthy persons having good constitutions, has a light frothy appearance, and but very little viscidity. Inflammation of the gums, from whatever cause produced, increases its viscidity, and causes it to be less frothy. In a healthy state it is inodorous, floats upon and mixes readily with water, but when in a viscid or diseased condition, it sinks and mixes with it with difficulty.

Irritation in the mouth, from diseased gums, aphthous ulcers, inflammation of its mucous membrane, the introduction of mercury into the system, or the taking of any thing pungent into it, increases the flow of this fluid, and causes it to be more viscid than it is in its natural and healthy state.

In treating on the signs of the saliva, professor Schill says, "The sympathetic affection of the stomach in pregnancy is sometimes accompanied by salivation, which, in this case, mostly takes place after conception, and sometimes continues to the time of delivery. It is also observed to occur in weakened digestion, in gastric catarrhs, after the use of emetics; in mania, in what are called abdominal obstructions, in hypochondriasis and hysteria; salivation occurs during the use of mercury or antimony.

"In confluent small-pox, salivation is a favorable sign. If it cease before the ninth day the prognosis is bad. In lingering intermittents, salivation is sometimes critical; more frequently in these affections it precedes the termination in dropsy.

"Diminution of the salivary secretion, and, in consequence of this, dryness of the mouth, is peculiar to the commencement of acute diseases, as also to the hectic fevers occasioned by affections of the abdominal organs. If the flow of the saliva stop suddenly, there is reason to apprehend an affection of the brain.

"Thick viscid saliva occurs under the same circumstances as the diminution of the salivary secretion, especially in small-pox, typhus, and in hectic fevers. It is thin in ptyalism. In gastric diseases, where the liver participates, it becomes yellow or green; by the admixture of blood it may assume a reddish color; in pregnant or lying-in women, it is sometimes milky; an icy cold saliva was observed by the author in face-ache.

"Frothy saliva from the mouth is observed in apoplexy, epilepsy, hydrophobia, and in the hysterical paroxysm."*

Dr. Bell, editor of the Select Medical Library and Bulletin of Medical Science, in a note to the work from which I have just quoted, says, "Acid saliva is regarded by M. Donné, as indicative of gastritis, or deranged digestion. Mr. Laycock," he observes, "on the other hand, infers from numerous experiments on hospital patients, that the saliva may be acid, alkaline, or neutral, when the gastric phenomena are the same. In general, Mr. L. remarked, that it was alkaline in the morning, and acid in the evening."

The author has had occasion to observe, that the acid quality of the saliva was more apparent, and more common in lymphatic, mucous and bilious dispositions, than in sanguinous or in sanguino-serous persons, and that weakened or impaired digestion always had a tendency to increase it.

M. Delabarre, says, "When this fluid," (the saliva,) "has remained in the mouth some moments, it there obtains new properties, according to each individual's constitution and the integrity of the mucous membrane, or some of the parts which it covers.

"In subjects who enjoy the best health, whose stomach and lungs are unimpaired, the saliva appears very scarce, but this is because it passes into the stomach almost as soon as it is furnished by the glands that secrete it. It only remains long enough in the mouth, to mix with a small quantity of mucus, and absorb a certain portion of atmospheric air, to render it frothy.

"On the other hand, the saliva of an individual, whose mucous system furnishes a large quantity of mucus, is stringy and heavy; is but slightly charged with oxygen, contains a great proportion of azote and sulphur, and stains silver."*

Increased redness and irritability of the mucous membrane of the mouth, is an almost invariable accompaniment of general acidity of these fluids. Excoriation and aphthous ulcers of the mouth, and bleeding of the gums, also, frequent-

*Outlines of Pathological Semeiology; edition of the Select Medical Library, pp. 173-4.

*Vide *Traite de la Seconde Dentition.*

ly result from this condition of the salivary and mucous juices of this cavity.

Anorexia, languor, general depression of spirits, head-ache, diarrhœa, and rapid decay of the teeth, are very common among persons habitually subject to great viscidity of the buccal fluids. It is likewise among subjects of this kind, and particularly when the viscidity is so great as to cause clamminess of these juices, that the green discoloration of the enamel of the teeth, is most frequently met with.

FLUIDITY. A liquid or gaseous state; the state of a fluid.

FLUIDUM. A fluid.

FLUKE. A small flat worm, found in the bile ducts of sheep and oxen, and sometimes in the human subject.

FLUOR ALBUS. Leucorrhœa.

Fluor Albus Malignus. Gonorrhœa.

Fluor Spar. Native fluoride of calcium.

FLUORIC ACID. The hydrofluoric acid.

FLU'ORIDE. A compound of fluorine.

FLU'ORINE. *Fluorium.* A hypothetical basis of fluoric acid.

FLUX. *Fluxus;* from *fluere,* to flow. In *Chemistry,* any highly fusible substance, or mixture, as the sub-borate of soda, employed in the fusion of metals. In *Physiology,* a natural discharge, as the menstrual flux. In *Pathology,* a morbid evacuation, as in cases of dysentery, diarrhœa, &c.

Flux, Bilious. A discharge of bile either by vomiting or purging.

Flux, Black. A mixture of charcoal and carbonate of potash, obtained by the deflagration of cream of tartar with about half its weight of nitre. It is used in the separation of metals from their ores.

Flux, Bloody. Dysentery.

Flux, Crude. A mixture of nitre and cream of tartar used to assist in the fusion of metals.

Flux, White. Sub-carbonate of potash obtained by the deflagration of equal parts of cream of tartar and nitre.

FLUXION. *Fluxio;* from *fluere,* to flow. In *Chemistry,* fusion. In *Pathology,* an afflux, flow, or determination of blood towards any organ or part of the body, as a consequence of irritation or inflammation.

FLUXUS. A flux; a discharge.

FLY. In *Zoology,* a winged insect, of which there are various species. See Musca.

Fly, Spanish. See Cantharis.

FŒNIC'ULUM. Anethum. Fennel.

Fœniculum Aquaticum. Water fennel.

Fœniculum Dulce. Sweet fennel.

FŒTAL. *Fœtalis.* Pertaining to the fetus.

Fœtal Circulation. There being no pulmonic circulation in the fetus, the blood seems to undergo in the placenta, a change similar to that which it experiences in the lungs after birth, and is conveyed from here through the umbilical vein to the liver, and vena cava, by the ductus venosus. From there, it is conveyed into the right auricle of the heart. From thence, a small portion is sent into the right ventricle, then into the pulmonary vein and is returned by the ductus arteriosus into the aorta; but larger portions pass directly through the foramen ovale into the left auricle; from thence, it is thrown into the left ventricle and passes into the aorta, to be conveyed through the arterial system. The umbilical artery returns it to the placenta.

FŒTOR. From *fœteo,* to stink. An offensive smell.

Fœtor Oris. An offensive breath. This may result from disease of the lungs or stomach, but the most frequent cause of fetor of the breath is a morbid condition of the gums, caries of, or accumulations of salivary calculus on, the teeth. Inflammation, sponginess and ulceration of the gums, and large accumulations of light brown or yellow salivary calculus, however, impart to the

breath a much more offensive odor than caries of the teeth. See Gums, diseases of, and Salivary Calculus.

FŒTUS. *Fetus;* from *feo*, I bring forth. The unborn of animals, after its parts are distinctly formed, until birth. Previously to this time, it is generally termed embryo.

FOLIA'TION. *Foliatio;* from *folium*, a leaf. The folded arrangement of leaves while in their buds.

FOLIUM. A leaf.

FOL'LICLE. See Follicule.

Follicles, Ciliary. See Meibomius' Glands.

Follicles, Dental. See Dental Follicles.

FOLLICULE. *Folliculus;* diminutive of *follis*, a bag. A little bag. In *Anatomy*, a simple gland or follicle, consisting of a roundish hollow, and an excretory duct, like the mucous and sabaceous follicles. In *Botany*, a seed-vessel.

Follicule, Ciliaire. See Meibomius' Glands.

Follicule, Dentaire. See Dental Follicles.

FOMENTA'TION. *Fomentatio.* A partial bathing with simple or medicated warm water, affected with cloths previously dipped in it, and then applied to the part.

FOMENTUM. Fomentation.

FOMES MORBI. In *Pathology*, the seat of a disease.

FOM'ITES. From *fomes*, fuel; any thing which retains heat. In *Pathology*, any thing which absorbs and retains contagious effluvia, as woollen goods, cloths, &c.

FONS PULSANS. A fontanel.

FONTANA, CANAL OF. A triangular canal, at the inner side of the ciliary circle of the eye.

FONTANEL'LA. A fontanel. Diminutive of *fons*, a fountain. The opening between the frontal and parietal bones which is not closed until about the third year after birth. There is, sometimes, a second opening between the occipital and parietal bones, the first is called the *anterior fontanel*, and the other, the *posterior fontanel*.

FONTIC'ULUS. An abscess. A small ulcer produced by art.

FONZI. Report upon Terre Metallic Artificial Teeth, by. Paris, 1808.—Reply to the Pamphlet of Dubois Faucou, by. Paris, 1808.

FOOD. A nutrient, digestible substance, not combined with a poisonous ingredient.

FOOT. *Pes.* The lower extremity of the leg, or that part on which an animal stands or walks.

Foot-Bath. Pediluvium.

Foot, Flat. See Kyllosis.

FORA'MEN. From *foro*, I pierce. A little opening.

Foramen Centra'le. See Foramen of Sœmmering.

Foramen Cœcum. An opening in the base of the cranium between the ethmoid and frontal bones. A depression near the root of the tongue has also received the appellation of foramen cœcum, as well as a little sulcus between the corpora pyramidalia and the pons varolii.

Foramen Incisivum. A foramen behind the incisor teeth of the upper jaw common to the two bones below, but proper to each above.

Foramen Lacerum Anterius. The opening between the greater and lesser wing of the sphenoid bone, through which the third, fourth, first branch of the fifth, and the sixth pair of nerves, and opthalmic artery, pass.

Foramen Lacerum in Basi Cranii. A foramen in the base of the cranium which gives passage to the internal jugular vein, and the eighth pair and accessory nerves.

Foramen Magnum Occipitis. The great opening at the base and anterior part of the occipital bone.

Foramen Monroia'num. The aperture beneath the anterior part of the body of the fornix, through which the lateral ventricles of the brain communicate; called so, after Monro, the discoverer.

Foramen of Sœmmering. The central foramen or depression in the retina.

Foramen of Winslow. An opening in the omentum.

Foramen Opticum. The opening through which the optic nerve passes.

Foramen Ovale. The opening between the two auricles in the heart of the fetus. Also, a foramen of the sphenoid bone.

Foramen Rotundum. See Fenestra Rotunda.

Foramen Supra-Orbitarium. The superior orbitar hole.

Foramen Vesalii. A scarcely perceptible hole between the foramen rotundum and foramen ovale of the sphenoid bone.

FORCE. From *fortis*, strong. Any power which determines an action. By *muscular forces*, is meant the power of the muscles; *vital forces*, the powers inherent to organization, &c.

FORCEPS. From *ferrum*, iron, and *capio*, I take. An instrument for taking hold of, and extracting bodies or parts which it would be difficult to seize or remove with the fingers.

Forceps for Extracting Teeth. Tooth forceps. This was probably among the first, and, perhaps, almost the only instrument employed for the extraction of teeth, until the invention of the key by Garengeot, in the early part of the eighteenth century. But from the time of Celsus, who wrote in the first century of the christian era, down to this period, the forceps used for the extraction of teeth were so rude in their construction, and so illy adapted to the purpose, that for the removal of molar teeth, the employment of the key instrument soon became general, both among dental and medical practitioners. But the use of forceps for the extraction of the back teeth having again been brought into notice by Mr. Cartwright, an eminent dentist of London, who had so improved them, as to render their employment both safe and efficient, they have, since about 1830, been rapidly taking the place of the key of Garengeot, in all its improved and modified forms.

The practicability, however, of extracting firmly articulated molar teeth with forceps, even after it had been demonstrated by Mr. Cartwright, was, for several years, doubted by many very respectable practitioners, and when we consider the strong prejudices that existed to their use, it is not surprising that their employment should have been adopted with caution. Nor is it to be wondered that a gentleman of Mr. Bell's intelligence and practical experience, should, so late as the period of the publication of his work, 1830, tell us, that the key is the only instrument to be relied on for the removal of teeth that are much decayed, and that those who have heaped the most opprobium upon it, are glad to have a concealed recourse to its aid.

This may have been true at the time Mr. B. wrote, but it is not now. On the contrary, cases are daily occurring of the extraction of teeth with the forceps, upon which the key had been previously unsuccessfully employed. It is generally supposed, that a greater amount of force is necessary to remove a tooth with forceps, than with the key, but this is a mistake. It does not ordinarily require as much. All that is gained by the lever action of the key, is more than balanced by the greater amount of resistance encountered in the lateral direction of the force exerted by that instrument in the removal of the tooth. But with the forceps, the direction of the force being perpendicular, either upwards or downwards, as the tooth may happen to be in the upper or lower jaw, a sufficient amount only to break up the connection with the socket, and to overcome the resistance of the walls of the alveolus, is required.

The author has used forceps, to the exclusion of the key, for nearly fourteen years, and he does not hesitate to affirm, that any tooth that can be extracted

with the latter, can also be removed with the former, if properly constructed, and that, too, in the majority of cases, with greater ease to the operator, and less pain to the patient. He knows that, in the expression of this opinion, he differs from many of his professional brethren ; and that there are many skilful and experienced practitioners, who, while they prefer the forceps for the extraction of most teeth, still occasionally use the key. But he is confident, that, if they would provide themselves with forceps properly constructed for the extraction of the teeth, which they now remove with the key, and use them for six months to the exclusion of that instrument, they would never employ it again. He could mention the names of more than fifty, who, at his instance, have done this, and the result has been, that they have wholly abandoned its use.

It may, perhaps, require a little more practice to become skilled in the use of forceps, than in that of the key. We would, therefore, advise those who have been accustomed to the key, not to lay it at once entirely aside; but to commence the use of forceps on teeth that are least difficult to remove, as, for example, the bicuspides, and then afterwards upon the molares.

But, in order that forceps may be used with ease, it is necessary that they should be of a proper shape and construction. Every operator should possess several pair, (seven at least,) each with a differently shaped beak, fitted to the necks of the teeth to which they are respectively designed to be applied.

For the extraction of the molares, the forceps recommended and described by Mr. Snell, are the best in use, so far as their adaptation to the teeth is concerned. Their jaws are so adapted to the necks of the teeth as to secure a firm hold, and to prevent the liability of their slipping. But in describing the forceps used for the extraction of teeth, the author will commence with those employed for the removal of the upper incisores and cuspidati.

Forceps for the Extraction of the Upper Incisores and Cuspidati.

For the extraction of the upper incisores and cuspidati, one pair of forceps only, is necessary. These should be straight, with grooved or crescent-shaped jaws, accurately fitted to the necks of the teeth, and thin, so that, when it becomes necessary, from the decay of the tooth, they may be easily introduced under the gum, up to the edge of the alveolus. Their handles should be large enough to prevent them from springing in the hand of the operator. One of the handles should be bent at the extremity, as recommended by Mr. Snell, so as to form a hook to pass around the little finger, to prevent the hand of the operator from slipping, which, in the extraction of a firmly articulated cuspidatus, and, especially, when moist from perspiration, it is liable to do.

Most of the straight forceps vended for the extraction of teeth, have the inside of their jaws simply notched, and, consequently, not being adapted to the necks of the teeth, are illy suited for the extraction of the upper incisores and cuspidati.

Forceps for the Extraction of the Bicuspides of both Jaws and the Lower Cuspidati.

Forceps for the extraction of the above mentioned teeth, should be bent so as to be easily and readily applied to them; their jaws should be narrow, thin, and slightly grooved. If but one pair, which is all that are really required, be employed, both handles must be straight.

Forceps for the Extraction of the Upper Molares.

For the extraction of the upper molares, two pair, one for each side, are required. Those described by Mr. Snell, are curved just below the joint, so that the jaws of the beak forms an angle

with the handles, of about twenty or thirty degrees, or just enough to clear the lower teeth. The inner jaw of each is grooved to fit the palatine root or side of the neck of a superior molaris, while the outer jaw has two grooves in it, with a point in the centre to fit the depression just below the bifurcation of the two outer roots. One of the handles is bent so as to form a hook. This passes round the little finger of the hand of the operator and prevents it from slipping. In the drawing which Mr. S. has given of his superior molar forceps, the hook is on the inner or palatine handle of each, and consequently, in the extraction of a right molaris, the upper side of the instrument must be grasped, and the lower side in the extraction of a left molaris. The author has obviated this inconvenience by having the handle so bent, that when the instrument is applied, the hook of each is towards the operator, which gives him an equal control over both. The handles should be large enough to prevent them from springing under the grasp of the hand; wide, and accurately fitted to it; and their length should not exceed five or five and a half inches. The beak should not be bent any more than is absolutely necessary to prevent the handles from coming in contact with the lower teeth, for, in proportion to the greatness of the curvature, will the force required to be applied to the instrument, be disadvantageously exerted. Every dentist, therefore, in having forceps manufactured, should give special directions with regard to their shape and size.

Forceps for the Extraction of the Lower Incisores.

The lower incisores being narrower than any of the other teeth, require very narrow-beaked forceps for their removal, to prevent interfering with the teeth adjoining the one upon which the instrument is applied. Their width should not exceed the twelfth part of an inch. The beak should be bent to an angle of about twenty-five degrees. An instrument of this sort is as well suited to the extraction of the lower incisores as any which can be employed. It is also an exceedingly valuable instrument for the removal of roots of teeth.

Forceps for the Extraction of the Lower Molares.

Each jaw of the beak of the lower molar forceps recommended by Mr. Snell, has two grooves, with a point in the centre, which, in grasping the tooth, comes between the two roots just at their bifurcation. Mr. S. employs two pair for the extraction of the lower, as well as the upper molares, in order, as he says, to have a "hook to turn round the little finger," supposing that this, must be on opposite sides of the instrument. But this is rendered unnecessary by an improvement made by the author in 1833, which consists in having the handles of the instrument so bent that it may be as readily applied to one side of the mouth as the other, while the operator occupies a position at the right and a little behind the patient. By this improvement, the necessity for two pair is wholly superceded, and it moreover enables the operator to control the head of his patient with his left arm, and the lower jaw with his left hand, rendering the aid of an assistant wholly unnecessary.

When applied to a tooth, the handles, as may be perceived, are turned toward the operator, forming an angle with the median line of the mouth, of about twenty-five or thirty degrees. Without this curvature in the handles of the instrument, the arm of the operator would often be thrown so far from his body, as to prevent him from exercising the control over it, often required in the performance of the operation. And, while it is important that they should be bent in the manner here described, they should, at the same time, be wide and accurately fitted to the hand of the operator.

Forceps for the Extraction of the Dentes Sapientiæ.

The forceps described for the extraction of the bicuspides of both jaws and the canines of the lower, are, in the majority of cases, as well suited for the removal of both the upper and lower wisdom teeth as any instrument which has been employed for the purpose. It sometimes happens, however, that the crowns of the upper second molares are so much longer than the dentes sapientiæ as to render their application exceedingly difficult and even impossible. To obviate this difficulty, Dr. Edward P. Church, about eighteen years ago, had a pair of forceps constructed with the beak bent above the joint, so as to form nearly two right angles. This has proved to be a very valuable instrument not only for the purpose for which it was originally designed, but also for the extraction of roots of teeth situated immediately behind a long crowned bicuspis or molaris.

Forceps, Compound Screw, Hullihen's. An instrument, combining the advantages of the conical screw and upper incisor forceps, invented by Dr. S. P. Hullihen, for the extraction of the roots of the upper incisores and cuspidati. It is thus described by the author, "Lengthwise, within and between the blades of the beak is a steel tube, one end of which is open; the other solid and flat, and jointed in a mortice in the male part of the joint of the forceps. When the forceps are opened, this joint permits the tube to fall backwards and forwards from one blade of the beak to the other, without any lateral motion. Within this tube is a spiral spring which forces up a shaft two-thirds of the tube, the other part is a well tapered or conical screw. * * * The shaft and tube are so fitted together, and to the beak of the forceps, that one-half of the rounded part of the shaft projects beyond the end of the tube; so that the shaft may play up and down upon the spring," about half an inch, and the screw or shaft be embraced between the blades of the beak of the instrument.

"The forceps," says Dr. H., "are used, by first embracing the shaft between the blades." "Then screwing it as gently and deeply into the root as possible, the blades are opened—pushed up on the root, which is then seized" and extracted.

"The screw thus combined with the forceps," as is justly remarked by Dr. H., "prevents the root from being crushed. It acts as a powerful lever when a lateral motion is given; it is likewise of advantage when a rotary motion is made—it prevents the forceps from slipping, or of their action being lost, should even one side of the root give way in the act of extracting it; and is used with equal advantage where one side of the root is entirely gone."

The opportunities which the author has had of testing the value of this instrument, have been sufficient to justify him in stating that its merits are not overrated by the inventor. Every practitioner would, therefore, do well to provide himself with one of them.

Forceps, Crane's. Two pair of forceps designed by Dr. J. W. Crane, of New York, for the extraction of the lower molar teeth, one for the removal of the first and second molares on either side of the lower jaw, and the other for the third molares, or dentes sapientiæ. The beaks and handles of these instruments are so bent as not to interfere with the teeth of the upper jaw, and at the same time so constructed as to give the operator a firm grasp upon them.

Forceps, Maynard's. Two instruments, a right and a left, invented by Dr. E. Maynard, for the extraction of the roots of the upper molares before they have become separated from each other. The outer jaw of each instrument is brought to a sharp point, for perforating the alveolus between the outer roots of the teeth and for securing between them, a firm hold, while the

inner nib is intended to rest upon the edge of the alveolus and embrace the palatine fang. By this means a sufficiently firm hold is secured to enable the operator to remove the roots of an upper molaris without difficulty; two pair, as we have before stated, one for the right and one for the left side, are required. The advantage to be derived from forceps of this description, in the extraction of the superior molares, when in the condition as above described, must be apparent to every practitioner. When properly applied, they will always enable him to remove the roots of an upper molaris at once, and by a single effort.

FOREARM. *Cubitus. Pars inferior brachii.* The portion of the upper extremity, extending from the elbow to the hand.

FOREN'SIC MEDICINE. The application of medical science to the solution of judicial questions.

FORESKIN. The prepuce.

FORFEX. A pair of scissors; also an iron hook.

Forfex Dentaria. A hook, used by dentists for the extraction of roots of teeth. The point of it is shaped something like the extremity of a hook used with the key instrument. Some are forked, and others are slightly crescent-shaped. It is particularly applicable for the removal of roots of molar teeth, on the left side of the mouth, after they have become partially loosened. It was formerly much more generally used than at present.

FORGE. See Furnace, forge.

FORMIC ACID. *Acidum formicum.* An acid found in the ant, or *formica rufa*, and obtained by distillation. It is also prepared artificially.

FORMI'CA. The ant. A genus of insects; also, the name of a black wart with a broad base and cleft surface. The epithet is applied too, to a varicose tumor which appears on the anus and glans penis.

FORMICA'TION. A slight tingling sensation, such as one might suppose would be produced by a number of ants creeping on a part.

FOR'MULA. From *forma*, a form. A medical prescription.

FORM'ULARY. A collection of medical prescriptions or formulæ.

FOR'MYLE. A hypothetical radical of formic acid.

FORNIX. An arch or vault. A medullary body beneath the corpus callosum is so called, because, in one direction it presents an arched appearance.

FOSSA. From *fodio*, I dig. A cavity with an orifice wider than the base.

Fossa Amyntæ. A double headed bandage used in fractures of the nose.

Fossa Cerebel'li. The inferior occipital fossa.

Fossa Corona'lis. A depression in the orbital plate of the frontal bone.

Fossa Hyaloide'a. A depression in the vitreous humor for the reception of the crystalline lens.

Fossa Magna. The great groove of the ear. Also, the pudendum muliebre, or vulva.

Fossa Ovalis. A depression in the right auricle of the heart, occupying the place of the foramen ovale in the fetus.

FOSSIL. The organic remains of animals and vegetables.

FOTUS. A fomentation.

Fotus Communis. A decoction of poppies.

FOURCHETTE. *Furcula.* A fork. A forked instrument used for raising the tongue in the operation of dividing the frænum.

FOUCHON. Author of tracts of vicious positions of the Teeth, published Paris, 1775.

FO'VEA. From *fodio*, I dig. A slight depression; the pudendum muliebre. Also, a vapor both.

FOX, JOSEPH. A dentist, and author of a work on the Natural History and Diseases of the Human Teeth. He commenced his professional career near the close of the eighteenth century, but with regard to the period of his birth,

early history, and time of his death, the author is not informed. It would seem, however, from what he says in the introduction to the second edition of his work, which has contributed in so eminent a degree to the elevation of the profession, and advancement of the Science and Art of Dental Surgery, published in 1814, that he was, for some time, engaged as a dresser for Mr. Cline, surgeon of St. Thomas' Hospital. But he must have had some knowledge of practical dentistry previously to this time, as he states, that he found amongst the students of St. Thomas' and Guy's Hospital, while thus occupied, "a great desire to obtain particular information, concerning the diseases of the teeth," which he could not have furnished, had he not been a dentist. He also adds, that it was from "frequent conversations with them" on these subjects, that he was led to deliver a "course of lectures on the Structure and Diseases of the teeth. In this undertaking" he received, as he acknowledges, much assistance from Sir Astly Cooper. His first course of lectures was delivered in the spring of 1799, and were afterwards "continued as one of the spring courses of lectures" of Guy's Hospital. "The lectures having been favorably received," continues the author, "a publication of them was called for, with engravings from drawings taken from the preparations used to illustrate the oral descriptions. A volume containing the Natural History of the Human Teeth, &c. was published in 1803; and a second volume on the Diseases of the Teeth, &c. was published in 1806." In 1814, as before stated, a second edition of these two works were issued from the press, in one volume, and in 1833, some years after the death of the author a third edition was published. This work has been more extensively quoted than almost any other upon the same subject, and so great has been the demand for it in the United States, that as late as 1846, an edition, with numerous additions, was published in Philadelphia. A translation of it into French, has also been published in France.

During the whole course of the professional career of Mr. Fox, he enjoyed a high reputation as a practitioner of dental surgery, and as we have elsewhere stated, although he has passed from among the living, he has left behind him a memorial which will perpetuate his name to the latest period of time. Wherever, and so long as this branch of surgery shall be practiced by educated men, will the name of Fox be held in grateful remembrance.

Fox's Bandage. A bandage used in the extraction of teeth, to prevent luxating the jaw. "It consists of a piece of leather formed so as to receive the chin, and a strong cap, that may be placed upon the top of the head, which are connected by two straps upon each side; it is to be fixed when the mouth is opened to a certain degree, with the condyles as far back as possible; the cap is then to be put on the posterior part of the crown of the head, and the leather being applied to the chin, the straps are to be buckled tight, when it will not be possible, by any effort, to advance the jaw so much as to endanger its luxation."

FOXGLOVE. Digitalis perpurea.

FRACTURE. *Fractura;* from *frangere*, to break. In *Surgery*, the breaking of a bone into two or more pieces. A fracture is termed *simple*, when it occurs without injury to the surrounding integuments; *compound*, when accompanied by a laceration or contusion of the integuments, and *comminuted*, when the bone is broken into numerous pieces and forced into the soft parts. Fractures may be transverse, oblique, &c.

Fracture of the Alveolar Processes. An accident which more frequently results from the extraction of teeth by unskilful practitioners than from any other description of mechanical violence. "The danger of the occur-

Unable to display this page

integuments, with which it was connected. The wounds of her face, having been properly dressed, the detached portion of the jaw was carefully adjusted and secured by a ligature passed round the front teeth and first molares, and by a bandage on the outside, passed round the chin and back part of the head. Her mouth was washed, five or six times a day, with diluted tinct. myrrh. The third day after the accident, by the direction of Dr. B., she lost twelve ounces of blood; and, in about five or six weeks, with no other treatment than the dressing of the wounds had perfectly recovered.

To the above case the author might add several which have fallen under his own immediate observation, but as some of these have already been noticed in the article on accidents which sometimes result from the extraction of teeth, he does not deem it necessary to enlarge further upon the subject.

Fractures of the Teeth. This is an accident of daily occurrence. The molares, and even bicuspides, are sometimes so securely articulated as to render extraction difficult, and occasionally impossible, without fracturing one or more of their roots, especially when the alveolar processes are firm and unyielding. In this case, if the fractured portion is not deep, it should always be removed, though, in so doing, it may be necessary to cut away a small portion of the edge of the alveolus. But when it is deep, and not productive of pain or inconvenience to the patient, it may be suffered to remain, until by the gradual destruction and filling up of the alveolus, it can be reached with a pair of forceps or elevator, when it may be readily removed.

But it sometimes happens that the crown of a tooth is broken by a blow, and in this case, the socket generally sustains more or less injury from the concussion. The author has known as many as four, and in one case, thirteen crowns of teeth to be broken off from a single blow. A fireman of Baltimore, in 1835, received a blow from the head of an axe, which fractured the crowns of the incisores of both jaws, the inferior canines and three of the bicuspides of the lower jaw; and in 1828 or '29, he saw a boy about twelve years of age, who, from a similar accident, occasioned by running up suddenly behind a man while chopping, had the crowns of his superior incisores broken off. In both of these cases, the inflammation which supervened was so great as to render the removal of the roots necessary. The crowns, fangs, and alveolar processes, are sometimes ground to pieces, or the teeth driven into the very substance of the jaw-bone. Mr. Bell says that he once found a central incisor so completely forced into the bone, that he thought it to be the remains of a fang, but, on removing it, he found it to be an entire tooth.

When the crown of a tooth has been broken off by a blow, the root should be immediately extracted, because the injury that it has received will not permit it to remain with impunity in its socket. The author has sometimes engrafted artificial crowns on such roots, but the practice is, in general, a bad one. When it is desirable that the loss should be repaired by the substitution of an artificial tooth, the root should be extracted, and time allowed for the alveolus to become filled with a deposition of osseous matter, and the gums to be restored to health, before replacing it.

But whether the loss of the crown be replaced or not, the root can seldom remain with impunity, for after the inflammation, induced by the concussion of a blow, sufficiently severe to fracture the tooth, has subsided, or terminated in the suppuration of the lining membrane, which it usually does, it acts as a morbid irritant to the socket and adjacent parts, and for this reason it should, at once be removed.

FRÆNUM. A bridle. In *Anatomy*, a term applied to a fold of membrane

which binds down or restrains the movements of a part.

Frænum Labio'rum. Folds of mucous membrane, which bind down the lips to the maxillary bone at the medial line.

Frænum Linguæ. A triangular fold of mucous membrane from the floor of the mouth which binds down, or rather restrains the motion of the tongue.

Frænum Præputii. A membranous fold connecting the prepuce with the lower part of the glans penis.

FRAGA'RIA. From *fragro*, I smell sweetly. The strawberry.

Fragaria Sterilis. The barren strawberry.

Fragaria Vesca. The strawberry plant.

FRAGIL'ITAS OSSIUM. Brittleness of bones.

FRAG'MENT. *Fragmen; fragmentum;* from *frangere*, to break. A splinter or fragment of bone.

FRAMBŒ'SIA. From *framboise*, a raspberry. The yaws; a disease peculiar to the Antilles and Africa, and characterized by cutaneous excrescences, resembling mulberries, which suppurate and discharge an ichorous fluid.

ERAN'GULA. Black alder.

FRANK. Author of a Small Work on restoring the Teeth to Soundness. Heidelb, 1672.—Also, of a Dissertation on Tooth-ache, published at Jena, 1692.

FRANKINCENSE. At present the resin of spruce fir, but formerly, olibanum.

FRA'SERA. American calumba.

FRAXINEL'LA, WHITE. Dictamnus albus.

FRAXINUS EXCEL'SIOR. The ash tree.

Fraxinus Ornus. The tree from whence manna flows.

FRECKLES. Ephelides.

FREEZING POINT. For water, thirty-two degrees of Fahrenheit.

Freezing Mixture. A preparation capable of suddenly producing cold. The two following are selected from Mr. Walker's table of frigorific mixtures:

Mixture with Snow.		Therm. falls.
Snow, or pounded ice, five parts by weight,		to—12°
Muriate of soda,	2	
Muriate of ammonia,	1	

Mixture without Snow.		Therm. falls.
Muriate of ammonia,	5	from +50° to —10°
Nitrate of potash,	5	
Water,	16	

FREM'ITUS. Shuddering.

FRENA. The socket of a tooth.

FRIABIL'ITY. *Friabilitas;* from *frio*, to break or crumble. The property of being easily broken into small fragments, or coarse powder.

FRIABLE. Easily crumbled.

FRIC'TION. *Frictio;* from *fricare*, to rub. The act of rubbing any part of the surface of the body with the hand, a piece of flannel or a brush, or with medicinal substances.

FRIGID'ITY. *Frigiditas;* from *frigidum*, cold. A sensation of cold. Also, impotence. Frigidity of the stomach, *anorexia exhaustorum*, consists of loss of appetite, occasioned by excessive venery.

FRIGORIF'IC. Possessed of the power of producing cold. See Freezing Mixture.

Frigorific Mixtures. See Freezing Mixture.

FRIGUS. Cold.

Frigus Tenuo. A rigor.

FROG TONGUE. Ranula.

FRONT. *Frons.* The forehead.

FRONTAL. *Frontalis.* Belonging, or relating to the forehead.

Frontal Artery. A branch of the opthalmic, *the supra orbital*, distributed to the muscles of the forehead.

Frontal Bone. The os frontis.

Frontal Nerve. A branch of the opthalmic, which divides into two branches; one passes up through the supra-orbitar foramen, and the other between the internal orbitary beneath the pulley of the superior oblique muscle.

Frontal Sinuses. Two cavities in the os frontis, separated by a medium

septum, and communicating with the anterior cells of the ethmoid bone.

FRONTAL SPINE. A vertical ridge on the middle of the inner side of the os frontis, which gives attachment to the falx cerebri.

FRONTA'LIS. Frontal.

FROST-BITE. Numbness and imperfect or arrested circulation in a part.

FRUCTIFICA'TION. *Fructificatio;* from *fructus,* fruit, and *facio,* to make. The collection of phenomena which attend the formation of fruit.

FRUCTUS. The fruit of a plant.

FRUGIV'OROUS. From *fruges,* fruits, and *voro,* I eat. An animal that feeds on fruits.

FRUIT. Fructus.

FRUMENTA'CEUS. An epithet applied to plants like wheat. Also, made of wheat, or like grain.

FRUMEN'TUM. Wheat; also, the cerealia, from the grains of which bread is made.

FRUTEX. A shrub.

FUCUS. A sea weed.

FUCUS AMYLA'CEUS. Ceylon moss. Marine moss. Irish moss. Carrageen moss.

FUCUS DIGITATUS. Sea girdle and hangers.

FUCUS HELMINTHO'CORTON. Corsican worm weed.

FUCUS NATANS. Sea lentil.

FUCUS VESICULOSUS. The sea oak. Sea wreck. Bladder wreck.

FUGA'CIOUS. *Fugax;* from *fugere,* to fly. Fading quickly, In *Botany,* applied to organs which speedily fade away. In *Pathology,* symptoms which appear and disappear almost immediately afterwards.

FUL'CRUM. A prop or support. The fulcrum of the key instrument used for the extraction of teeth is the bulb around which the hook moves, and is placed on the opposite side of the tooth. In *Botany,* the term, in its plural sense, *fulcra,* signifies the appendages of the axis of a plant, except the leaves.

FULGU'RATION. The sudden brilliancy emitted by gold and silver in the cupel of the assayer, immediately the last film of vitrious lead and copper leaves the surface.

FULIG'INOUS. *Fuliginosus;* from *fuligo,* soot. Having a smoky, or dark brown color. Applied to the lips, tongue and teeth, when they assume this appearance.

FULI'GO. Soot. *Fuligo ligni.* Wood soot.

FULIGO'KALI. From *fuligo,* soot, and *kali,* potash. An alkaline medicine prepared by boiling soot and potassa, in certain proportions in water, and afterwards evaporating and filtering the solution.

FULLER. A Popular Essay on the Structure, Formation and Management of the Teeth, by. London, 1810—and a new edition, with Introductory Observations, by Richard Downing, published, London, 1815.

FULLER'S EARTH. An argillaceous earth.

FULNESS. *Repletio.* Plethora.

FUMA'RIA. *Fumaria officinalis.* Fumitory. Common fumitory.

FUMARIC ACID. An acid, obtained from fumaria and Iceland moss, and, also, from the maleic acid.

FUMARIA BULBOSA. A plant, the root of which was formerly used as an emmenagogue and anthelmintic.

FUMIGA'TION. *Fumigatio;* from *fumus,* smoke. The application of vapor, as fumes, to purify the atmosphere from some noxious emanation or miasma. Chloride of lime is supposed to be the most powerful disinfecting agent, and, consequently, is most frequently employed for this purpose.

FUMITORY. Fumaria.

FUMUS. Smoke.

FUMUS ALBUS. Mercury.

FUMUS CITRINUS. Sulphur.

FUMUS DUPLEX. Sulphur and mercury.

FUMUS TERRÆ. Fumitory.

FUNC'TION. *Functio;* from *fungor,* to execute an office. In *Physiology,*

the action of an organ, or system of organs.

FUNDA. A bandage split at each end to within two inches of the middle, employed in diseases of the nose, and, especially in cases of fracture or dislocation of the lower jaw.

FUNDAMENT. *Fundamentum.*—The anus.

FUNDUS. The base of an organ which has an external opening, or ends in a neck.

FUN'GI. The plural of fungus. See Fungus.

FUNGIFORM. *Fungiformis.* Resembling a fungus.

Fungiform Papillæ. A term sometimes applied to the papillæ near the edges of the tongue.

FUNGOID. *Fungoides;* from *fungus,* a mushroom, and εἶδος, resemblance. That which has the shape or resembles a fungus.

FUNGOS'ITY. *Fungositas.* A fungous excrescence. Proud flesh.

FUNGUS. In *Surgery,* a soft, spongy, luxuriant growth, or tumor, developed on the membranes, or other textures of the body. In *Botany,* the mushroom order of plants, in the Linnæan system; class *cryptogamia.*

Fungus Articuli. Spina ventosa.

Fungus, Bleeding. Fungous hæmatodes.

Fungus Cerebralis. An encephaloid tumor.

Fungus Cerebri. Hernia cerebri.

Fungus Hæmatodes. Medullary sarcoma; spongoid inflammation; a morbid excrescence of a malignant character, and somewhat similar to the substance of the brain. Three varieties are enumerated by Laennec: 1. The *encysted;* 2. The *unencysted,* and 3. The *infiltrated* or *diffused.* The first rarely attains a very great size; the second sometimes grows to the size of a child's head, and the third, consists of uncircumscribed masses.

Fungus Medullaris. Fungous hæmatodes. Also, an encephaloid tumor.

FUNIC'ULUS. Diminutive of *funis,* a chord. A little chord.

Funiculus Spermaticus. The spermatic chord.

Funiculus Umbilicalis. The umbilical chord.

Funiculus Varicosus. Cirsocele.

FUNIS. A chord.

Funis Umbilicalis. The umbilical chord.

FURCA'TUS. Forked.

FURCULA. The clavicle.

FUR'FUR. Bran. Also, a genus of scaly diseases.

FURFURA'CEOUS. Resembling bran; applied to the bran-like sediment sometimes deposited in the urine.

FURNACE. *Fornax.* An apparatus in which a vehement fire and heat may be made, for melting ores or metals, baking clay, or porcelain ware or teeth, supplied with air by various means, for the purpose of facilitating the combustion of the combustible matter employed for heating it.

Furnace, Evaporatory. A furnace used for the purpose of reducing substances into vapor by means of heat, in order to separate the fixed from the volatile principles.

Furnace, Ceylonese Goldsmith's. A small low earthen pot, filled with chaff, or saw-dust, on which a charcoal fire is placed. This is excited with a small bamboo blow-pipe inserted in a nozzle, placed at the bottom of the fire. It is sometimes used by dentists for refining and alloying gold.

Furnace for Baking Porcelain Teeth. A muffle furnace; which is made of fire clay, cased or hooped with iron bands, to prevent it from cracking when heated, with a muffle, or arched clay vessel with a flat bottom in the side, for the reception of a slide or tile, on which the teeth are placed. Some furnaces used for this purpose are in two pieces, the top one being shaped like a dome; others constructed on a more extensive scale are cased with brick. See Mineral Teeth.

FURNACE, FORGE. A furnace in which the current of air is supplied by a bellows. It is sometimes used in the laboratory of the dentist.

FURNACE, REVERBERATORY. A furnace in which the flame is made to diffuse itself, over an arched surface, as in distillation.

FUROR UTERINUS. Nymphomania.

FURUN'CULUS. From *furiare* to make mad. A species of phlegmon, or boil, seated in the dermoid texture, which, after some days, suppurates and discharges a bloody pus. It is vulgarly called a boil.

FURUNCULUS GANGRÆNOSUS. An anthrax.

FUSIBIL'ITY. Capable of being fused.

FUSIBLE. Possessed of fusibility.

FUSIBLE METAL. See D'Arcet's Metal.

FUSIFORM. Spindle-shaped.

FUSION. *Fusio;* from *fundere*, to melt. The transformation of solids into liquids, by exposure to the action of heat.

G.

G. With the ancient Greek physician, an ounce.

GABIR'EA. A fatty kind of myrrh.

GALACTOPO'SIA. From γαλα, milk, and ποσις, drink. Treatment of disease by a milk diet.

GALANGA. See Maranta Galanga.

GALANGAL, ENGLISH. Cyperus longus.

GALBANETUM. Balsam of galbanum with turpentine.

GAL'BANUM. A fetid, aromatic gum-resin, the product of Bubon galbanum, possessing properties, similar to those of asafœtida.

GAL'BULUS. From *galbus*, yellow. The cone of the cypress-tree. Also, a natural yellowness of the skin with which some persons are affected.

GALE. Dutch myrtle.

GALEA. A helmet. In *Pathology*, head-ache, involving the whole head. In *Surgery*, a bandage for the head, called Galen's bandage. In *Botany*, the upper petal of the lobate corolla.

GALE'GA OFFICINALIS. *Galega; ruta capraria.* Goat's rue.

GALE'NA. Native sulphuret of lead.

GALENIC. Relating to the doctrines of Galen, or Galenism.

GALENISM. The doctrines of Galen.

GALENISTS. The followers of the doctrines of Galen.

GALEN'S BANDAGE. A four-headed bandage.

GA'LIA. The name of two ancient medicines, in one of which galls were an ingredient; the *galia pura*. The other, *galia moschata*, contained aloes, amber and musk.

GALIPE'A CUSPARIA. The Angustura bark-tree, or Bonplandia trifoliata.

GALIPOT. White turpentine.

GALIUM. From γαλα, milk, because some species curdle milk. The name of a genus of plants.

GALIUM ALBUM. See Galium Mollugo.

GALIUM APARI'NE. Goose grass. Cleavers.

GALIUM MOLLU'GO. Galium album. Greater ladies' bedstraw.

GALIUM VERUM. Ladies' bedstraw, or cheese-rennet. The galium of the pharmacopœias.

GALL. Bile.

GALL-BLADDER. *Vesicula fellis.* An oblong membranous receptacle, serving

as a reservoir for the bile attached to the inferior surface of the right lobe of the liver.

Gall Ducts. The ductus communis choledochus, and the cystic and hepatic ducts.

Gall-Stone. Biliary calculus.

GALLA. A gall nut. Gall oak.

GALLIC ACID. *Acidum gallicum.* A silky, crystalline substance, obtained by the oxydation of tannic acid.

GALLETTE. 1. Present for both sexes to keep the Teeth healthy and clean, by. Franckfort, 1797.—On the Art of the Dentist, by. Mayence, 1803.—Glances into the Province of the Dentist, by. Mayence, 1810.

GAL'LIPOT. A glazed earthen pot used for medicines.

GALLS. Gall-nuts.

GAL'VANISM. *Galvanismus;* from *Galvani,* the discoverer. The electrical phenomena, manifested on the contact of two metallic plates of a different nature, and when executed on animal parts endowed with irritability, excite sensible movements. A form of electricity.

Galvano-Magnetism. An assemblage of phenomena, produced by the passage of a magnetic current through a wire wound around a centre of soft iron.

GAMBOGIA. *Gambogium.* A yellow gum-resin, opaque and brittle, a drastic cathartic, emetic, and anthelmintic.

GAMMARUS. The common lobster.

GAMPHE'LE. The cheek; the jaw.

GANGLIA ABDOMINAL. The semilunar ganglia and solar plexus.

Ganglia Cerebri Postica. The thalami novorum opticorum.

Ganglia, Cervical. The superior, middle and inferior cervical ganglions.

GAN'GLIFORM. Having the form of a ganglion. A knot-like enlargement, in the course of a nerve.

GANG'LION. Γαγγλιον, a knot. In *Anatomy,* a tubercle, or knot-like enlargement, varying in form, texture, color, size and consistence, composed of a net-work of nervous filaments or blood vessels, united by cellular substance, and enveloped in a capsular membrane.

Ganglion, Abdominal. The semilunar ganglia.

Ganglion Azygos, Vel Impar. A small ganglion situated on the first bone of the coccyx which serves to connect the inferior extremity of the sympathetic system.

Ganglion, Cardiac. A ganglion situated upon the concavity of the arch of the aorta.

Ganglion, Casserian. A large semilunar ganglion of the posterior chord of the fifth pair of nerves, situated near the extremity of the petrous bone.

Ganglion, Ciliary. A small ganglion situated within the orbit, between the external rectus muscle and optic nerve.

Ganglion, Jugulare. The superior ganglion in the jugular fossa of the glosso-pharyngeal nerve.

Ganglion, Optic. A small, flattened, oval-shaped ganglion, situated immediately below the foramen ovale.

Ganglion, Petrosum. The inferior ganglion of the glosso-pharyngeal nerve situated in the jugular fossa.

Ganglion, Plexiforme. A ganglifform swelling of the pneumogastric nerve, situated between the internal carotid artery, and internal jugular vein.

Ganglion, Spheno-Palatine. The largest of the cranial ganglia of the sympathetic nerve, and situated in the spheno-maxillary fossa.

Ganglion, Submaxillary. A round ganglion, situated on the submaxillary gland.

GANGLIONIC. *Ganglionicus.* Applied to nerves which have ganglions in their course.

GANGRÆNA ORIS. *Sloughing phagedæna of the mouth. Necrosis infantilis.* This is an affection which seems to be peculiar to children, and occurs

more frequently during the shedding of the temporary, and the dentition of the permanent teeth, than at any other period of life. The author has never known adults to be affected with it, though it is said that it does sometimes attack them, and to the ordinary spongy, inflamed, and ulcerated gums, it bears no resemblance. Although gangrene is generally regarded as a result of inflammation, Dr. Wood, in treating of it as it occurs in the mouth, says, "it is an unsettled point, whether it has in general any dependence upon it." He further states that it is thought "by many to be an original affection, and the inflammation which sometimes attends it" is regarded "rather as an effect than a cause."

Among the symptoms which characterize the affection, are itching, ulceration and separation of the gums from the necks of the teeth and alveolar processes, the discharge, at first, of a mucopurulent, but ultimately of a fetid ichorous matter. The gums and lips assume a deep red or purple color; and ulcers are formed in various parts of the mouth; the gums ultimately slough, and the alveolar processes exfoliate, bringing with them the temporary, and sometimes the crowns of the permanent teeth. To these symptoms may be added loss of appetite, dryness of the skin, small quick pulse, constipation of the bowels, though sometimes there is a diarrhœa, lassitude, and frequently a disposition to sleep.

With the exfoliation of the alveolar processes, the disease usually abates, and sometimes entirely disappears.—Delabarre says, "among the great number of children brought to the Orphan Asylum, he has had frequent occasion to notice singular complications of the affection," which are modified according to the strength, "sex, and idiosyncrasies of the different subjects." The gums and lips, in some, he describes as being of a beautiful red color; in others, the lips are rosy and the gums pale, and sometimes much swollen. He also enumerates among the symptoms, burning pain in the mucous membrane of the cheeks, ulceration, pain and swelling in the submaxillary glands.

In the majority of cases the disease is confined to one jaw and to one side, though sometimes both are affected with it. Delabarre says, if children reach the seventh or eighth year, the permanent teeth are not injured, except that it causes them to be badly arranged, owing to the want of proper development of the jaw, but the author has never met with a case, however, in which they had not suffered more or less seriously from it.

The author just referred to, enumerates among the symptoms of the disease in its most aggravated form, inordinate appetite, burning thirst, a small spot on the cheek, or about the lips, resembling anthrax, which rapidly increases in size, turns black, separates, discharges an ichorous fluid, and its edges "roll themselves up like flesh exposed to the action of a brisk fire." The flesh separates from the face; the bones become exposed, hectic fever ensues, and in the course of fifteen or twenty days, death puts an end to the sufferings of the child. We are also informed by Delabarre, that this affection is more common among females than males, and that the bones of the jaws are so much softened as to be easily cut with a knife.

The disease seems to be dependent upon a cachectic habit of body and defective nutrition, or unwholesome food. "It is most prevalent," says Dr. Wood, "in miasmatic districts, and in public establishments where children are crowded together. It is a frequent sequela of other diseases, especially of intermittent and remittent fever, and the exanthemata. Mercury has sometimes been accused of producing it, though upon insufficient grounds. It is possible that mercurial sore mouth may sometimes have degenerated into this

complaint, in persons predisposed to it. The opinion is highly probable, which ascribes the constitutional predisposition to the disease to a depraved condition of the blood." This opinion is also maintained by Delabarre, who says, its "seat is in the organs of nutrition, and in the fluids conveyed to them." The bad disposition which gives rise to it, the last mentioned writer thinks is sometimes innate, and at other times the result of unwholesome diet.

In the treatment of the disease, such constitutional remedies should be prescribed as are best calculated to sustain and strengthen the enfeebled energies of the system, sulphate of quinine, mineral acids and a nutritious diet are recommended.

The local treatment should consist, in the early stages of the disease, that is, before sloughing has commenced, in acidulated and astringent gargles, and a solution of chloride of lime or soda may also be advantageously used. The ulcerated and discolored parts should be occasionally touched with a strong solution of nitrate of silver, and Delabarre says, he has derived great advantage from touching them with the actual cautery. A strong solution of sulphate of copper is recommended by Dr. B. H. Coats, to be applied to every part of the diseased surface. Dr. Wood says, "solid nitrate of silver, or a strong solution of the salt, if sloughs are already formed, the mineral acids, and undiluted tincture of chloride of iron, have also been recommended as topical applications, and will, in most cases, be found effectual." As soon as exfoliation of the alveolar processes takes place, the detached portions of bone should be removed.

Gangræna Senilis. The dry gangrene which sometimes occurs in old age, commencing, generally, in a purple or black spot under one of the small toes, and from thence, gradually extending up the leg.

GAN'GRENE. *Gangrena;* from γραω, to feed upon. Incipient mortification. That condition of a part which immediately precedes mortification. See Mortification.

GARCIN'IA MANGOSTA'NA.—The mangosteen of Java and the Molucca islands.

GARDE'NIA DUMETORUM.—A plant, the root of which is possessed of emetic properties.

GARDETTE, JAMES. James Gardette, surgeon dentist, was the second son of Jean Blaize Gardette, and was born 13th of August, 1756, in the town of Agen, département de Lot et Garonne, France. His father died when James was quite a lad, and we are but little acquainted with this early period of his life: nor, indeed, does it enter into the plan for the performance of our task. We only know that he possessed a very trifling patrimony, insufficient for his maintenance or education, and that after his father's death he was brought up by his paternal uncle, Blaize Gardette, who lived at Agen, and held the office of prosecuting attorney until an advanced age. His uncle designed James for the medical profession, and with that view, after the ordinary academical studies of that day in a provincial town of France, sent him to Paris. He remained at the capital about two years, (from 1773 to 1775,) pursuing the study of anatomy and surgery in the Royal Medical School; and thence he was removed to the hospital at Toulouse, where he resided eighteen months as a pupil in the institution. At the end of this period he was sent to Bayonne, and there was examined by the surgeons of the admiralty, and commissioned as a surgeon in the French navy.

We are not aware whether this first step in life, or the more important one that immediately followed it, met the approbation of the good old uncle at Agen: but the probability is that they were the voluntary independent movements of the young and more ambitious nephew. For we find that immediately on obtain-

ing the commission in the navy, he received orders to embark in his professional capacity, on board the brig of war La Barquaize de St. Jean de Luz, destined for Boston, Massachusetts. He sailed in October, 1777, and arrived at Plymouth early in January following.

The love of liberty and popular movement throughout France, which brought so many young Frenchmen to the United States, at the period of our "Declaration of Independence," had no small influence in governing the course of Mr. Gardette. He made a cruise of four months, during which an engagement occurred with two British ships, lasting three hours and a half, and in which there were several killed and wounded on board the vessel of which he was the surgeon. This seems to have terminated his offiicial duties and connection with the French navy, from which he resigned, intending to adopt this country as his home. When the French fleet and army arrived at Newport, he was induced to visit that town, and commence practice as a dentist, the officers affording him considerable and congenial occupation for a short time. He had received instructions in dental operations (as part of his profession of naval surgeon) from Mr. Le Roy de la Faudinière, a dentist at Paris, then in high repute. He had also provided himself with the best works extant (Fauchard and Bourdet) on the Teeth, and with a limited set of dental instruments: still we scarcely think he could have had any expectations of pursuing the profession of dentist in this country, at the time he left France.

He returned to Boston from Newport, and in the autumn of 1783 we find, went to New York. He was there when the American army, under Gen. Knox, took possession of the city—an inactive but not indifferent spectator of the great events of that interesting epoch in American history. His professional success as a dentist in New York, seems to have been comparatively small, and his limited knowledge of the English language was, as yet, a great impediment to making himself known or appreciated as he desired. It was not until the summer of 1784, and in Philadelphia, that he attained the position which determined his permanent residence in the United States. The pleasant and successful character of his occupation among the best class of citizens in Philadelphia, at the period when Fourth street was its western boundary, needs, perhaps, no stronger comment than the fact, that he continued there in uninterrupted practice as a dentist, from 1784 to 1829—a period of forty-five years!*

* In Mr. E. Parmly's "Appendix" to "Dentalogia," a Poem by Mr. S. Brown, we find a republication of an obituary notice of the late Dr. Edward Hudson, dentist, which originally appeared in a city newspaper, under the signature of "A Surgeon Dentist," and which, Mr. Parmly tells us, is from the pen of Dr. S. S. Fitch. We feel that it would be an act of injustice to the professional character of James Gardette, to omit noticing here, an article calculated to mislead the reader and disguise the truth; deriving importance chiefly, it is true, from having obtained space in a volume which bears the name of so distinguished a Dentist and estimable a man as Mr. E. Parmly.

Extract from the "Appendix."

"When he (Dr. Hudson) commenced his practice here, he found the profession, generally, at a *very low ebb*—usually exercised by mechanics. Those great principles which elevate dental surgery from an art to a science, were *almost entirely overlooked or unknown*. To *remove this mass of rubbish*, to obliterate bitter and widely extended prejudices, was the task of Dr. Hudson," &c. &c.

* * * * * * *

Other passages are scarcely less objectionable on the score of impartial truth—for Dr. S. S. Fitch cannot well have been ignorant that when Dr. Hudson commenced his practice here in Philadelphia (about 1805–6) *he had practiced but little anywhere else;* and that Mr. Gardette had already, as a practitioner of twenty years' standing, acquired and deserved a high reputation for science and skill in his profession. Dr. Hudson himself was among those who acknowledged and honored that reputation, and in cases of

Unable to display this page

He invented the manner of mounting natural teeth, which consists of a gold mortise plate to which the teeth are secured by means of gold pins, and which permits the tooth to rest upon the gum instead of the gold plate.

He was the first to apply the principle of suction or atmospheric pressure* for the support of entire sets of artificial teeth, dispensing with the use of spiral springs and the endless contrivances then in use, much to the inconvenience of those who wore them.

* It is a well authenticated fact, that Mr. Gardette successively maintained sets of artificial teeth for the upper jaw, on the principle of atmospheric pressure, as early as 1800.

We have heard him relate the following anecdote of the chance which led to this important discovery. He had furnished, for the second time, an entire set of upper teeth (enamelled hipp's) for Mrs. A. M'C., and owing to the short time the first set had lasted under the action of the saliva, he suggested that this set should be left much heavier. In order that the tongue should become accustomed to this increased bulk, necessarily contracting the limits for its free movements, the lady was desired to keep the new piece in her mouth as much as possible, during a few weeks, but not expecting her to use it for purposes of mastication or speech until the usual springs should be attached to it. Mr. G. promised, at the end of the period named, to call and arrange the piece for permanent use.

It was then still the custom for the dentist to attend at the houses of his patients, and a busy season caused months instead of weeks to elapse, when Mr. Gardette called again; with an apology for neglect, his plyers and springs ready, he requested Mrs. M'C. to bring the artificial pieces. She replied, "I have them in my mouth," much to the astonishment of her dentist, with whom she had been conversing with her usual facility. She stated that at first they were a little troublesome, but she had become accustomed to them now, and they answered every purpose as well *without* as *with* springs, and she was glad to dispense with them. The principle upon which the artificial piece thus adhered to the gum at once suggested itself to his mind, and suction, or atmospheric pressure, was henceforth depended upon, in numerous cases of the same kind.

Nor were his improvements less important in the cure of diseases to which the teeth and gums are liable; he was the early advocate, if not the first who recognized the wisdom, of affording space for the healthy and good arrangement of the teeth, by judicious extractions in youth. He believed, and his long experience proved, that he thus obviated a great cause of decay, arising from lateral pressure, when the circle of the jaw is too narrow for the number and size of the teeth, to permit their regular and easy arrangement.

He was one of the earliest dentists who adopted gold foil, instead of lead or tin, as the best material for filling teeth; and related often that he had at one period, prepared gold foil for his own use from Dutch ducats, when no gold-beater was to be found in this country, or none, at any rate, who could furnish dentist's filling gold.

As an operator Mr. Gardette displayed great judgment, care and dexterity, while he exhibited no misplaced or morbid sensibility inconsistent with the best performance of his painful professional duties.

In the mechanical departments of his art, his work evinced discrimination and good taste, as well as originality: his artificial pieces, at a period when no aid was to be derived from "dental laboratories," possessed all the good workmanship and finish which are the result of mechanical skill and patient industry.

His practice was characterized by the one strong motive of good to his patient, and not less by the liberal and benevolent feelings which should govern professional life.

His want of familiarity with the English language seems to have made him diffident about publishing his views or improvements in his profession; and it was not until 1827 that he was induced by his friend, the late Dr. James Mease, (a liberal and warm friend of the arts and sciences,) to furnish an article for

the Medical Recorder, on the "Transplantation of the Human Teeth:" the first, and we believe, the only publication that bears his name. This paper, occupying seven pages of the periodical referred to, (January, 1827,) goes to show the impracticability and injudicious character of the operation, and exhibits a sound and sensible theory, with some original suggestions.

As a practicing dentist, the usefulness of Mr. Gardette was much impaired during the latter years of his life, by continued and severe suffering from the gout. He had long cherished a desire to return to France and end his days in his native country, but owing to unfortunate investments and various disappointments, this favorite plan was not accomplished until the year 1829, at the age of seventy-three, too late to realize the pleasant anticipations he had so long connected with such a step. His native village of Agen, which he revisited, was no longer what it had seemed to his longing heart, during an absence of half a century: he took up his residence at Bordeaux, where he died from an attack of gout, in August, 1831.

GARENGEOT. The inventor of the key instrument for the extraction of teeth. See Key of Garengeot.

GARGA'REON. The uvula.

GAR'GARISM. *Gargarisma; gargarismus;* from γαργαριζω, I wash the mouth and throat. A gargle or wash for the mouth and throat. Gargles are employed in cases of inflammation and ulceration of the mucous membrane of the mouth and fauces, tonsils, gums, and are made of astringents, stimulants, sedatives, refrigerants, &c. according to the indications of the case which calls for their employment.

GARGLE. See Gargarism.

Gargle, Bourdet's Antiscorbutic. Take sarsaparilla, esquine, and shavings of guaiacum, each ʒ ij; infuse them for twenty-four hours in one gallon of myrtle water, with as much distilled plantain water; then strain; put in cinnamon water, ʒ viij; strong spirit of scurvy-grass, in which is dissolved sal ammoniac, ʒ i; tinct. myrrh, tinct. aloes, each ʒ ij; and tincture of cloves, ʒ i. Incorporate well together, for use.

GARIOT, J. B. An eminent French dentist, and author of a Treatise on the Diseases of the Mouth, comprising the Structure and Functions of the Mouth; the History of its Diseases; the Means of Preserving it in Beauty and Health, and Operations appertaining to the Dental Art. Published, Paris, 1805. The above well written excellent work, has been translated into English, and published in the third volume of the Library part of the American Journal of Dental Science. M. Gariot occupied a high position as a practitioner, was dentist to the king of Spain, member of the Royal College of Surgery at Madrid, and associate member of the Society of Medicine at Paris.

Gariot's Dentifrice Powders.—The following are his formulæ: Tooth powder, No. 1. ℞.—Prepared terra sigillata, ʒ vi; cream tartar, ʒ ij; cloves, ϑ i. No. 2. ℞.—Pumice-stone, ʒ vi; cream tartar, ʒ ij; carmine lac, ʒ i; cinnamon, ʒ ij. No. 3. ℞.—Dragon's blood, ʒ i; red coral, ʒ iv; fine carmine, ʒ ss; orange peel, ʒ ij. These are to be mixed and reduced to an impalpable powder.

Gariot's Elixir for the Mouth. ℞.—Brandy, spirituous vulnerary water, each ʒ ij; essential oil of mint, gtt. iv.

Gariot's Odontalgic Elixir. ℞.—Cloves, opium, cinnamon, each ʒ ij; pyrethrum, ʒ i; resin, ʒ ss; brandy, ʒ viij.

Gariot's Elixir for the Gums.—℞.—Vulnerary water, ʒ viij; spirit of scurvy grass, ʒ i; essential oil of cloves, gtt. iv.

GARLIC. See Allium.

Garlic, Hedge. Stinking hedge mustard.

GAROSMUM. The stinking orach.

GARROPHYLLUS. The Indian clove tree.

GAS. An aeriform fluid. Any per-

manently elastic fluid, whether simple or compound, except the atmosphere.

Gas, Ammoniacal. See Ammonia.

Gas, Azotic. Nitrogen.

Gas, Carbonic Acid. Carbonic acid.

Gas, Heavy Carbonated Hydrogen. Carbureted hydrogen.

Gas, Hepatic. Sulphureted hydrogen gas.

GASEOUS OXYD OF CARBON. Carbonic oxyd.

GASOM'ETER. A reservoir for gas.

GASTER. Γαστηρ. The abdomen. Also, the stomach.

GASTRAL'GIA. From γαστηρ, and αλγος, pain. Cardialgia.

GASTRIC. *Gastricus;* from γαστηρ, the stomach. Pertaining to the stomach.

Gastric Arteries. The *gastro-epiploica dextra, gastro-epiploica sinistra,* and the *coronaria ventriculi.* The first is a branch of the hepatic artery; the second, a branch of the splenic, and the third of the cœliac.

Gastric Fever. See Febris Gastrica.

Gastric Juice. The fluid secreted by the lining or mucous membrane of the stomach.

Gastric Nerves. The terminal branches of the pneumogastric and sympathetic nerves.

Gastric Plexus. A nervous network, derived from the solar plexus.

GASTRI'TIS. From γαστηρ, the stomach, and *itis,* signifying inflammation. Inflammation of the stomach.

GASTRO-ARTHRITIS. Gout.

GASTRO-BRONCHITIS. Catarrhal fever.

GASTROBRO'SIS. From γαστηρ, the stomach, and βρωσις, the act of gnawing. Perforation of the stomach.

GASTROCE'LE. From γαστηρ, the stomach, and κηλη, a tumor. Hernia, formed by a protrusion of the stomach through the superior part of the linea alba.

GASTROCNE'MII. From γαστηρ, the belly, and κνημη, the leg. The name of two large muscles on the posterior part of the leg.

GASTRODID'YMUS. From γαστηρ, the belly, and διδυμος, a twin. A monstrosity, consisting of twins united by the abdomen.

GASTRO-ENTERITIS. From γαστηρ, the stomach, εντηρον, an intestine, and *itis,* signifying inflammation. Inflammation of the stomach and intestines.

GASTRO-EPIPLOIC. From γαστηρ, the stomach, and επιπλοον, the epiploon. Relating to the stomach and epiploon or omentum.

Gastro-Epiploic Arteries. The gastro-epiploica dextra, and the gastro-epiploica sinistra, derived from the hepatic and splenic arteries.

Gastro-Epiploic Ganglions. The lymphatic glands situated between the anterior laminæ of the great omentum.

Gastro-Hepatic. From γαστηρ, the stomach, and ηπαρ, the liver. Belonging to the stomach and liver.

Gastro-Phrenic. From γαστηρ, the stomach, and φρενες, the diaphragm. Belonging to the stomach and diaphragm, as the gastro-phrenic ligament.

GASTRO-MALA'CIA. *Gastro-malaxia;* from γαστηρ, the stomach, and μαλακος, soft. Softening of the stomach.

GASTROP'ATHY. *Gastropathia;* from γαστηρ, the stomach, and παθος, disease. A morbid condition of the stomach.

GASTRO'RAPHY. *Gastrorrhaphia;* from γαστηρ, the stomach, and ραφη, a suture. The union, by suture, of wounds of the abdomen.

GASTRORRHA'GIA. Discharge of blood from the stomach. Hæmatemesis.

GASTRORRHŒ'A. From γαστηρ, the stomach, and ρεω, I flow. Excessive secretion of mucus from the mucous membrane of the stomach.

GASTRO'SES. A generic name for diseases of the stomach.

GASTROT'OMY. From γαστηρ, the stomach, and τεμνω, to cut. The operation of opening the stomach or abdomen.

GAUCHIR. A word applied by

French dentists to artificial pieces, or dental substitutes which have been awkwardly constructed, or which have shrunk or warped, and lost their proper adaptation.

GAULTHE'RIA. *Gaultheria procumbens.* Mountain tea; wintergreen; patridge berry.

GAUGE PLATE. In the mechanical laboratory of the dentist, an instrument for measuring the thickness of plate employed for bases for artificial teeth, clasps and backings. See Gold, manner of making it into plate.

GAZ. Gas.

GEHLER, J. Observations on the Teeth of Third Dentition, by. Leipsic.

GEL'ATINE. *Gelatina,* jelly. A peculiar animal substance, obtained by boiling the skins, cellular tissue, bones, &c. of animals, in water. Glue is an impure form of gelatine.

GELATI'NOUS. Of the nature of gelatine.

GELA'TIO. From *gelo,* to freeze. Freezing, congelation. In *Pathology,* rigidity of the body, as in catalepsy.

GELLY, OR JELLY. A soft tremulous, transparent substance, obtained from animal and vegetable matters.

GELU. Gelly.

GEMEL'LUS. Double, twin. One of two children produced at a birth. In *Anatomy,* muscles disposed in pairs. See Gemini Musculi.

GEMINI. Twins. In *Anatomy,* applied to muscles disposed in pairs.

GEMINI MUSCULI. *Gemelli.* A muscle of the thigh, consisting of two portions, united by a tendinous and fleshy membrane.

GEM'MA. A gem. In *Surgery,* a granulation. In *Botany,* a bud on the stem of a plant.

GEMMA OCULI. The crystalline lens.

GEMMIP'AROUS. From *gemma,* a bud, and *pario,* to produce. Plants which produce buds, and zoophytes, which propagate by a like process.

GEMMULE. The terminal bud of the plumula of germinating seeds.

GE'NA. The cheek.

GENCIVES. See Gingivæ.

GENERAL ANATOMY. The anatomy of the textures, or more properly, the tissues of which the body is composed, as distinguished from descriptive anatomy, which consists of a description of the various organs formed by these tissues.

GENERATION. *Generatio;* from γεινομαι, to beget. The aggregate vital functions concerned in the production of organized beings, comprehending, conception, pregnancy, parturition and lactation.

GENERATION, ORGANS OF. In women they are divided into external and internal. The external are, the *mons veneris,* the *labia,* the *clitoris,* the *nymphæ,* and the *perinæum;* the internal, consist of *vagina,* the *uterus,* the *Fallopian tubes,* and the *ovaria.* In man, they consist of the *penis, testicles, vesiculæ seminales, vasa deferentia,* and *prostrate gland.*

GENE'RIC. *Genericus.* Pertaining to a genus or kind.

GENET'ICA. From γενεσις, origin. Diseases of the sexual functions.

GE'NIAL. Relating to the chin.

GENI'O-GLOSSUS. Genio-hyoglossus. From γενειον, the chin, and γλωσσα, the tongue. A muscle extending from the genian apophysis to the base of the os hyoides, and to the root, middle, and extremity of the tongue.

GENIO-HYOIDEUS. From γενειον, the chin, and υοειδης, the os hyoides. A long, thin, and fleshy muscle, extending from the genian apophysis to the base of the os hyoides.

GENIO-PHARYNGE'US. From γενειον, the chin, and φαρυγξ, the pharynx. Constrictor pharyngis superior.

GENIS'TA. The name of a genus of plants. The spartium scoparium.

GENISTA SPINO'SA INDICA. An Indian tree.

GENISTA TINCTORIA. The dyer's broom.

GEN'ITAL. *Genitalis.* Relating to generation.

GENITAL ORGANS. The organs of generation.

GENITU'RA. The male seed. Also, the genitive organs of the male or female.

GENLIS, Z. C. Programme and Observations upon Third Dentition, by. Leipsic, 1786.

GENONU'SI. From γενος, sex, and νοσος, disease. Sexual diseases.

GENOS. Sex.

GENSANG. *Panax quinquefolium.* Ginseng.

GENTIAN. See Gentiana Lutea.

GENTIA'NA. The name of a genus of plants. Gentiana lutea.

GENTIANA ALBA. White gentian.

GENTIANA CACHENLAGUEN. Chironia chilensis. A species of gentian growing in Chili.

GENTIANA CATESBŒI. Blue gentian.

GENTIANA CENTAURIUM. Chironia centaurium.

GENTIANA CHIRAYITA. This species is a native of India, and is employed as a tonic, febrifuge, and alterative.

GENTIANA LUTEA. Gentiana rubra. The officinal gentian.

GENTIANA MAJOR. Gentiana lutea.

GENTIANINE. An alkali, obtained from gentian.

GENTI'LII MORBI. Hereditary diseases.

GENU. The knee joint.

GENUGRA. Gout in the knee.

GENUS. An assemblage of objects possessing characters common to each other.

GEOFFROY, SAINT-HILAIRE. The Dental System of Mammiferous Animals and Birds, by. Paris, 1824.

GEOFFRÆ'A INERMIS. Cabbage tree. Cabbage bark tree.

GEOPH'AGISM. From γη, earth, and φαγω, I eat. The practice of dirt-eating.

GERA'NIUM. From γερανος, a crane, because its pistils resemble the bill of a crane. The crane's-bill.

GERANIUM MOSCHA'TUM. Erodium moschatum. A European plant.

GERANIUM ROBERTIA'NUM. Stinking crane's-bill.

GERAULDY. The Art of Preserving the Teeth, by. Paris, 1737.

GERAULDY'S ABSORBENT POWDER FOR THE TEETH. ℞.—Coral, mother of pearl, crabs'-eyes, diaphoretic antimony, each ʒ iv. Pulverize and pass through a fine sieve, then porphyrise with a little plantain water, afterwards form the mass into little balls, and dry them in the shade; next powder them and pass through a sieve as before, when it should be boxed or bottled for use.

GERAULDY'S PASTE FOR THE TEETH. Take, of the above powder, ℔ i; dragon's blood finely pulverized, ʒ i; put them in a mortar of marble or earthenware, mix with a pound of Narbonne honey, incorporate the whole into the consistence of a thick syrup, with four ounces of the sugar of fresh kermes, eight ounces of plantain water, and three ounces of water of orange flowers, and mix with a spatula of ivory or silver. Let it remain for fifteen days, shaking it from time to time, then add a sufficient quantity of honey to make it of a proper consistence. It may now be put in small pots for use.

GERM. The germen; the rudiment of a being. Blastema.

GERM, DENTAL. A tooth papilla, or pulp.

GERBAUX. A Practical Treatise on the most frequent Diseases of the Mouth and Teeth, especially on the Accidents of First Dentition, &c. by. London, 1823.

GERMANDER. See Teucrium.

GERMEN. A germ.

GERMINAL CELL. A cytoblast.

GERMINA'TION. *Germinatio.*—In *Botany*, the act of sprouting. The first development of a seed.

GEROCO'MIA. From γερας old age, and κομεω, to be concerned about. That part of hygiene which relates to the health of the aged.

GEROCOMI'UM. An hospital for old persons.

GERONTOX'ON. A bow-shaped opacity around the cornea, occuring in aged persons.

GERSA. *Plumbi subcarbonas.* White lead.

GESTA'TION. *Gestatio;* from *gestare*, to carry. The period, during which the pregnant female carries the fetus in her womb. Also, passive exercise, such as swinging, riding in a carriage, &c.

GESTICULA'TION. The act of making many movements or gestures, a symptom exhibited in many diseases.

GEUM. The name of a genus of plants.

Geum Riva'le. Water avens, the root of which is astringent.

Geum Urba'num. The herb bennet, or common avens.

Geum Virginia'num. White avens. Evan root.

GEUMA. Taste.

GEUSION'OSI. From γευσις, taste, and νοσος, disease. Diseases of the function or organ of taste.

GEUSIS. Taste.

GIBBOSI'TAS. See Gibbosity.

GIBBOS'ITY. *Gibbositas;* from *gibbus*, a hunch or swelling on the back. A curvature and protuberance of the spine.

GIBBUS. A hunch or swelling on the back.

GIDDINESS. Vertigo.

GILEAD, BALM OF. Amyris opabalsamum.

GIINZ. Dissertation on the Fetor of the Gums, and Observations on Ulcerated Teeth, by. Leipsic, 1753.

GILLE'NIA. The name of a genus of plants. The gillenia trifoliata.

Gillenia Trifolia'ta. Indian physic. Western drop-wort. Ipecac.

GILLIFLOWER. Dianthus caryophyllus. Clove pink.

GIMBERNAT'S LIGAMENT.—The lower border of the aponeurosis, stretched from the anterior and superior spinous process of the ilium and crest of the os pubis.

GIN. Geneva. A spirit distilled from corn and juniper berries.

GINGER. Zingiber.

Ginger Beer. An effervescing beverage, obtained by fermenting ginger, cream of tartar and sugar with yeast.

Ginger, Wild. Asarum canadense.

GINGIBRA'CHIUM. From *gingivæ*, the gums, and *brachium*, the arm. Scurvy is called so, because the gums and arms are the parts principally affected by it.

GINGIVÆ. The gums.

GING'LYMOID. *Ginglymoideus;* from γιγγλυμος, a ginglymus, and ειδος, resemblance. A hinge-joint—a species of diarthrodial articulation.

GIN'GLYMUS. A hinge-joint.

GINSENG. Panax quinquefolium.

GILLES, ARNAULD. The Flower of Remedies against the Tooth-ache, by. Paris, 1622.

GIRAUD, J. The Good Mother, or a Treatise on the Means of Procuring for Children, a Strong and Lasting Constitution, particularly by a happy teething, by. Brunswick, 1790.

GIRMIR. Tartar.

GLABER. Glabrous; smooth.

GLACIES. Ice.

GLADIATE. Ensiform. Shaped like a sword.

GLAMA. The sordes of the eye.

GLAND. *Glandula;* from *glans*, an acorn. In *Anatomy*, an organ destined for the secretion or alteration of some peculiar fluid. It is composed of blood vessels, nerves and absorbents, and may consist of a *folliculus*, or small bag, at the termination of a duct; *lacuna*, or sac opening into the passage; *crypta*, as in the large intestines and kidneys, or *acinus*, which is a round body not regularly invested with a membrane, as is seen in the structure of the liver, which is principally made up of acini. Glands are divided into *simple*, *compound*, *conglobate*, and *conglomerate*. A simple gland is a small hollow follicle, with an excretory duct. The mucous glands of the tongue, fauces, nose, intes-

tines, urinary bladder, and the sebaceous glands of the ear, &c., belong to this class. A compound gland is made up of a number of simple glands, the excretory ducts of which unite into one common duct. A conglobate, is a gland, into which lymphatic vessels enter and go out. The mesenteric and lumbar glands are of this description. A conglomerate gland is formed of many simple glands, and the excretory ducts of which open into one common duct, as the parotid, salival and pancreatic.

GLANDERS. See Equina.

GLANDIFORM. Having the form or texture of a gland.

GLANDIUM. A kernel in the flesh.

GLANDULA. A little gland.

Glandula Bartholiniana. The sublingual gland.

Glandula Basilaris. The pituary gland.

Glandula Innominata Galeni. The lachrymal gland.

Glandula Pinealis. The pineal gland.

Glandula Riviniana. The sublingual gland.

Glandula Salivalis Abdominis.—The pancrease.

Glandula Thyreoidea. The thyroid gland.

GLANDULÆ ARTICULARES. The synovial glands.

Glandulæ Brunneri. Brunner's glands.

Glandulæ Cervicis Uteri. Naboth's glands.

Glandulæ Duræ Matris. See Glandulæ Pacchioni.

Glandulæ Intestinales. Peyer's glands.

Glandulæ Myrtiformes. Caruncule myrtiformes.

Glandulæ Odoriferæ. A number of very small glands around the corona of the penis and clitoris. They are also called Tyson's glands.

Glandulæ Pacchio'ni. A number of small, round, whitish granulations, clustered along the margin of the longitudinal fissure of the hemispheres, beneath the dura mater. In infancy they do not exist.

Glandulæ Plexiformis. Peyer's glands.

Glandulæ Sebaceæ Ciliares. The meibomian glands.

Glandulæ Vasculosæ. Conglomerate glands.

GLAND'ULAR. *Glandulosus.* Having the form, structure, function, or appearance of glands.

GLANS. A gland. Also, an acorn.

Glans Clitoridis. The extremity of the clitoris.

Glans Jovis. The chestnut.

Glans Penis. The extremity of the penis.

GLAREA. Gravel.

GLASS. Vitrum.

Glass of Antimony. Antimonii vitrum.

GLAUBER'S SALT. Sulphate of soda.

GLAUBRECT. Analytic Dissertation on the Tooth-ache, and its various remedies, especially the magnetic, by. Argent, 1766.

GLAUCE'DO. See Glaucoma.

GLAUCO'MA. From γλαυκος, sea-green. Dimness of vision from opacity of the vitreous humor. The name has, also, been applied to cataract.

GLAUCOSIS. Glaucoma.

GLECHO'MA HEDERA'CEA.—Ground-ivy, or gill.

GLE'CHON. Mentha pulegium. Pennyroyal.

GLECHONI'TIS. Wine impregnated with pennyroyal.

GLEET. A mucous discharge from the urethra.

GLE'NE. Γληνη. The pupil of the eye. Also, a shallow cavity in a bone for receiving the articular extremity of another bone.

GLENOID. *Glene;* from γληνη, the pupil, and ειδος, resemblance. A shallow articular cavity in a bone, as the glenoid cavity of the scapula, and of the temporal bone.

GLENOID LIGAMENT. A fibro-cartilagenous ring which surrounds and increases the depth of the glenoid cavity of the scapula, formed, apparently, by an expansion of the long head of the biceps flexor cubiti muscle.

GLI'RES. From *glis*, a dormouse. The name given by Linnæus to the tribe *rodentia*.

GLISCHROCH'OLOS. From γλισχρος, viscid, and χολη, bile. Bilious, viscid excrement.

GLISOMAR'GO. Chalk.

GLOBULA'RIA ALYPUM. The leaves of this plant are possessed of cathartic properties.

GLOB'ULE. *Globulus*. A minute sphere or globe.

GLOBULES OF THE BLOOD. Blood corpuscles. Blood disks. Small globular bodies observed in the blood when examined with a microscope. They are circular in mammalia and elliptical in birds and reptiles.

GLOB'ULIN. A peculiar albuminous principle which constitutes the nuclei of the globules of red blood.

GLOBUS. A globe or ball.

GLOBUS HYSTERICUS. A sensation experienced by hysterical persons, as if a round body were rising from the abdomen to the larynx.

GLOBUS MARTIALIS. Ferri potassio tartras.

GLOMER. A conglomerate gland.

GLOM'ERATE. *Glomeratus*. In *Anatomy*, a gland having no cavity, but furnished with an excretory duct, as the lachrymal and mammary glands In *Botany*, congregated.

GLOSSA. From γλωσσα, and γλωττα, the tongue. The tongue.

GLOSSAGRA. From γλωσσα, the tongue, and αγρα, a seizure. Severe pain of the tongue.

GLOSSALGIA. Glossagra.

GLOSSANTHRAX. From γλωσσα, the tongue, and ανθραξ, a carbuncle. A carbuncle of the tongue.

GLOSSIANUS. The lingual muscle.

GLOSSI'TIS. From γλωσσα, the tongue, and *itis*, signifying inflammation. Inflammation of the tongue.

GLOSSOCAT'OCHOS. From γλωσσα, the tongue, and κατεχω, I arrest. An instrument for depressing the tongue.

GLOSSOCE'LE. From γλωσσα, the tongue, and κηλη, a tumor. Protrusion of the tongue.

GLOSSO'COMA. Retraction of the tongue.

GLOSSO-EPIGLOT'TIS. Belonging to the tongue, and epiglottis.

GLOSSOG'RAPHY. *Glossographia*; from γλωσσα, the tongue, and γραφη, a description. A description of the tongue.

GLOSSOL'OGY. *Glossologia*; from γλωσσα, the tongue, and λογος, a treatise. A treatise on the tongue. The term, however, is usually used to designate a vocabulary, or dictionary, explanatory of obscure, antiquated, or local words.

GLOSSOL'YSIS. *Glossoplegia*;—from γλωσσα, the tongue, and λυσις, solution. Paralysis of the tongue.

GLOSSOMANTI'A. From γλωσσα, the tongue, and μαντεια, divination. Prognosis from the appearance and condition of the tongue.

GLOSSON'CUS. From γλωσσα, the tongue, and ογκος, a tumor. A swelling of, or tumor on, the tongue.

GLOSSO-PHARYNGEUS. Belonging to the tongue and pharynx, as the glosso-pharyngeal nerves and muscles.

GLOSSOPLE'GIA. See Glossolysis.

GLOSSOT'OMY. *Glossotomia*; from γλωσσα, the tongue, and τεμνειν, to cut. Excision, or dissection of the tongue.

GLOTTA. *Glossa*. Tongue.

GLOTTIS. From γλωττα, the tongue. A triangular opening at the upper part of the larynx, bounded on the sides by the chordæ vocales and arytenoid cartilages, and behind by the arytenoideus muscle.

GLUCO'SE. From γλυκυς, sweet. Grape sugar. Diabetic or starch sugar.

The sugar found in acid fruits and plants.

GLUCO'SURIA. Diabetes mellitus.

GLUE. Inspissated jelly from the parings of hides.

GLU'ME. *Gluma.* The husk; the calyx of grasses, and the envelops of the flowers of these plants.

GLUMO'SE. Flowers furnished with a calyx, or glume, like those of the gramineæ, or grasses.

GLUMEL'LE. *Glumella.* A little glume, or calyx.

GLUTÆUS. See Gluteus.

GLUTE'AL. Belonging to the buttocks.

GLUTEAL ARTERY. A continuation of the posterior internal iliac artery.

GLUTEAL NERVE. A branch of the lumbo-sacral nerve.

GLUTEN. A peculiar substance found in wheat and other grains, possessing glutinous properties. Paste.

GLUTEN, ANIMAL. Gelatine.

GLUTEN, VEGETABLE. See Gluten.

GLUTE'US. From γλουτος, the buttocks. A name given to muscles, arteries, nerves, &c. of the buttocks.

GLUTEUS MAXIMUS. A thick, fleshy muscle of a quadrangular shape, forming the convexity of the buttocks.

GLUTEUS MEDIUS. A thick, dense muscle situated in front and partly beneath the gluteus maximus.

GLUTEUS MINIMUS. A radiated muscle, situated beneath the gluteus medius.

GLU'TIA. The buttocks, or nates. Also, the corpora quaragemina.

GLU'TINE. Vegetable albumen.

GLUTINOUS. *Glutinosus.* Adhesive. Sticky.

GLUTTONY. Bulimia. Excessive appetite.

GLU'TUS. The buttock.

GLYCAS'MA. From γλυκυς, sweet. A sweet, medicated wine.

GLY'CERINE. From γλυκυς, sweet. The sweet principle of the various oils.

GLYCYRRHI'ZA. From γλυκυς, sweet, and ριζα, a root. The name of a genus of plants. Liquorice.

GLYCYRRHIZA GLABRA. The officinal liquorice.

GLYCYRRHI'ZINE. The sugar of liquorice.

GLYSTER. An enema.

GNAPHA'LIUM POLYCEPH'ALUM. Sweet-scented life everlasting.

GNATHI'TIS. From γναθος, the cheek, the jaw. Inflammation of the cheek or upper jaw.

GNATHOPLE'GIA. From γναθος, and πληγη, a stroke. Paralysis of the cheek.

GNATHORRHAG'IA. From γναθος, and ρηγνυμι, to burst forth. Hemorrhage from the internal surface of the cheek.

GNATHOSPASMUS. From γναθος and σπασμος, spasm. A spasmodic contraction of the muscles of the lower jaw.

GODFREY'S CORDIAL. An anodyne nostrum.

GOBLIN, D. J. Manual of the Dentist, to be used for Examinations, or a Treatise on Dental Surgery, considered in its Anatomical, Physiological, Hygienic and Pathological Relations, by. Paris, 1827.

GOBLIN'S POWDERS FOR THE TEETH. 1. Take, calcined alum, ʒ i; Florentine orris in powder, ʒ iij; cream of tartar, ʒ ij; pulverized cochineal, ʒ ss; essence of cloves, gtt. iv. Mix. 2. Take, porphyrised red coral, fine cinnamon, ā ā ʒ ij. 3. Take, carbonate of magnesia, ʒ ss; quaroxalate of wood sorrel, ʒ ss; pulverized red coral, ʒ i; essence of mint, gtt. iv. Mix. 4. *Tonic powder.*—Take, finely pulverized cinnamon, ʒ ss; cinchona, orange, in fine powder, ā ā ʒ i; cloves, in powder, gr. x. Mix. 5. Take, red cinchona, ʒ i; pulverized charcoal, ʒ i. Mix, and suitably aromatise.

GOBLIN'S PASTES FOR THE MOUTH. 1. Take, catechu, ʒ ij; coral, ʒ iv; sugar, ʒ iij; essence of cinnamon, gtt. x. Mucilage a sufficient quantity to form into a paste. 2. Take, prepared

charcoal, sugar, ā ā ʒi; essence of citron, gtt. iv. Mucilage, g. s.

GOITRE. Bronchocele.

GOLD. *Aurum.* The most valuable of metals, and found either in its native state, or combined with silver, copper or iron. It is of a yellow color, very brilliant, and possessed of great density, ductility and malleability.

In *Therapeutics*, various preparations of it are used, and in *Dental Surgery*, it is very extensively employed, both for filling teeth, and in the construction of dental substitutes, and artificial palates and obturators. With the exception of platina, it is the only metal that can be placed in the mouth with impunity. When used for filling teeth, it should be pure, but for other dental purposes, it should contain a small quantity of alloy.

GOLD, ALLOYING OF. Gold in an unalloyed or pure state, is too soft to serve as a basis or support for artificial teeth, and, consequently, it has been found necessary to combine with it some other metal or metals to increase its elasticity. Silver and copper are the alloys most frequently employed. Some prefer the former, for the reason as is erroneously supposed, that it does not increase as much as does the latter, the liability of gold to oxydize. But gold, when alloyed with copper, unless reduced altogether too much for dental purposes, will resist the action of acids as effectually as when alloyed with silver, and the former renders it much harder than the latter. Besides, it renders the gold susceptible of a much higher and more beautiful finish. If, therefore, but one of these metals be used, copper may be regarded as preferable to silver, but the author is of opinion, that two or three parts of the former, and one of the latter, constitutes a better alloy for gold, which is to be used as a basis for artificial teeth, than either, separately from the other.

The gold employed in mechanical dentistry by most practitioners, is altogether too impure for the purpose, it being not more than from fifteen to seventeen carats fine, and sometimes it is reduced even to fourteen. When not above these standards of fineness, the buccal secretions not only corrode and discolor it, but it imparts an exceedingly disagreeable taste to the mouth. The plate which is to serve as a basis for artificial teeth should never be reduced below twenty carats, and as that for the upper jaw does not require to be more than one-third or one-half as thick as that for the lower, the gold for the latter should be a little finer than that employed for the former, as it is necessary that it should be more malleable. The following standards of fineness, may be regarded as the best that can be adopted for gold to be used in connection with artificial teeth.

Plate for the upper jaw, twenty carats; for the lower twenty-one, and for clasps and wire for spiral springs, eighteen. In reducing perfectly pure, or twenty-four carat gold, to these standards, the following are the proper proportions of alloy to be employed:

1. For twenty carat gold; take 20 dwts. pure gold, 3 dwts. fine copper, and 1 dwt. silver.

2. For twenty-one carat gold; take 21 dwts. pure gold, 2 dwts. fine copper, and 1 dwt. silver.

3. For eighteen carat gold; take 18 dwts. pure gold, 5 dwts. best copper, and 1 dwt. silver.

The gold should be first melted in a clean crucible, in the manner to be hereafter described, and as soon as it has become thoroughly fused, the silver and then the copper should be thrown in, with two or three small lumps of sub-borate of soda. After keeping the whole in a fused state for some five or ten minutes, it may be poured into an ingot mould of the proper size, previously warmed and thoroughly oiled. If the gold cracks during the process of hammering or rolling, it should again be melted, and a few small pieces of sub-borate of soda, with a little muriate of ammonia thrown

in. In five or ten minutes it may be again cast into an ingot.

When scraps and filings are to be converted into plate, they should first be refined in the manner as described in another place, and afterwards properly alloyed. This may also be necessary with all gold, the quality or fineness of which is not known, but with national coins having a known fixed standard, this will not be necessary, unless they are below twenty-one or twenty carats. When they are above these standards of fineness, a sufficient amount of alloy may be added to reduce them to the one required.

When several coins of different degrees of fineness are to be melted at the same time, the mean carat and aggregate weight of the gold should be ascertained, and if it be above the standard required a sufficient quantity of alloy should be added to reduce it, but if it be below it, it should be refined until it comes up to it.

The following is the manner adopted by Dr. Joseph Lee, of Camden, S. C. in alloying gold for bases and clasps for artificial teeth: to twenty British gold sovereigns add one dollar of old Spanish silver. "This," says Dr. L., "makes a tough alloy of a fine color, unalterable in the mouth." He also states that he uses the same alloy for clasps, "as it is of great importance to have every part, as near as possible, of the same fineness, to avoid galvanic action.

"When I use the gold of our South Carolina mines, I alloy with four penny-weights of silver coin and two of pure copper to the ounce of gold. In some of our mines there is a slight alloy of bismuth which renders the gold brittle and of the color of dirty brass. This is easily oxydized by a charge of saltpetre, and afterwards melting in a clear crucible with borax. It is useless to pour the gold into the ingot while it shows a dirty surface in the crucible as it will crack under the hammer."

Gold Foil, Dentists. *Aurum foliatum.* Gold leaf. The gold foil, or leaf, employed by dentists for filling teeth, is much thicker than that ordinarily used, and when properly prepared, constitutes the best material that can be employed for this purpose. The gold, however, should be pure, and the leaves thin and well annealed previously to being used. Although gold has been employed since the early part of the eighteenth century for filling teeth, it was not until about the year 1800, that its use became common among dentists, owing, no doubt, to the fact, that the manufacture of foil had not, previously to this period, been brought to a sufficient degree of perfection to render it practicable to fill a very large or badly shaped cavity in a tooth with it.

Although there may be no difference in the purity of the gold, and thickness of the leaves, yet, a marked and great difference exists in the malleability and toughness of the foil of different beaters. The art of preparing gold for filling teeth is an exceedingly nice and difficult one, and, it is believed, has attained greater perfection in the United States than any other country; or, at any rate, this fact is so generally admitted, that many of the most eminent European practitioners, procure most if not all they use, from Mr. Charles Abbey of Philadelphia, the oldest manufacturer in America. There are, however, many other gold beaters in the United States who manufacture good gold foil.

The thickness of the leaves is determined by the number of grains which each contains, and is designated by numbers on the books, between the leaves of which they are placed, after having been properly annealed. These vary from 4 to 20. For example, a book containing a quarter of an ounce of No. 4, will have thirty leaves in it. The weight of the leaves, generally, vary two grains, so that the numbers run, 4, 6, 8, 10, and so on up to 20. Some dentists, in their practice, use foil varying in Nos. from 4 up to 20, while others

confine themselves to a single No. If but one No. be used, 6 will, perhaps, be found to be better than any other. Great advantage, however, may be derived from the employment of, at least, three or four different Nos. in filling cavities of different sizes and situations in the teeth. The Nos. which the author prefers, and is generally in the habit of using, are 4, 6, 8, 10, and 15, but more of the second than any of the others.

As many of the dental profession are probably unacquainted with the mode of preparing gold foil, now so extensively used by them, and of so much importance in their practice, a brief description of the manner of manufacturing it, may not be uninteresting to them.

The first requirement is, the purity or fineness of the gold. There are various methods of freeing gold from foreign matter or alloy, but we shall speak of only one, that which is most in use among assayers, and generally known by the name of parting.

By this process, a quantity of silver, equal to three times the weight of the gold to be refined, must be melted with it, and well mixed by being stirred up in the crucible, and then poured into an ingot, rolled very thin and cut into small pieces; or instead of this, the melted mixture may be poured into a vessel containing water which is rapidly revolving; this latter procedure, is called granulating, and will serve equally as well as the other. The whole mass is now put into a glass matrass, and a quantity of nitric acid poured on it. The matrass is now placed in a sand bath, moderately heated at first. The action of the acid commences immediately, and when it becomes completely saturated with the silver, it must be carefully poured off into a vessel containing water, and a fresh supply of acid poured into the matrass, and the action continued until the whole of the silver is decomposed or dissolved, which may be known by the colorless appearance of the fumes. The pure gold remaining in the matrass has a brown appearance, is easily broken with the fingers, but its metallic qualities have not been affected, and only requires to be melted to be ready for use.

The silver may be collected by placing a sheet or bar of copper in the liquid, previously well diluted, and may be used again for the same purpose when another refining is required.

The gold being now refined, is melted and cast in an ingot about one inch in width, and is ready for manufacturing into foil. A piece weighing about two and a half ounces is cut from the bar and rolled to the length of about fifteen feet, which is equally divided into 160 pieces or squares, then put into the centre of a tool called a "cutch," made of vellum MS. books of the 13th and 14th centuries, about four inches square and containing 165 or 170 leaves, enough to hold the whole 160 squares of gold, and which is called a "beating."

The cutch being "filled," is encased on all sides with parchment wrappers or "bands," when it is ready for the process of beating, which is performed by manual labor, with iron hammers weighing from eight to fifteen pounds, wielded with one hand, the other being required to hold the tool.

The beating is continued until the gold is forced out beyond the edges in sufficient quantities to leave the foil of the desired weight. The protruding edges are now scraped or cut off with a knife, and the sheets of foil carefully laid out and the rough edges trimmed off with a pair of scissors, when it is ready for the process of softening or annealing.

The annealing process is one of the greatest importance, and is variously performed. Some manufacturers do it by placing a sheet upon a wire grating and holding it over a fire or spirit lamp; others heat a plate of stone, and lay the gold upon it, whilst others again, place it directly on a charcoal fire; each, proba-

bly, thinking his own method the best, but whatever one is adopted, great care and patience is required in doing it; and as the operation is necessarily slow, as only one leaf can be annealed at a time, and a great deal of heat required, it is very exhausting to the system, and particularly injurious to the eyes. After the foil is annealed, it is put into books, when it is ready for use.

The foregoing description refers to No. 6 foil; for No. 8 or 10, a greater quantity of gold is required at starting.

The vellum books made use of for tools—the relics of centuries gone by, are many of them beautifully illuminated, and the different colors remain as bright as when first put on. Some of them must have required the greater part of an ordinary life-time for their completion, and after having performed their part in the world as literary productions, are made to perform a very different part, one never contemplated by their authors, namely, that of forming an indispensable tool for the manufacture of *dentist's gold foil.*

Gold Plate, Manner of Making it. This being an article much used in the construction of dental substitutes, the author will here describe the manner of making it.

The gold, after being melted in a clean crucible, rubbed on the inside with borax (sub-borate of soda) is poured into an ingot mould of the proper length, width and thickness, and after it has cooled, is reduced by hammering it on an anvil, to the thickness of about an eighth of an inch. It should now be annealed by placing it in a charcoal fire, or furnace, and heated until every part becomes red. It may be necessary during the operation of hammering, to subject it several times to this process, to prevent the gold from cracking, and if, notwithstanding this precaution, it does crack, it should be remelted, and a little muriate of ammonia thrown on it in the crucible while in a fused state. It may then be recast into an ingot, and the hammering proceeded with as just described.

When it is reduced to the thickness above mentioned, it should be annealed and then placed between the rollers of a rolling mill, so adjusted as to be the same distance apart at both ends, and not so near to each other as to require a very great effort to force the gold between them. The rollers should be brought a little nearer to each other every time the plate is passed between them, and during this process they should be kept well oiled, that there may be no more friction than possible.

In the mean time the gold should be frequently annealed, and the thickness of the plate determined by a gauge. Gold plate intended for a basis for artificial teeth for the upper jaw, should be reduced until it fits the slits in the gauge, marked 25, 26, or 27, according to the thickness required; and for the lower jaw, until it fits in 21 or 22; for backings, in 24, and for clasps in 23. But it is sometimes necessary to vary the thickness of the plate used for these several purposes; as for example, when the whole alveolar border and a portion of the roof of the mouth is to be covered, the plate may be thinner than when it is to be applied only to a small surface. But these are matters which the judgment of the dentist alone can properly determine, and consequently no rules can be laid down, from which it will not sometimes be necessary to deviate.

Gold, Refining of. In the description given of the method of manufacturing gold foil, one of the processes for refining gold, is briefly noticed, but there are other methods which it will be proper to mention. The first is employed in some of the mints, and is termed, "cementation." This consists in first rolling the gold out into exceedingly thin plates, then placing it with a mixture of four parts of brickdust, one of sulphate of iron, calcined to redness, and one of muriate of soda, in a crucible. A bed of this mixture, or cementing powder,

should first be placed in the bottom of the crucible; the gold should then be put in and covered with it. The crucible should be covered with another crucible, the joints well luted with clay, and exposed to a heat gradually raised to a red heat, at which elevation of temperature it should be kept from twenty to twenty-four hours. The crucible should now be removed from the fire, the top broken off, and after the latter has cooled, the gold should be separated from the cement and washed with hot water, or what is still better, boiled in hot water.*

The kind of furnace which should be employed for melting gold may be very simple, such, for example, as is used by gold and silversmiths, or the one invented by Dr. Somerby, in connection with his concentrated blow-pipe. See Blow-pipe and Furnace, Somerby's. But in the absence of either of these, a furnace similar to the one used by the Ceylonese goldsmiths may be substituted. This consists of a small low earthen pot, filled with chaff, or saw-dust, on which a little charcoal fire may be made, which is excited with a small bamboo blow-pipe, about six inches long, the blast being directed through a short earthen pipe or nozzle, the end of which is placed at the bottom of the fire.† By this simple contrivance, a most intense heat, greater, it is said, than is required for melting gold or silver, may be obtained.

For separating copper, tin, lead or zinc, from gold, the following simple method may be adopted: put the gold in a clean crucible covered with another crucible, having a small opening or hole through the top; lute the two together with clay, place them in a bed of charcoal in the furnace, ignite the coal gradually, afterwards increase the combustion by means of a current of air from a pair of bellows, such as are usually used in connection with small furnaces; after the gold has melted, throw in several small lumps of nitrate of potassa (salt-petre) and sub-borate of soda, (borax,) and keep it in a fused state for thirty or forty minutes, then separate the two crucibles and pour the metal in an ingot mould of the proper size, previously warmed and well oiled. Most of the base metals will be dissipated during the process of fusion in the form of vapor, the lead escaping into the pores of the crucible. The bichloride of mercury (corrosive sublimate) is sometimes used instead of the nitrate of potassa, for the purpose of dissipating the base metals, and, often with more certain and better results. If the gold cracks on being hammered or rolled, it should be melted again, and more nitrate of potassa, and sub-borate of soda thrown into it, and the inside of the crucible should be well rubbed with the latter, before the metal is put in. It is sometimes necessary to repeat this process several times, and if the gold still continues brittle, a little muriate of ammonia (sal ammoniac) should be thrown into the crucible when the gold is in a fused state, and after the vapor ceases to escape, the metal should be poured in an ingot mould, warmed and oiled as before directed. This last method of treatment will make the gold tough, and prevent it from cracking under the hammer, or while being rolled, if it be, from time to time, properly annealed.

To separate platina from gold, it is necessary to dissolve the alloy in a mixture of muriate of ammonia and nitric acid, which will cause the former metal to be precipitated. The acid should then be poured into another vessel, and the gold precipitated by pouring a solution of sulphate of iron into it.

By the foregoing methods of refining gold, sufficiently accurate results may be obtained for all useful practical purposes in mechanical dentistry, and as this is the object at which the author

* Chemistry of the Arts, vol. ii, p. 551.

† Chemistry of the Arts, vol i, pp. 545-'6, and 550-'1.

Unable to display this page

carbonate of potassa is the only flux that will bring all the small particles of metal into one mass; without it, a great portion of the gold will be found among the scoria, adhering to the sides of the crucible, in the form of small globules. This process of refining, answers equally as well for silver as gold."

Gold Solder. Gold alloyed with one or more metals. But "the metals used in making solders," as Dr. W. H. Elliot correctly observes, "should be refined separately before weighing," for without this precaution, it would be difficult to ascertain their relative degrees of fineness. This done, the gold should be placed in a clean crucible with a little borax, and as soon as it has become completely fused, the silver, and afterwards the copper, these being the proper alloys for gold solder, may be added. When the whole are melted, the alloy may be immediately poured into an ingot mould, previously warmed and oiled.

The ingot should now be hammered on an anvil, and afterwards passed through a rolling-mill until it is reduced to a very thin plate, when it is ready for use.

The solder employed for uniting the various parts of a piece of dental mechanism, should be sufficiently fine to prevent it from being easily acted on by the secretions of the mouth. The following exhibits the relative proportions of the metals most frequently employed for three different qualities of gold solder.

Fine Flowing Gold Solder.

No. 1.—2 dwts. 22 carat gold,
16 grs. fine silver,
12 grs. roset copper.

No. 2.—1 dwt. 15 grs. 22 carat gold.
16 grs. fine silver.
12 grs. roset copper.

The following makes a finer solder than either of the above, and, although it requires a little stronger blast to fuse it, it flows very freely.

No. 3.—6 dwts. pure gold,
2 dwts. roset copper,
1 dwt. fine silver.

In making gold solder, if the proper relative proportions of the different metals are varied even half a grain, it will affect the flowing of it, a quality which it is very desirable for it to possess.

Dr. J. Lee, of Camden, S. C., recommends the following as an excellent solder: "Take eight parts of plate alloy (made in the proportion of one dollar silver to twenty British sovereigns) and one part of silver, melt them, and as soon as melted, add one part clean scraped sheet-brass—turn it out immediately into an ingot, and then with a mill roll it into thin strips."

"This solder," says Dr. L., "I have used several years; it is of the same color of the plate, and is not discolored in any mouth. The brass causes it to flow evenly."

Gold Thread. Coptis trifolia, a ranunculacious plant.

Gold Wire. See Spiral Springs.

GOECKEL, EBERB. Epitome of the Theory and Treatment of Odontalgia, by. Nordl, 1688.

GOGUELIN, J. G. Memoirs upon Scurvy, by. S.—Brienc, 1804.

GOMPHI'ASIS. *Gomphiasmus;—agomphiasis;* from γομφος, a nail. Disease, pain, or loosening of the teeth, especially the molares. It is generally the result of a partial destruction of the alveolar processes, caused by disease of the gums and alveolo-dental periosteum. The teeth are, sometimes, slightly loosened from inflammation, and, as a consequence, a thickening of the peridental membranes.

GOMPHIAS'MUS. Gomphiasis.

GOMPHIOI. Dentes molares.

GOMPHO'SIS. Γομφωσις, from γομφος, a nail. *Gomphoma.* An immovable articulation in bones, in which one bone is received into the cavity of another, like a nail in a board. The articulation of the teeth with the alveoli fur-

nish the only example of this species of articulation.

GON'AGRA. *Gonyagra;* from γονυ, the knee, and αγρα, a seizure. Gout in the knee.

GONAL'GIA. Pain in the knee.

GONARTHRI'TIS. From γονυ, the knee, αρθρον, joint, and *itis*, inflammation. Inflammation of the knee.

GONGRO'NA. Bronchocele.

GONORRHŒ'A. From γονη, the semen, and ρεω, I flow. Literally, an involuntary discharge of semen, but used to designate a discharge of mucus from the urethra, which may result either from the direct application of irritants to the lining membrane of this passage, or from impure sexual connection. The former is termed *gonorrhœa benigna*, and the latter, *gonorrhœa virulenta, maligna*, or *venerea*.

GONORRHŒ'AL. Relating to gonorrhœa virulenta.

GONYAG'RA. Gout in the knee.

GONYAL'GIA. Gonalgia.

GONYON'CUS. From γονυ, the knee, and ογκος, a tumor. A swelling of the knee.

GOOSE-FOOT. Chenopodium anthelminticum.

GORGET. An instrument used in the operation of lithotomy.

GOSSYP'IUM HERBACEUM.—The cotton plant.

GOULARD'S CERATE. The ceratum plumbi subacetatis.

Goulard's Extract. Liquor plumbi subacetatis dilutus.

GOURD, BITTER. *Cucumis colocynthis.* Bitter apple. Bitter cucumber.

Gourd, Worm. Distoma hepaticum.

GOUT. *Arthritis; podagra; chiragra; morbus articularis.* Pain, redness and swelling in the joints, especially that of the great toe, and those of the feet and hands.

Gout, Diaphragmatic. Angina pectoris.

Gout, Rheumatic. Acute rheumatism.

Gout-Weed. An umbelliferous plant, formerly used for mitigating the pain of gout.

GOUTTES D'OR DU GENERAL LAMOTTE. De Lamotte's golden drops.

GRAC'ILIS. Slender. The rectus interior femoris, a long slender muscle of the thigh.

GRAIN. *Granum.* The 60th part of a troy drachm.

GRA'MEN. Grass. Any grass-like herb.

Gramen Ægyptiacum. Egyptian cock's-foot grass. Grass of the cross.

Gramen Crucis Cyperioidis. Gramen Ægyptiacum.

GRAMIN'EÆ. The natural family of the grasses.

GRAM'MA. A scruple.

GRAMME. A French weight, equal to 15.434 grains troy, or $\frac{5.6.5}{1.0.0.0}$ drachm avoirdupois. The 24th part of an ounce. Also, the iris.

GRANADIL'LA. The passion flower.

GRANA ACTES. Elder berries.

Grana Moschata. Musk-seed. See Hebiscus Abelmoschus.

Grana Paradisi. Amomum granum paradisi. The greater cardamon seeds.

GRANATUM. The pomegranate.

GRANDHOMME, M. P. A. Reflections on the Means Employed at the Present Day, for Regulating the Teeth, with a Description of a New Method of Procedure, by. Paris, 1845.

GRANDIN, D. S. Neuralgia Facialis, by. Published in American Journal of Dental Science, vol. first.

GRANIF'EROUS. From *granum*, grain, and *fero*, to bear. Bearing grain.

GRANULAR DISEASE OF THE KIDNEY. Bright's disease of the kidney, consisting of granular degeneration, with albuminous urine.

Granular Liver. Cirrosis.

GRANULA'TION. *Granulatio;* from *granum*, a grain. Red, flesh-like bodies of a conical shape, which form on the surfaces of ulcers and suppurating wounds. They serve to fill up their

cavities, and to unite their sides. Also, organic lesions, consisting in the formation of small, semi-transparent oval tumors, resembling the millet seed. They are most frequently met with in the lungs. In *Chemistry*, metals reduced to grains or small particles.

GRAN'ULE. *Granulum.* A small grain.

GRANUM. A grain or kernel.

GRAPE. See Vitis Vinifera.

GRAPH'ITE. *Graphites.* Plumbago. Black lead.

GRASSA. Sub-borate of soda.

GRASS OIL OF NAMUR. A volatile oil obtained from Indian nard, or spica nardi.

GRASSO. Author of a Paper upon Difficult Dentition, published at Erfort.

GRATI'OLA OFFICINALIS. Digitalis minima. Hedge-hyssop.

GRAVEL. *Lithia renalis.* Small calculus concretions formed in the kidneys, which pass into the urinary bladder and are expelled with the urine.

GRAVEL ROOT. The root of the eupatorium purpureum.

GRAVER. An engraving instrument. An instrument consisting of a steel stem, fixed in a handle, with a sharp point, shaped to suit the particular purpose for which it is intended. It was formerly much used by dentists in the manufacture of artificial teeth from ivory and the tooth of the hippopotamus, but as the use of these substances for dental substitutes has been almost altogether superseded, it is now seldom employed except in finishing such substitutes as are fixed on metallic bases.

GRAVITA'TION. The act of moving towards the centre, as when a body falls to the earth.

GRAV'ITY. *Gravitas;* from *gravis*, heavy, weight, heaviness. The tendency of a body towards the centre, or of bodies towards each other.

GRAVITY, SPECIFIC. *Gravitas specifica.* The density or weight of a body, compared with the density or weight of another of the same bulk, assumed as the standard. For solids and liquids, water is the standard, and common air for gases. The weight of a solid of any given dimensions, compared with the weight of the same bulk of water, is, its specific gravity. Thus, if a solid be first weighed in air, and then in water, it will be found in the latter case to have lost of its weight a quantity equal to the weight of its own bulk of water. Now by dividing the total weight by the loss of weight in water, the quotient will show the specific gravity.

GRAY, JOHN. Preservation of the Teeth Indispensable to Comfort and Appearance, Health and Longevity, by. London, 1840.

GRAY LOTION. The black wash.

GREEN SICKNESS. Chlorosis.

GREEN VITRIOL. Sulphate of iron.

GREENWOOD, ISAAC I. Author of an Article on the Treatment of Tooth-ache, and of the Report of a Case of Diseased Antrum successfully treated.—Also, of a Paper on Filling Teeth; all of which were published in the American Journal of Dental Science, vols. second and third.

GREENWOOD, JOHN. Late dentist of New York, and second son of Isaac Greenwood, the first practical dentist in Boston, who was a son of Rev. Isaac Greenwood, professor of mathematics and natural philosophy in Harvard College, Cambridge, Massachusetts, was born in Boston, May 17th, 1760. He received his education at what was known as the North School of Boston, where there were in attendance between three and four hundred boys from all classes of society, instructed by two teachers, in the first rudiments of a plain English education.

At the early age of thirteen, he was placed with his uncle, Thales Greenwood, a cabinet maker, of Portland, Maine, as an apprentice, but at the expiration of two years, and at the first

outbreak of the revolutionary war, animated by the spirit of ambition and patriotism which every where manifested itself in the colonies, anticipated his majority, and sundered the bonds of his apprenticeship, on a Sunday morning, while his uncle's family were at church. He immediately enlisted for eight months as a soldier in the American army, and during this period was at the battle of Bunker's Hill and Trenton. From the termination of the period of his enlistment, nearly the whole time, until the conclusion of the war, young Greenwood served on board of various privateer and other vessels, in the several capacities of seamen. Two of the vessels on board of which he served, were captured, and the officers and men made prisoners. The first time he was released after an imprisonment of five months, and the second time, he escaped.

At the conclusion of the war, finding himself without the means of support, or any available profession, he visited his youngest brother, Clark Greenwood, who was in New York, practicing dentistry, but as he received no encouragement from him, he determined to seek employment again as a seaman. In the meantime he became acquainted with a Mr. Quinzey, a nautical and mathematical instrument maker, who furnished him the means of engaging in several speculations, but which not proving very profitable, Mr. Q., ultimately, sold out his tools to Mr. Greenwood, and moved to Boston.

Soon after having engaged in this new business, Dr. Gamage, requested Mr. Greenwood to extract a tooth for one of his patients, which he accomplished very successfully. This was the commencement of his practice as a dentist. He was, however, for some time after this employed in the manufacture of nautical and mathematical instruments, and ivory turning, and practicing dentistry as opportunity offered. The demand for his services, however, in the last mentioned capacity, soon increased to such an extent that he was compelled to abandon his other occupations, and to procure the assistance, first, of Wm. Pitt, and afterwards of Clark Greenwood, his brothers, to enable him to meet his numerous professional engagements. Up to this time, 1786 or '7, he occupied an office near the Old Tontine Coffee House, but he now removed to the corner of William and Beakman streets, opposite general Washington's office. He here made the acquaintance of general Hamilton, colonel Burr, and other general officers of the army, and influential individuals. He, also, soon became acquainted with general Washington, for whom he manufactured a number of sets of teeth. The following letter from Gen. Washington, will serve to exhibit the estimation placed upon his professional skill as a dentist:

"*Mount Vernon, Jan. 6th*, 1795.

"Sir—Your letter of the 28th ult., with the parcel that accompanied it, came safe to hand. I feel obliged to you for your attention to my request and for the directions you have given me.

"Enclosed you will find bank notes for fifteen dollars, which I shall be glad to hear have got safe to your hands. If you should return to Connecticut, I should be glad to be advised of it, and to what place, as I shall always prefer your services to those of any other in the line of your present profession.

"I am, sir,

"Your very humble servant,

"G. Washington.

"I thank you very much for your obliging attention to my requests, and am, sir, with esteem and regard,

"Your very humble servant,

"G. Washington.

"To *John Greenwood*.

"P. S. I am ready and willing to pay what you may charge me."

Mr. Greenwood was familiar with

such dental literature as existed at his time, and was well informed in the surgical department of his profession. An old copy of Hunter on the teeth, with marginal notes by Mr. G., and its well-thumbed leaves, now in the possession of his son, Dr. Isaac I. Greenwood, bears ample testimony to the careful attention with which he perused its pages. During his practice, in the treatment of a diseased maxillary sinus, he perforated this cavity from the socket of an upper molar tooth, and effected a cure of the disease. It has been said that he was the first to strike up a gold plate to serve as a base for artificial teeth, in the United States, and that without having seen a description of the process, or known that it had ever been done, at that time, 1799. He was in the habit of constructing sets of artificial teeth with stained gums, and during his professional career, he frequently corresponded with that eminent French dentist, C. F. Delabarre, from whom he procured a large quantity of human teeth, which he used in his practice.

As early as 1789, he constructed an upper and under set of teeth for general Washington, with artificial gums, secured in the mouth with springs. In the lower piece an opening was left for a single remaining tooth. This afterwards dropped out and is now in Mr. Greenwood's family as a relic.

Mr. Greenwood continued to practice his profession until 1815, when he died from an attack of apoplexy.

GRI'AS CAULIFLORA. The anchovy pear.

GRIE'LUM. Parsley and smallage.

GRINDING APPARATUS, ELLIOT'S IMPROVED. An improvement made by Dr. Elliot, of Montreal, which consists in placing the stone upon an upright shaft, so as to bring its face horizontally.

GRIPES. The colic.

GRIPPE. From *gripper*, to gripe. To catch hold of. The influenza.

GROATS. Hulled oats.

GROG-BLOSSOMS. Gutta rosea.

GROMWELL. Lithospermum officinale.

GROS. Drachm.

GROSSULA'RIA. The gooseberry.

GROUND BERRY. Gaultheria.

Ground Nut. Bunium bulbocastanum.

Ground Pine. Teucrium chamæpitys.

GROUSEBERRY. Gaultheria.

GROUSSET. Dissertation on Dentition, or the Development of the Teeth in Man, by. Paris, 1803.

GRUN. Dissertation upon Odontalgia, by. Jena, 1795.

GROWTH. The development of the body, especially in height. Also, the development of a morbid tissue.

GRUINA'LES. Plants that resemble the geranium.

GRUMUS. A coagulum; a clot of blood.

GRUTUM. *Grutum milium.* A hard, white pimple, or tubercle of the skin, resembling a millet-seed

GRYPHO'SIS. From γρυποω, I incurvate. Incurvation of the nails.

GRYPHUS LAPIS. The philosopher's stone.

GUACO. The eupatorium guaco, a plant of South America.

GUAI'ACUM. The gum resin of the officinal guaiacum. Also, the name of a genus of plants.

GUAJAVA. *Guavo; guajabo.* The guava tree.

GUAVA APPLE. Psidium pomiferum.

GUBERNAC'ULUM DENTIS. A name given by M. Serres, a French anatomist, to the small chord which connects the sac of a tooth with the gum. This appendage is described by Delabarre as being hollow, and as playing an important part in dentition. See Dentition, and Teeth, origin and formation of.

Gubernaculum Testis. *Ligamentum testis.* A name given by Hunter to a fibro-cellular chord; which, in the

fetus, extends from the scrotum to the testis.

GUERTIN. Advice upon the Preservation of the Teeth, and upon Artificial Teeth, in Spanish, by. Paris, 1819.

GUILANDI'NA MORIN'GA. The name of a genus of plants. The plant which produces the ben nut.

GULA. The upper part of the œsophagus and pharynx.

GULLET. The œsophagus.

GUM. *Gummi.* A concrete vegetable juice which exudes from certain trees, generally transparent, more or less brittle when dry, and soluble in water. Also, the fleshy substance which surrounds the necks of the teeth and invests the alveolar border. See Gums.

Gum Acacia. The concrete juice of the acacia vera and other species of acacia. Gum arabic.

Gum Boil. Alveolar abscess.

Gum Elastic. Caoutchouc.

Gum Lancet. *Dentiscalpium; odontoglyphon.* A curved instrument or knife for separating the gums from the neck of a tooth, previous to extraction. The gum lancets usually employed, are shaped like a fleam, but different dentists have them constructed differently. Two, however, are required in the performance of the operation. One with a thin, narrow, curved blade, oval at the point, and another with a sharp-pointed narrow blade, with only one edge. The former may be employed for separating the gums from the lingual, labial and outer sides of the teeth, and the latter from their approximal sides.

Gum, Red. A red cutaneous eruption which occurs in infancy and generally during first dentition.

Gum, Wasting of. See Ulatrophia.

GUMMA. An elastic tumor on the periosteum, especially of the cranium and sternum, usually resulting from a syphilitic taint.

GUMMI. See Gum.

Gummi Acaciæ. Gum arabic.

Gummi Carannæ. A resinous substance, said to be derived from *amyris caranna*, a tree of Mexico and South America.

Gummi Cerasorum. The gum which exudes from the bark of cherry trees.

Gummi Courbaril. Gum anime, a resin said to be derived from the *hymenæa courbaril.*

Gummi Euphorbii. A concrete resinous juice from one or more species of euphorbia.

Gummi Kino. See Kino.

Gummi Lutea. A gum resin produced by the grass-tree of New South Wales.

Gummi Myrrhæ. Myrrh, a resinous exudation from the *balsamodendron myrrha.*

Gummi Nostras. The gums obtained from indigenous trees, as the cherry, apricot, almond, peach, &c.

Gummi Rubrum Gambiense. Kino.

Gum-Resin. *Gummi resina.* The concrete juices of plants, consisting of gum and resin, frequently associated with essential oil, and other substances.

GUMS. *Gingivæ.* Ουλα. A thick, dense, mucous membrane, adhering to the periosteum of the alveolar border, and closely surrounding the necks of the teeth. The texture of the gums, however, differs from that of the membrane of which they are composed. This membrane lines the cavities of the mouth and nose, the maxillary and frontal sinuses, the whole alimentary canal, and is a continuation of the skin covering the outer surface of the body. From the change of structure, however, which it undergoes after entering the mouth, it may be regarded as an entirely different membrane.

Mr. George Waite, author of an ably written treatise on the gums, seems to think that mucous membrane serves merely as a covering to the gums, and consequently does not constitute the whole of their structure, but as it cannot be separated from them, this opinion is believed to be incorrect. The gums,

properly speaking, may be said to commence near the base of the alveolar border, and after having extended to the necks of the teeth are reflected upon themselves and intimately united to the dental periosteum, leaving a free border around each tooth covering the termination of the enamel upon its crown. When in a healthy condition, their margin on either side of the dental arch, is thin and exhibits a beautifully scolloped or festooned appearance.

The gums of the upper jaw are supplied with blood vessels from the superior coronary artery, and those of the lower from the sub-mental and sub-lingual arteries; and they derive their nerves from the superior dental branches of the fifth pair.

The gums are remarkable for their insensibility and hardness when in the healthy state, but exhibit great tenderness, upon the slightest touch, when diseased.

In the infant state of the gums, the central line of both dental arches present a white, firm, apparently cartilaginous ridge, which gradually becomes thinner as the teeth advance; and in old age, after the teeth drop out, the gums again resume somewhat their former infantile condition, showing, "second-childhood."

The gums may be regarded as that portion of the mucous membrane from which the teeth papillæ and dental sacs originate, and they contribute in an eminent degree to the stability of the teeth after their eruption.

Gums, Characteristics of. Subject as are the gums to the laws which govern the operations of the general economy, their appearance varies with the state of the constitutional health and the condition and arrangement of the teeth. Although the immediate or proximate cause of disease in them may be regarded as local irritation—produced by depositions of tartar upon the teeth, or decayed, dead, loose, or irregularly arranged teeth, or a vitiated state of the fluids of the mouth, resulting from general organic derangement, or any or all of the first mentioned causes, their susceptibility to deleterious impressions, is influenced to a very considerable extent by the state of the general health; and this determines, too, the character of the effects that are produced upon them by local irritants. For example, the deposition of a small quantity of tartar upon the teeth, or a dead or loose tooth, would not, in a healthy person, of a good constitution, give rise to any thing more than a slight redness or tumefaction of the margin of the gums in immediate contact with it; while in a scorbutic subject, it would cause it to assume a dark purple appearance for a considerable distance around, to become flabby, more turgid, and to separate and retire from the necks of the teeth, or to grow down upon their crowns, to ulcerate and bleed from the slightest injury, and to exhale a fetid odor. In proportion as this disposition of body exists, their liability to be thus affected is increased; and, it is only among constitutions of this kind, that that peculiar preternatural prurient growth, by which the whole of the crowns of the teeth sometimes become almost entirely imbedded in their substance, takes place.

But, notwithstanding the dependency of the condition of the gums upon the state of the general health, they are occasionally affected with sponginess and inflammation in subjects of the best temperaments and of uninterrupted good health. The wrong position of a tooth, by causing a continued tension of that part of the gum which invests its alveolus, sooner or later, gives rise to a sort of chronic inflammation in it and the alveolo-dental periosteum, and a gradual wasting of its substance, about the mal-placed organ. Tooth-ache, too, from whatever cause it originates, often produces the same effects, and the formation of salivary calculus upon the teeth, however small the quantity, is likewise prejudicial to their health.

All of these may occur independently of the state of the general health. A bad arrangement of the best constituted teeth, and tooth-ache, may be produced by a multitude of accidental causes, independently of the functional operations of the other parts of the body.

Therefore, while the appearance and physical condition of this peculiar and highly vascular structure, are influenced, in no inconsiderable degree, by the habit of body, they are not diagnostics that always, and with unerring certainty, indicate the pathognomic state of the general system. It can, however, in by the far larger number of cases, where the gums are in an unhealthy condition, be readily ascertained, whether the disease is altogether the result of local irritation, or whether it has been favored by a constitutional tendency. A comparison of the different effects, that are produced upon them by the same causes, in different individuals, will enable a careful observer, in most instances, to decide without much difficulty.

In childhood, or during adolescence, when the formative powers of the body are all in active exercise, and the nervous susceptibilities of every part of the human frame highly acute, the sympathies between the gums and other parts of the organism, and particularly the stomach, are, perhaps, greater than at any other period of life. The general health, too, at this time, is more fluctuating, and with all the changes this undergoes, the gums vary. Moreover, there are operations which are carried on beneath and within their substance, which are almost constantly altering their appearance and physical characteristics; and which, being additionally influenced by various states of health and habits of body, it may readily be conceived, that those which are met with in one case, might be looked for in vain in another.

Having arrived at that age when all the organs of the body are in the full vigor of maturity, and not under the debilitating influences to which they are subject during the earlier periods of life, the gums participate in the happy change, and as a consequence, present less variety in their characteristics. The general irritability of the system is not now so great, the gums are less susceptible to the action of irritating agents, and as a consequence, less frequently affected with disease; but as age advances, and the vital energies begin to diminish, the latent tendencies of the body are re-awakened, and they are again easily excited to morbid action.

Mr. George Waite, in treating on the diseases of the gums, says, "It is a well known and an established fact, that although we may consider ourselves well in health, and in the enjoyment of all our faculties with their blessings, still there exists in every one a diatheses of a peculiar nature; each varied disposition has its own different tendencies; in one we have a disposition to one condition, which may be connected with the venous and artereal system; and, in another constitution, we have that connected with a diseased state of the nervous, glandular and absorbent system."

After alluding to the indications furnished by the tongue, he observes, "In inferring, therefore, *à priori*, that if the nature of the gum be properly known and scrutinized, it will manifest greater changes, indicative of the alterations in the body's condition, than any other part of the frame, I trust that I am borne out by true physiological facts. Amongst other important considerations, I must allude to the correctness with which, if we have a real practical knowledge of the gum, we may judge of the extent of irritation lying dormant in the constitution. I must state, from observations which I have made with considerable care for the last thirteen years, that there is no person in whose constitution disease is lurking who has his gums in a wholesome and pure state; and that previously to the development of dis-

ease, let it show itself how it will, the gum becomes so perceptibly involved in the changes as to afford premonitory forebodings of the illness. In the diseased alterations from scurvy, scrofula, and other diseases, this theory is directly applicable, as also in changes of high importance to the health which occur at middle age."

With regard to the alterations which take place in the breath, he says, the theories upon the subject, "remain involved in considerable mystery," and that "the changes which it is subject to from the alterations in the habit of body never occur without an altered appearance in the condition of the gums; and this is an actual fact, which to elucidate any theory on the point, is of more avail than volumes of the finest composition. It must be admitted that no one can form so correct an estimate of the condition of the breath, as connected with that of the constitution, as the surgeon, who, laying aside all other professional occupations, is compelled to be in close contact with the mouth and teeth."

"It has always been observed that a mercurial breath has its peculiar taint, and that those suffering from scurvy have some peculiarity; but the variations of breath appear to me so diversified, that each may easily be detected by any person subjected as I have been to be in close contact with various mouths. The fetor arising from false teeth, and that from decayed, can each be easily distinguished."

"By a wholesome and pure gum it may be known that let mercury be given even to a great extent, let the most noisome drugs and eatables be continually swallowed, let, lastly, high fever arise, the breath will be affected but with difficulty, and on the discontinuance of medicines will retain all its pristine sweetness, going down through life pure as the constitution of the person whose lot may be the happiness of possessing it.

"On the contrary, there is an irritable appearance of the gums which indicate an impurity of breath; for a short time indeed it may prove wholesome, but should any thing occur to cause the least excitement, it assumes an unpleasant fetor, and this is occasionally quite insupportable.

"From all these circumstances it may be clearly seen that the gums open to us an extended view of many tendencies which the constitution evinces to disease, and also that there is no other part of the frame whose outward appearances will unfold to us the real character of each diathesis of body with equal certainty."

In subjects of the most perfect constitutions, and during adolescence, the gums present the following appearances. They have a violet color, a firm consistence, rough surface; their margins form along the outer surfaces of the dental circle, beautiful and regular festoons, and their mucous membrane, as well as that which covers all the other parts of the mouth, has a fresh, lively, roseate appearance.

The time for the moulting of a primary tooth is announced some weeks before it takes place by an increased redness and slight tumefaction of the edges and apices of the gums surrounding it. The dentition of a tooth, whether of the first or second set, is also preceded by similar phenomena in the gums through which it is forcing its way, and these will be more marked as the condition of the system is unhealthy, or as the habit of body is bad.

If the health of the subject continues good, and the teeth be well arranged, and their crowns do not wear off, and the necessary attention to their cleanliness be strictly observed, the characteristics just enumerated will be preserved through life, except that there will be a slight diminution of color in them, from after the age of puberty until that of the next climacteric period of life, when they will again assume a somewhat

redder appearance. But if the health of the subject becomes impaired, or the teeth be not regularly arranged, or wear off, or be not kept free from all lodgments of extraneous matter, the edges of the gums, and particularly their apices between the teeth, will inflame, swell, and become more than ordinarily sensitive.

The gradual wasting or destruction of the margins of the gums around the necks of the teeth which sometimes takes place in persons of the best constitutions, and is supposed by some writers to be the result of a general atrophy, is ascribable, we have not the least doubt, to some one or other of these causes—favored, perhaps, by a diminution of vitality in the teeth, whereby they are rendered more obnoxious to the more sensitive and vascular parts within which their roots are situated. That these are the causes of the affection, (for it is evidently the result of diseased action in the gums,) is rendered more than probable, by the fact, that it never occurs with those, who, from early childhood, have been in the regular and constant habit of thoroughly cleansing their teeth from four to five times a day.

Mr. Bell, however, while he thinks it may occasionally be an "indication of a sort of premature old age," does not believe it can "always be thus accounted for, as it is sometimes seen in young persons," and "doubtless arises," he says, "from the same cause as those presently to be considered," (alluding to what he afterwards says upon the same subject,) "as originating a similar loss of substance in these parts, when attended with more or less of diseased action." We cannot, for reasons that have been already assigned, concur with him in opinion that it "occasionally takes place without any obvious local or constitutional morbid action."

Although possessed, as those, in the larger number of cases, are, whose gums are such as we have just described, with the best of constitutions; they may, by intemperance, debauchery, or long privation of the necessary comforts of life, or protracted febrile or other severe kinds of disease, have their assimilative and all their other organs so enervated, as to render every part of the body highly susceptible to morbid impressions of every sort, but still, this general functional derangement, rarely pre-disposes the structure, now under consideration, to any of the more malignant forms of disease that are occasionally known to attack it in subjects possessed of less favorable innate constitutions. The margins of the gums may inflame, become turgid, ulcerate, and recede from the necks of the teeth, and the whole of their substance be involved in an unhealthy action, but they will seldom be attacked with scirrhous or fungous tumors, or bad conditioned ulcers, or affected with morbid preternatural prurient growths; and in the treatment of their diseases, we can always form a more favorable prognosis in persons of this description, than those coming into the world with some specific morbid constitutional tendency.

But, the occurrence of severe constitutional disease even in these subjects, is followed by an increased irritability of the gums, so that the slightest cause of local irritation, gives rise to an afflux of blood to and stasis of this fluid in their venous capillaries.

The teeth of persons thus happily constituted, are of the best quality. They are of a medium size, both in length and volume, of a dull or heavy white, compact in their structure, generally well arranged, and seldom affected with caries.

Another constitution is observed, in which the gums, though partaking somewhat of the characteristics of those just described, yet, that differ from them in some particulars. Their color is of a deeper vermilion, their edges rather thicker, their structure less firm, and their surface not so rough, but more humid. Their mucous membrane has

a more lively and animated appearance. They are rather more sensitive and susceptible to the action of local irritants, and their morbid tendencies are more increased by general organic derangement, than they are in gums possessed of the appearances first mentioned.

Their diseases, though generally easily cured or arrested by proper remedial treatment, are, nevertheless, more obstinate, and when favored by disease of the general system, assume a still more aggravated form. Their predisposition, in fact, to disease, is so much increased by severe and long continued general morbid excitement, and especially during youth, and by febrile or inflammatory affections, or obstructions in the parenchymatous organs, that not only their margins, but their whole substance, also, sometimes becomes involved in inflammation, and sponginess, followed by ulceration of their edges, and recession from the necks of the teeth, which, in consequence, loosen, and often drop out. But gums of this kind, like those first described, seldom grow down upon the crowns of the teeth. Neither are they often attacked with scirrhous or fungous tumors, or any form of disease resulting in sanious or other malignant conditioned ulcers. With diseases of this kind, they are not, perhaps, ever affected, except in those cases where every part of the body has become exceedingly depraved; and this is an occurrence that happens much less frequently in habits originally good, than in those in whom a specific tendency to such unfavorable morbid constitutional diatheses was primitively implanted in the organization.

The teeth of those whose gums are possessed of this second description of characteristics, if well arranged, and kept constantly clean—and, if the secretions of the mouth be not vitiated by general disease, will, in most cases, maintain their integrity through life.

It is only among sanguinous persons that this description of gums is met with, and the teeth of subjects of this kind are generally of an excellent quality, and though rather more liable to be attacked by caries than those first noticed, it is seldom that they are affected with it.

In sanguino-serous and strumous dispositions, the gums are paler than in either of the preceding, and though their margins are thin and well festooned, they exude, after the twenty-fifth or thirtieth year, a small quantity of muco-purulent matter, which, on pressure, sometimes is seen to ooze from between them and the necks of the teeth. Their texture is usually firm, and they are not very liable to become turgid, and they often remain in this condition to a late period of life, without undergoing any very perceptible change. Although their connection with the necks of the teeth and alveolar processes appears weak, they rarely separate from them.

In remarking upon individuals having such constitutions, M. Delabarre tells us, that if they "abuse their physical powers," by an injudicious regimen or too much study, they become enervated and "are subject to chronic sanguinous obstructions of the capillaries of the lungs, and to profuse hemorrhages." Dyspepsia and diseases in which the primæ viæ generally, is more or less involved, and chronic hepatitis, are not unfrequent, and are indicated by increased irritability, and, sometimes, a pale yellowish appearance of the gums. In jaundice, the yellow serosity of the blood is very apparent in the capillaries of this structure.

These constitutions are more common to females than males, to the rich than the poor, and to persons of sedentary habits than to those who use invigorating exercises. If at any time during life the health is ameliorated, the gums assume a fresher and redder appearance, and the exudation of muco-purulent matter, from between their edges and the necks of the teeth, ceases.

In mucous dispositions, the gums

have a smooth, shining appearance, and are rather more highly colored than those of the preceding. Their margins, also, are thicker, more flabby, and not so deeply festooned; they are more irritable, and, consequently, more susceptible to morbid impressions.

If, to this disposition, there be combined a scorbutic or scrofulous tendency, the gums during early childhood, in subjects which, from scanty and unwholesome diet, have become greatly debilitated, are liable, besides the ordinary forms of disease that attack them, to another—characterized by their separation from, and exfoliation of the alveolar processes—accompanied by a constant discharge of sanies. This form of disease, however, though peculiar to childhood, and wholly confined to the indigent, is by no means common.

These constitutions are rarely met with, except among persons who live in cellars, and damp and closely confined rooms in large cities, and in low, damp, and sickly districts of country. The mucous membrane in such subjects is exceedingly irritable, and secretes a large quantity of fluid.

In alluding to this species of disposition, M. Delabarre says, "in children, the skin is ordinarily white and tender; nevertheless, it is sometimes brown and wrinkled. They are usually fragile and weak; their blood is pale, their nutrition is imperfectly effected. In females, the vertebral column is disposed to curve about the age of puberty, because," says he, "at this period, the vital energies are principally directed towards the uterus, and in consequence, although so very necessary in the osseous system, there they appear to be weak.

"The number of observations that I have collected during my practice in the city, and in several public institutions, have confirmed me in the opinion, that it is in this constitution, especially, (alluding to the mucous,) that the children of whom I have just spoken, are met with. The *organic life* in them has so little energy, that a local cause on a certain point, operates with greater activity than it would otherwise do, sensibly diminishes the assimilative force of almost all the others. It is also probable, that the development of ganglionic obstructions during dentition, are, many times, owing to the diminution of the sensibitity in the lymphatics.

"We may also remark," says he, "that their skin being very susceptible, the sympathy established between it and the mucous membranes, renders individuals of this kind very liable to contract rheums, and gastric and intestinal affections; they are, likewise, subject to easy night sweats, and vomitings of a sero-mucous fluid," &c.

But, persons even thus unhappily constituted, do, sometimes, by a change of residence and judicious regimen, acquire tolerably good constitutions. Little advantage, however, is derived from these, unless they are had recourse to before the twenty-fifth or thirtieth year of age, though they may prove beneficial at a much later period.

The gums, in subjects in whom there exists a scorbutic tendency, have a reddish-brown color; their margins are imperfectly festooned, and thick; their structure rather disposed to become turgid, and ever ready, on the presence of the slightest cause of local irritation, to take on a morbid action. When thus excited, the blood accumulates in their vessels—where, from its highly carbonized state, it gives to the gums a dark, purple, or brown appearance; they swell, and become spongy and flabby, and bleed from the slightest touch. And to these symptoms, supervene the exhalation of a fetid odor, the destruction of the bond of union between them and the necks of the teeth, suppuration and recession of their margins from the same—gradual wasting of the alveolar cavities, the loosening, and not unfrequently, the loss of several, or the whole of the teeth. These are the

most common results, but, sometimes, they take on other and more aggravated forms of diseased action. Preternatural prurient growths of their substance, fungous and scirrhous tumors, ichorous and other malignant conditioned ulcers are occasionally met with here, in persons in whom there exists a scorbutic taint.

The occurrence of alveolar abscess in dispositions of this kind is often followed by necrosis and exfoliation of portions of the maxillary bone, and the effects which result to the gums from it are always more pernicious than in habits less depraved.

The development of the morbid changes that take place in this structure, even in subjects of this kind, while their character is influenced, if not determined, by a specific constitutional tendency, are, nevertheless, referable to an immediate or proximate cause, and, were this the proper place, we could cite numerous cases tending directly to establish this pathological position; but as this constitutes no part of my present design, we shall content ourself with what we have already said.

In scrofulous dispositions the gums have a pale bluish appearance, and when subjected to local irritation, they become flabby, exhale a nauseating odor, detach themselves from the necks of the teeth, and their apices grow down between the teeth. The blood circulates through them languidly, and debility seems to pervade their whole substance. They are exceedingly irritable, and not unfrequently take on aggravated forms of disease, and, as it often happens, to this, as well as to the preceding habit, there are combined tendencies which favor the production of ill conditioned tumors and ulcers.

The indications furnished by the gums of a mercurial diathesis in the system, are morbid sensibility, increased vascular and glandular action, foulness, bleeding from the most trifling injuries, pale, bluish appearance of their substance, turgidity of the points or apices between the teeth, and sloughing. The effects, however, resulting to these parts from the use of this medicine differ in different individuals according to the general constitutional susceptibility, the quantity taken into the system, and the length of time its use has been continued. In persons of very irritable habits, a single dose will sometimes produce ptyalism, and so increase the susceptibility of the gums, that the secretions of the mouth, in their altered state, will at once rouse up a morbid action in them.

The influence of a mercurial diathesis upon these parts, is not unfrequently so great as to result in the loss of the whole of the teeth; but with these effects both the dental and medical practitioner are too familiar to require any further description.

Finally, we would observe, that the indications of the several characteristics to which we have now briefly alluded, may not be correct in every particular, and there are others which we have not mentioned; yet, that they will generally be found so, we are persuaded every one whose attention has been for any considerable length of time particularly directed to the subject, will agree. As a general rule, persons of a full habit, though possessed of mixed temperaments, and in the enjoyment of what is usually called good health, have gums that are well colored, with rather thick margins, and that are very susceptible to local irritation, and with this description of individuals, inflammation, turgidity, and suppuration of the gums are very common. To prevent this, constant attention to the cleanliness of the teeth is indispensable.

Professor Schill says, the "gum is pale in chlorosis and anæmia; of a purple red color before an active hemorrhoidal discharge, and in cases of dysmenorrhœa; of a dark red color, spongy, and bleeding readily in scurvy and diabetes mellitus, and after the use of

mercury. Spongy growths indicate caries of the subjacent bone."*

Regular periodical bleedings of the gums in dysmenorrhœa, and particularly in scorbutic and mucous subjects, are not unfrequent, nor in any case where they are in a turgid condition.

Spongy growth of the gums in scorbutic and scrofulous persons, often result from irritation produced by decayed teeth, and are not, therefore, always to be regarded as an indication of caries of the subjacent bone.

Mr. George Waite says, "a change of residence to a damp climate will often rouse up in the gums a great degree of vascularity. In the damp places of England and Ireland, the appearances which the gums present are of a turgid and vascular nature. In the damp countries of France, these conditions of the gums run a much greater length from the circumstance of the difference in the constitutions of the two nations. In the damps of Germany and Switzerland, persons also lose their teeth early in life, the climate engenders malaria and low fevers, enfeebles the powers of digestion, and brings on rheumatic affections, with languor and general constitutional debility."

Of the correctness of Mr. Waite's observations there can be no question, and they go to establish what has been said in regard to the predisposing cause of disease in the gums—namely, that the enervation of the vital powers of the body, from whatever cause produced, increases their susceptibility to morbid impressions.

Gums, Diseases of. The gums and alveolar processes, from apparently the same cause, frequently assume various morbid conditions. An unhealthy action in one, is almost certain to be followed by disease in the other. The most common form of disease, to which these parts are subject, is usually though very improperly, denominated scurvy, from its supposed resemblance to *scorbutus*, "a genus of disease in the class *cachexiæ*, and order *impetiginis*, of Cullen." To this disease, however, it bears no resemblance. Instead, therefore of being designated by this term, it might with more propriety be called *inflammation and sponginess of the gums, accompanied by recession of their margins, and destruction of the alveolar processes*, which seems to express more clearly the condition of the parts, and the nature of the disease. The other affections to which the gums and alveoli are liable, will be noticed under their appropriate names.

The diseases of the gums and alveolar processes, are divided by Mr. Bell, into two classes: "those which are the result of local irritation, and those which arise from constitutional causes."

But were it not for local irritation, the constitutional tendencies to disease, in these parts, would rarely manifest themselves; and, on the other hand, were it not for constitutional tendencies, the effects of local irritation would seldom be of a serious character. "Thus," says Mr. B., "the same cause of irritation, which, in a healthy person, would occasion only simple abscess, might, in a different constitution, result in ulceration of a decidedly cancerous type; and in others, in the production of fungous tumors, or the formation of scrofulous abscesses."

Each constitution has its own peculiar tendency, or, in other words, is more favorable to the development of some forms of disease than others, and this tendency is always increased or diminished, according as the functional operations of the body, generally, are healthily or unhealthily performed.—Thus, in an individual of a mucous habit, derangement of the digestive organs increases the tendency superinduced by it to certain forms of diseased action in particular organs, and in none more than the gums. A local irritant, which would not before have produced any

* *Outlines of Pathological Semeiology*, page 168 of the Select Medical Library edition.

thing more than slight inflammation of the margins and apices of the gums, would now give rise to turgidity and sponginess of their whole structure. The same, too, may be said with regard to a person of a scrofulous or scorbutic habit.

The susceptibility of the gums to the action of morbid irritants, is always increased by enfeeblement of the vital powers of the body. Hence, persons laboring under excessive grief, melancholy, or any other affection of the mind, or constitutional disease, tending to enervate the physical energies of the system, are exceedingly subject to inflammation, sponginess and ulceration of their gums. But, notwithstanding the increase of susceptibility which the gums derive from certain constitutional causes and states of the general health, these influences, in the majority of cases, may all be counteracted by a strict observance of the rules of dental hygiene; or, in other words, by regular attention to the cleanliness of the teeth.

A local disease, situated in a remote part, often has the effect of diminishing the tendency of the gums to disease, but when, from its violence or long continuance, the general health becomes implicated, the susceptibility of these parts is augmented.

Although deriving the predisposition which they have to disease, from a specific, morbid, constitutional tendency, they, nevertheless, when diseased, contribute in no small degree to derange the whole organism. An unhealthy action here vitiates the fluids of the mouth, and renders them unfit for the purposes for which they are designed; hence, when these parts are restored to health, whether from the loss of the teeth, or the treatment to which they may have been subjected, the condition of the general health is always immediately improved.

Thus, while the susceptibility of the gums to morbid impressions is influenced by the state of the general health, the latter is equally influenced by the condition of the former. And, not only is a healthy condition of the gums essential to the general health, but it is also essential to the health of the teeth and alveolar processes. From the intimate relationship that subsists between the former and latter, disease cannot exist in one, without, in some degree at least, affecting the other. Caries of the teeth, for example, often gives rise to inflammation of the gums and alveolo-dental periosteum; and, on the other hand, inflammation of these parts, vitiates the fluids of the mouth, and often causes them to exert a corrosive action upon the teeth, and gradually to destroy the alveolar processes.

Gums, Effects of Lead on the. It would seem from the observations of Dr. Burton, that the introduction of lead into the system, whether by persons who have been exposed to the action of it in the usual course of their avocations, or who had taken acetate of lead medicinally, imparts to the edges of the gums a *leaden-blue*. On the other hand, Dr. Chowne states, that he has met with numerous instances in which the blue line on the gums was observable without any evidence that lead had been taken into the system.

Gums, Preternatural Prurient Growth of. This disease is characterized by swelling and inflammation of the gums, a morbid growth of their substance; so that, in some instances, the crowns of the teeth are entirely covered, and mastication rendered exceedingly difficult and painful. The gums, when affected with it, are of a dark purple color, with thick, smooth, rounded edges, and discharge a very fetid matter. They hang loosely around the teeth, and are attended with a peculiar itching sensation, which, at times, is very annoying; they are also so very sensitive, that even the pressure of the lips produces pain. Their vessels are turgid, and often bleed profusely from the slightest touch.

The breath of a person thus affected,

is exceedingly offensive, the saliva is vitiated, and so viscid, that it is even difficult to spit. The secretions of the mouth, generally, are so acrid, that gold, even twenty carats fine, is readily discolored by them.

This peculiar affection, though caused by local irritants, appears, nevertheless, to be dependent on a cachectic tendency of the general system. How far it may be influenced by local causes, the author is unable to determine. It often attacks the gums of individuals whose teeth are perfectly sound, and regular in their arrangement; but the author has never seen a case where tartar was not present, though, in some instances, the quantity was so small, that he doubted whether it could have had any agency in the production of the disease. A diseased action, however, may have been first excited in the gums, by its presence, which, afterwards, having been favored by a constitutional predisposition, may have continued until it induced this peculiar morbid condition.

The first thing to be attended to in the treatment of this disease, is the removal of all dead and such other teeth as may, in any way, irritate the gums. The morbid growth of the gums should next be removed, by making a horizontal incision entirely through to the crowns of the teeth. This should be carried as far as the morbid growth itself extends, even if that includes the whole dental circle. After this operation has been performed, the gums should be freely scarified, by passing a lancet between all the teeth entirely down to the alveoli, in order that the vessels may discharge their accumulated blood. This should be repeated several times, and at intervals of four or five days. Meanwhile the mouth should be washed several times a day, with some astringent and detergent lotion; and occasionally with a weak solution of *nitratum argentum*. The tartar also, should be removed, as soon as the gums have sufficiently collapsed.

During the employment of these local means, the constitutional health should not be neglected; but such remedies prescribed, as may be best calculated to counteract and break down every tendency to the disease. Particular attention must be paid to regimen, and excesses and intemperance of every kind, prohibited. Suitable exercise, and vegetable diet, should, at the same time, be prescribed. If any animal food be used, it should be fresh, and consist principally of beef, mutton, and fowls. Vegetables, fruits, and acid beverages, such as spruce beer, lime juice, and infusions of malt and vinegar, should be recommended, for the purpose of restoring to the fluids their healthy qualities.

Another and very important indication, is perfect cleanliness of the teeth. If particles of food or other foreign matter be permitted to remain along the edges of the gums, or between the teeth, the cure, to say the least, will be greatly retarded, if not prevented. As before directed, the teeth should be thoroughly cleaned, five times a day, with an elastic brush and waxed floss silk. The importance of this should be most strenuously urged upon the patient.

The author has met with several cases of this description of diseased gums, which, when treated as here recommended, were uniformly restored to health; so that he does not hesitate to say, that most of the failures, which occur in the treatment of this, as well as every other sort of spongy and inflamed gums, is attributable to inefficient treatment.

Gums, Turgescence and Ulceration of. This affection is characterized by inflammation and sponginess of the gums, frequently, recession of their margins, and a gradual wasting or destruction of the alveolar processes. They also assume a deep florid or dark purple appearance; their edges are thick, round, and on being pressed, discharge matter, varying in appearance from healthy pus to that of the most fetid

kind. They are sometimes slightly painful, usually very sensitive, and bleed from the most trifling injury.

The disease generally makes its appearance round the lower front teeth and the upper molares, opposite the mouths of the salivary ducts, and in the immediate vicinity of aching, decayed, dead, loose, or irregularly arranged teeth, or in the neighborhood of roots of teeth, and from thence it extends to the other teeth. The rapidity of its progress is dependent on the age, health, and constitutional temperament or habit of body of the individual, and the nature of the local irritants which have given rise to it. In some cases, it exists for years, without occasioning any perceptible recession of the gums, or destruction of the alveolar processes—the only unpleasant consequences attending it, being a vitiated state of the secretions of the mouth, and an offensive breath. In other instances, it progresses so rapidly, that, in a few weeks or months, both the gums and alveoli become involved in complicated disease.

When inflammation in the gums is favored by a constitutional tendency, it soon extends to the alveolar and dental periosteum, and often causes a deposition of bony matter at the bottom of the alveoli. The edges of the gums and alveolar processes are, at the same time, gradually wasted, so that, sooner or later, the teeth, by the destruction of the sockets are loosened and caused to drop out.

Nor do the pernicious effects of this disease always stop here. Constitutional symptoms often supervene, more vital organs become implicated, and the health of the general system is sometimes very seriously impaired. Hence, the constitutional improvement that is often observed after the loss of the teeth of those persons, whose mouths have for a long time been affected with this disease. No condition of the mouth has a greater tendency to deteriorate its secretions, and impair the function of mastication, than the one now under consideration.

In forming an opinion of its character, and the consequences that are likely to result from it, the practitioner should be governed, not only by the health and age of the patient, and the local causes concerned in its production, but he should also endeavor to ascertain, whether it is connected with a constitutional tendency, or is purely a local disease. To determine these points, will often require much pathological knowledge, because its causes are frequently involved in considerable obscurity. Hence, some have been led to believe, that the wasting of the gums and alveolar processes, may sometimes take place without being connected with any special, local or constitutional causes; that it is identical with that process by which the teeth of aged persons are removed, and that when it occurs in persons not past the meridian of life, it is symptomatic of a sort of premature old age.

Mr. Bell, on this subject, remarks: "In forming a judgment upon cases of this description, however, and even on those in which the loss of substance is associated with more or less of diseased action, it is necessary to recollect, that the teeth are generally removed in old age by this identical mode, namely, the destruction of their support, by the absorption of the gums and alveolar processes; and as this step towards general decay commences at very different periods in different constitutions, it may, doubtless, in many cases, even in persons not past the middle period of life, be considered as an indication of a sort of premature old age, or an anticipation, at least, of senile decay, as far as regards these parts of the body."

Though the loss of the teeth, by the wasting of the gums and alveolar processes, is often an attendant on advanced age, the author does not believe it to be a necessary consequence of senility, for we occasionally see persons of seventy,

and even eighty years of age, whose teeth are as firmly fixed in their sockets, and their gums as little impaired, as they were at twenty. He does not recollect ever to have seen a case of this sort, in which there was not evidently some diseased action in the parts. But it is of little importance whether it be the result of old age, a constitutional tendency, functional derangement of some other part, or of local irritation, since the effects are always the same.

But the effects of the disease under consideration, do not always manifest themselves in the manner here described. The diseased action often extends to the alveolo-dental periosteal tissues. They become the seat of subacute inflammation, are thickened and pour out an acrimonious fluid which gradually breaks down and destroys the walls of the alveoli, so that the extremities of the roots of the teeth of the upper jaw, so far protrude through them and the gums as to be a source of great annoyance to the lips and inner walls of the cheeks. The teeth of first dentition are more liable to be thus affected than those of second, and in this case they should always be immediately extracted. It is not necessary that there should be aching, decayed, dead, irregularly arranged teeth, or tartar, to irritate the gums and alveolar membrane. The arrangement of the teeth is often such, even when regular, as to produce inflammation in certain parts of the mouth, which sooner or later, according to the constitutional tendency, results in disease. Hence it is, that when all the teeth are sound, we occasionally see a gradual wasting of such parts of the gums as are most prominent, especially those which surround the cuspidati and the palatine fangs of the upper molar teeth.

The secretions of the mouth, especially the mucous, are often rendered, by certain conditions of the general system, so acrid, as to become a source of great irritation to the gums. And it may be that all the teeth, as their vital powers are weakened by age, are, to a certain extent, rendered obnoxious to the more highly organized and sensitive parts within which their roots are contained.

Thus it will be seen, that local agents may exert a considerable influence in the production of this disease, without being easily detected. It should also be recollected, that a person of sixty, seventy, or even eighty years of age, is exposed to the same, and perhaps, more powerful local causes of irritation than one of twenty, and the reason the effects are not always developed in earlier life, is, that there are greater tendencies to this disease in the constitutions of some than in those of others.

Dr. Koecker, a practitioner who has had the most ample opportunities of observing this affection in all its various forms, says, he has never seen a case of it in which tartar was not present.

This disease attacks persons of all ages, ranks and conditions, and in every country, climate and nation. "I have observed," says Dr. Koecker, "the inhabitants of the most opposite countries, the Russians, the French, the Italians, the Spaniards, the Portuguese, the English, the Africans, the East and West Indians, and those of the United States, to be all more or less liable to it."

It is, however, more frequently met with in the lower than in the higher classes of society. Persons who pay no attention to the cleanliness and health of their teeth, are particularly subject to it. With sailors, and those who live principally on salt provisions, it is very prevalent. "Persons of robust constitutions," says the author just quoted, "are much more liable to this affection of the gums, than those of delicate habits; and it shows itself in its worst forms, oftener after the age of thirty than at any earlier period."

Every thing that tends to produce inflammation in the gums and alveolar processes, may be regarded as exciting causes of the disease. To those that

have already been enumerated, may be added, accumulations of extraneous matter on the teeth, and along the edges of the gums, exostoses of the roots of the teeth, artificial teeth badly inserted, or of improper materials, and dental operations injudiciously performed. The use of tooth-brushes wrongly constructed, and improper tooth powders, especially charcoal, may be reckoned among its exciting causes. Acids of all sorts, we are told by Dr. Fitch, produce "irritability of the gums about the necks of the teeth."

Every condition of the general system that tends to increase the susceptibility of the gums to the action of local irritants, favors the production of the disease; and every thing that tends to induce such conditions, may be regarded as its predisposing causes; such as bilious and inflammatory fevers, the excessive use of mercurial medicines, venereal poison, and intemperance and debauchery. Any deterioration of the fluids of the body is peculiarly conducive to it. Persons of cachectic dispositions are far more subject to it, and generally in its worst forms, than those possessed of good constitutional health.

Strumous individuals sometimes have an affection of the gums, which differs from the one just described in many respects. The gums, instead of being purple and swollen, are paler and harder than ordinary, and, on being pressed, discharge a muco-purulent matter, of a dingy white color. They often remain in this condition for years, without appearing to undergo any physical alteration, or to affect the alveolar processes.

This variety of disease of the gums, is principally confined to persons that have very white teeth, is much less likely to attack males than females; and has never, so far as we have been able to ascertain, been mentioned by any dental writer. Mr. Fox speaks of ulceration of the gums of scrofulous children; but that is of frequent occurrence, and is characterized by the usual signs of inflammation. This rarely occurs before the age of eighteen or twenty; and, though unquestionably the result of subacute inflammation, yet the gums exhibit no inflammatory symptoms; but, on the contrary, are paler, less sensitive, and possessed of less warmth than usual. It is never attended with tumefaction nor by absorption, except in its advanced stages; whereas, the affection of which Mr. Fox speaks is always accompanied by both.

Its effects are the most simple and innocent of any form of disease to which the gums are liable; but the cure of the disease is often very difficult and sometimes exceedingly tedious.

Inflammation and sponginess of the gums are generally regarded by dentists as being capable of cure, and so far as regards the restoration of the gums to health, they most assuredly are; but when the gums have lost their connection with the teeth, a re-union can never be established.

The gums, after having been once affected in this manner, are more liable to be attacked again, because the necks of the teeth, having become exposed, present a surface more favorable to the collection of tartar, and more irritating to the edges of the gums than the crowns of these organs.

The treatment of spongy and inflamed gums, in order to be successful, must be thorough. No temporizing, half-way measures will answer. If an energetic and properly conducted plan of treatment be pursued, a favorable result may always be anticipated; or, at least, the progress of the disease may be arrested.

Local irritation being the cause of the affection, its curative indications are obvious. All dead and loose teeth should be extracted, salivary calculus and every other sort of offensive, irritating matter, should be removed; "all such teeth," says Dr. Koecker, "as from their irregular situation or direction, excite a me-

chanical irritation, provided this irregularity cannot be remedied by filing, or by cutting away the irritating parts, should also be removed."

Irregularity of the teeth is so productive of irritaton to the gums and alveolar membrane, that these parts are rarely in a perfectly healthy condition, whenever it is very considerable; but instead of attempting to remedy it by filing such as crowd against, or impinge upon each other, the cause should at once be removed, by extracting one or two teeth. The irritation occasioned by the pressure of the incisores, may, in young persons, generally be removed by the extraction of a bicuspis on each side of the mouth; but the propriety of this operation can never be ascertained, except by a careful examination of each individual case. "A molar tooth, that has no antagonist, should not," says Dr. Koecker, "be permitted to remain, particularly if it be situated in the upper jaw." This opinion is certainly in accordance with the indications of nature; for when a tooth has been deprived of its antagonist, it generally soon becomes, more or less, protruded from its socket, by a deposition of bony matter at the bottom of the alveolus. The gum, too, around it, assumes a more florid appearance, its margin becomes thickened, and the tooth itself is rendered more or less sensitive.

"In this manner," says the author just quoted, "the loss of one molar tooth, produces the destruction of its remaining antagonist. This is effected, however, after a struggle of nature, of of very long duration, which will always involve, in some degree, all the other teeth in a like diseased condition; it is necessary, therefore, to prevent this morbid condition, particularly pernicious in this disease, by the extraction of the tooth, or any molar so situated."

Although a molar tooth, after having lost its antagonist, is generally productive of bad consequences, it may, sometimes, be allowed to remain with impunity. Its removal is necessary only when it acts as an irritant to the gums.

To the cure of this disease, it is essential that a decided impression should be made upon it at once; consequently, no time should be lost in the removal of its causes. If there be any teeth which act as irritants, and cannot be restored to health, they should be immediately removed. The advantage derived from this operation, says a distinguished practitioner, (Dr. Koecker,) would be either partly or wholly lost, were it performed at different periods. This observation has been verified by the author more than once. When he has been prevented by the timidity of his patient from extracting all the offending teeth, at the first sitting, he has always found the cure much retarded, and in some instances, almost entirely defeated.

This operation having been completed, Dr. Koecker thinks that it is better to wait ten or fifteen days, before the tartar is removed. The operations of extraction and cleansing should, for reasons before stated, be performed with as little delay as possible; but it is of no great consequence which is performed first; though, on some accounts, it is desirable, that so much of the tartar as can, should be removed at one and the first sitting. Several sittings, however, as has been before remarked, are often requisite for its complete removal.

The bleeding from the gums and sockets, occasioned by these several operations, should be promoted by frequently washing the mouth with warm water; and when the gums are much swollen, they should be, from time to time, freely scarified with a sharp lancet. This operation is highly recommended by Messrs. Hunter, Fox, and Bell, and indeed its good effects are so apparent, that it should never be neglected. The application of leeches to the gums, is also attended with the most decided advantage. For the last four or five years, we have been accustomed, in obstinate

cases, to recommend their employment, and always with decided benefit.

After the gums have began to recover, the cure will be much accelerated, by washing the mouth several times a day with some tonic and astringent lotion.

Mr. Fox says, that great benefit is derived from the use of sea water, "and, therefore," says he, "I always recommend it whenever it can be procured;" adding, that if the gums be tender, it should be used warm. The author is unable to speak of the merits of this remedy from experience; but he would suppose, that no decided advantage could result from it. He has, in cases where there was much soreness and ulceration of the gums, prescribed the following: ℞.—Sub. boras. soda, ℈ ij; decoct. sage, ʒ vj; honey, ʒ i. Misce.

As a wash for the mouth, Dr. Fitch recommends a decoction of the inner bark of green white oak, which the author has, in several cases, prescribed, and always found it to be beneficial.

If, notwithstanding the use of the means here recommended, matter still be discharged from around the necks of the teeth, and the gums continue spongy, and manifest no disposition to heal, their edges should be touched with a solution of the *nitratum argentum*, which will seldom fail to impart to them a healthy action. It may be used in the proportion of one or one and a half grains to one ounce of water. The most convenient mode of applying it, is with a camel's-hair pencil. Its use is recommended by Mr. Fox, and will often succeed, when all other remedies fail. In those cases where the matter discharged from the edges of the gums has a nauseating and disagreeable odor, "a weak solution," says he, "is an excellent remedy for rendering the mouth sweet and comfortable;" but in using it in this way, precaution is necessary to prevent its getting in the fauces, as, in that case, it will cause a disagreeable nausea.

While the means here directed for the cure of this disease are being employed, a recurrence of its exciting causes must be studiously guarded against. Tartar and foreign matter of every kind, should be prevented from accumulating on the teeth, by a free and frequent use of a suitable brush and waxed floss silk, which, until a healthy action be imparted to the gums, should be used at least five times a day; as, for example, immediately after rising in the morning, after each meal, and before retiring at night. The application of the brush may at first occasion some pain; but its use should, nevertheless, be persisted in; for, without it, all the other remedies will be of but little avail. The friction produced by it, besides keeping the teeth clean, is of great service to the gums, as it imparts to them a healthy action.

Treatment, different from that here described, is necessary for the form of disease, which we noticed, as being characterized by a preternatural paleness of the gums, and by a discharge of muco-purulent matter, from between their edges and the necks of the teeth. In the first case of this disease treated by the author, he directed astringent and detergent lotions to be used; but these did not produce the desired effect. Having been led from his observations in this case, to believe that the disease was connected with the constitutional health, and probably the result of a debilitated state of the general system, he recommended in the next case in which he was consulted, the use of tonics and free exercise in the open air. This treatment did not seem to be productive of any benefit to the gums. They still appeared debilitated, and, on being pressed, discharged matter from beneath their edges. He advised a continuance of the tonics and exercise, and with a view of exciting inflammation, touched the edges of the gums with *nitratum argentum*. This had the desired effect, and, as he had anticipated, a new disease was substituted for the old one; for the cure of which he directed the mouth to be washed, five or six times a day, with

sage tea, slightly impregnated with alum, and sweetened with honey; and every night and morning, with warm salt water; which, as soon as the tenderness of the gums subsided, was used cold.

This treatment was perfectly successful. In about three weeks the gums assumed a healthy action, acquired their natural color, and the discharge of muco-purulent matter entirely ceased. He has since had occasion to treat several other cases of the same disease; in all of which he adopted a similar practice, and with like success.

GUNNELL, J. S. Author of a paper entitled, a Remedy for Protrusion of the Lower Jaw.—Also, of a description of a Cheek and Lip Protector, or Retractor, and of an article, entitled a Remedy for the Painful Affection produced by the Cutting of the Lower Dens Sapientiæ, or Wisdom Tooth, published in volumes third and fourth of the American Journal of Dental Science.

GUSTATO'RY. *Gustativus;* from *gustus,* taste. Pertaining to taste.

Gustatory Nerves. The nerves of taste. See Lingual Nerve.

GUSTUS. Taste.

GUT. Intestine.

GUTTA. A drop. Also, apoplexy.

Gutta Gamba. Cambogia.

Gutta Nigra. The black-drop, a preparation of opium.

Gutta Opaca. Cataract.

Gutta Percha. The following observations on the properties and use of this substance, are taken from an article by G. F. J. Colburn, surgeon dentist, of Newark, N. J., published in the American Journal Dental Science, volume 8, No. 3. He says, "The new substance, similar to caoutchouc, recently introduced to the notice of the public, called gutta percha, is the coagulated sap and milky juice, of a whitish grey color, which exudes from a tree belonging to the natural order, sapoteæ, a native of the island of Singapore, and the dense forests of the Malayan peninsula. It has many curious properties. Below the temperature of fifty degrees, it is of the consistency and hardness of wood. Unlike caoutchouc, it has little elasticity, possessing much tenacity when drawn out, and remains without contracting.

This material may be applied to many useful purposes. For the surgeon it makes excellent bougies, catheters, enema pipes, splints, &c.

The dentist may find in it a substitute for wax for taking impressions of the mouth, it will not adhere to the teeth, and becomes so hard in a few moments as to be readily removed without danger of being disturbed by coming in contact with the cheeks and angles of the mouth."

Mr. C. says he has employed it for this purpose, and directs that it be first "thoroughly soaked in boiling water, then kneaded and moulded in the same way as wax to fit the case; both should then be immersed, the water shaken off, and immediately placed in the mouth, and firmly pressed to its place." He further states, that he has "instituted a number of experiments with this substance in order to test its practicability for filling teeth." W. P. Blake, dentist of New York, is of the opinion that it may prove serviceable for temporary fillings for teeth.

Gutta Rosea. A cutaneous eruption of the face, of red, shining, suppurative tubercles, having an irregular granular appearance, frequently caused by excessive drinking.

Gutta Serena. Amaurosis.

GUT'TUR. The throat.

GUT'TURAL. Pertaining to the throat.

Guttural Artery. The superior thyroideal artery.

GUTTURNIA. The arytenoid cartilages.

GYMNA'SIUM. A place for bodily exercise.

GYMNAS'TIC. *Gymnasticus;* from γυμνος, naked, because the athletæ were stripped. That part of hygiene,

which consists in bodily exercises, such as wrestling, running, using dumbbells, &c.

GYMNOSIS. Denudation.

GYMNOSPER'MIA. From γυμνος, naked, and σπερμα, a seed. An order of the Linnæan class of plants, comprehending such as have naked, or apparently naked, seeds.

GYNÆCOMA'NIA. From γυνη, woman, and μανια, madness. Insanity from love for women.

GYNÆCOMYS'TAX. From γυνη, woman, and μυσταξ, beard. The hair on the female pudendum.

GYNANTHRO'PUS. *Gynandrus.* An hermaphrodite, partaking more of the male than of the female sex.

GYNATRE'SIA. From γυνη, a woman, and ατρητος, imperforate. Imperforation of the female external parts of generation.

GYNE. A woman.

GYNIDA. An hermaphrodite.

GYP'SUM. Sulphate of lime. Plaster of paris. A native sulphuret of lime, consisting of 28 parts of lime, 40 of sulphuric acid, and 18 of water. When exposed to a heat of 400° Fahrenheit, the water of the gypsum escapes. After being properly calcined and pulverised, if mixed with water to the consistence of thin batter, it hardens in a few minutes, by a species of crystallization, and acquires great solidity. During the first part of the process of consolidation, it expands, by the absorption of the water, filling the small depressions in any mould in which it may be poured.

In *Mechanical Dentistry*, plaster of paris, or gypsum, is used for obtaining casts or models of the jaws, and as a substitute for wax, in taking impressions of the mouth. It is also used by artists and by anatomists for taking casts.

There is a great difference in the quality of plaster of paris. For taking impressions and models of the mouth, it should be of the best description, well calcined, finely pulverized and passed through a fine sieve previously to being used.

GYRATE. Circinate.

GYRATION. Oscillation.

GY'RI CEREBRI. The cerebral convolutions.

GYRUS. Anfractuosity.

H.

HABIT. From *habere*, to have or to hold. A disposition of body or mind; a tendency, resulting from frequent repetition, to perform certain actions. A predisposition to, or protection against, certain diseases.

Habit of Body. Constitution and temperament.

HABITA'TION. *Habitatio;* from *habitare*, to dwell. The country or locality in which an animal lives, or a plant grows spontaneously.

HABITUS. Habit of body.

HÆMA. *Hæmatos;* from αιμα, αιματος, blood. Blood. A term used as a prefix in medicine.

HÆMACHROINE. Hæmatosin.

HÆMACY'ANIN. From αιμα, blood, and κυανος, blue. A blue coloring matter, supposed to have been detected by Sanson, in the blood.

HÆMADON'OSOS. From αιμα, blood, and νοσος, a disease. Diseases of the blood-vessels.

HÆMADOSTO'SIS. From αιμα, blood, and οστωσις, a bony tumor. Ossification of the blood-vessels.

HÆMADYNAMOM'ETER. From

αιμα, blood, δυναμις, power, and μετρον, a measure. An instrument to determine the force with which the blood is driven through the principal vessels by the action of the heart.

HÆMAGO'GUES. *Hæmagoga;*—from αιμα, blood, and αγω, I drive off. Medicines which promote the hemorrhoidal and menstrual discharges.

HÆMAPHÆ'IN. From αιμα, blood, and φαιος, of a dusky color. The brown coloring matter of the blood.

HÆMAPOR'IA. From αιμα, blood, and απορος, poor. Bad blood; paucity of blood.

HÆMASTAT'ICA. From αιμα, blood, and στατικη, statics. The doctrine of the laws which regulate the action of the blood-vessels, or the circulation of the blood.

HÆMATEME'SIS. From αιμα, blood, and εμεω, I vomit. A vomiting of blood. A discharge of blood from the stomach.

HÆMATHORAX. See Hæmatothorax.

HÆMAT'ICA. From αιμα, blood. Diseases of the sauguinous function.

HÆ'MATIN. See Hæmatosin.

HÆMATI'TES. From αιμα, blood. Blood-stone. A term applied to an oxyd of iron from its red color, or from its supposed power of arresting hemorrhage.

HÆMATOCE'LE. From αιμα, blood, and κηλη, a swelling. A swelling or tumor caused by an extravasation of blood either in the cellular tissue of the scrotum, the cavity of the tunica vaginalis, or testicle itself.

HÆMATOCHE'ZIA. From αιμα, blood, and χεζω, I go to stool. Bloody stools.

HÆMATO'CHYSIS. Hemorrhage.

HÆMATO'DES. From αιμα, blood, and ειδος, a likeness. Having the nature or appearance of blood. See Fungous Hæmatodes.

HÆMATOL'OGY. *Hæmatologia;* from αιμα, blood, and λογος, a discourse. A treatise on the blood.

HÆMATO'MA. A tumor resembling blood.

HÆMATOMPHALOCE'LE. *Hæmatomphalus;* from αιμα, blood, αμφαλος, the navel, and κηλη, a tumor. An umbilical tumor, caused by an extravasation of blood.

HÆMATON'CUS. From αιμα, blood, and ογκος, a tumor. A name given by Alberti to *nævi-materni*, or varicose tumors.

HÆMATOPHOB'IA. From αιμα, blood, and φοβος, dread. That dread of the sight of blood, which produces syncope.

HÆMATOPLA'NIA. Vicarious menstruation.

HÆMATO'SIN. *Hæmatin.* The red coloring matter of the blood.

HÆMATO'SIS. From αιμα, blood. The arterialization of the blood, or the transformation of the venous blood and chyle into arterial blood. Also, a hæmorrhage of blood.

HÆMATOTHO'RAX. From αιμα, blood, and θωραξ, the chest. Effusion of blood in the plura.

HÆMATOXYLON CAMPECHIA'NUM. The logwood tree. Acacia Zeylonica.

HÆMATURE'SIS. Hæmaturia.

HÆMATU'RIA. From αιμα, blood, ουρεω, I make urine. The discharge of bloody urine.

HÆMI'TIS. From αιμα, blood, and *itis*, denoting inflammation. Literally, inflammation of the blood. That alteration of the blood which occurs in inflammation.

HÆMO'DIA. From αιμωδεω, I stupify. Aching of the teeth; the teeth set on edge from the use of acerb or acid aliments.

HÆMOPHTHAL'MIA. From αιμα, blood, οφθαλμος, eye. Effusion of blood in the eye.

HÆMOPTOE. See Hæmoptysis.

HÆMOPTY'SIS. From αιμα, blood, πτυω, I spit. Spitting of blood. An expectoration of frothy blood, preceded by cough, heat and pain in the chest.

Hæmoptysis Interna. Hæmatothorax.

Hæmoptysis Phthisis. Phthisis pulmonalis.

HÆM'ORRHAGE. *Hæmorrhagia;* from αιμα, blood, and ρηγνυμι, I break forth. The escape of blood from any of the vessels destined to contain it, whether from rupture or otherwise. Hæmorrhages are divided into *active* and *passive;* the former resulting from increased action; the latter from debility. They are also distinguished into *external* and *internal; general* and *local; spontaneous* and *traumatic.*

Hæmorrhage After the Extraction of Teeth. The hemorrhage occasioned by the extraction of a tooth is seldom considerable, except in those cases where there is a hemorrhagic diathesis of body, and then, it is sometimes excessive and even alarming. Several cases have been recorded in which it baffled every attempt to arrest its progress, and terminated fatally. Whenever a tendency to excessive hemorrhage from the rupture of one or more small vessels, manifests itself in one member of a family, composed of several individuals, it will generally be found to exist in several.

Among the means which have been employed for arresting hemorrhage from the socket of a recently extracted tooth, are astringents, styptics, caustics, the actual cautery and compresses. But the actual cautery and compresses, after all, are the only means that can be relied upon, with any degree of certainty. When the hemorrhage is from the dental artery, it may always be arrested by plugging the socket tightly with raw cotton, lint, sponge, or a piece of cork, previously saturated in tinct. nut galls, or the replacement of the tooth. Dr. B. B. Brown has invented a very ingenious compress which is probably better adapted to the purpose than any that has been employed; it consists of waxed linen or cotton cloth made into a cone, fitted to the size of the socket of the tooth. When the bleeding is from a number of vessels, and especially from the gums around the alveolus, it is necessary to apply the actual cautery.

Hæmorrhage from the Lungs.—Hæmoptysis.

Hæmorrhage from the Nose.—Epistaxis.

Hæmorrhage from the Stomach. Hæmatemesis.

Hæmorrhage from the Urinary Organs. Hæmaturia.

Hæmorrhage from the Uterus. Menorrhagia.

Hæmorrhage from the Gums, Spontaneous. In depraved or cachectic habits of body, it sometimes happens, that passive hemorrhage occurs spontaneously from the gums, and especially from those portions which occupy the inter-dental spaces, baffling every effort that can be made to arrest it. It may, however, in the majority of cases, be stopped by the application of the actual cautery or compresses. The author succeeded in one case with the latter. The best method of applying a compress, is to fill a wax-holder, such as is employed for taking impressions of the mouth, with wax, previously softened in warm water, and then applying it in such a manner as completely to imbed the teeth and gums in it. This method of compressing the gums was suggested to the author by Dr. O. Holmes, of Baltimore.

HÆMORRHA'GIÆ. Hemorrhages. A distinct order in the class *pyrexiæ* of Dr. Cullen's nosological arrangement.

HÆMORRHŒ'A. Passive hemorrhage.

Hæmorrhœa Petechialis. Purpura hæmorrhagica.

HÆMORRHOI'DAL. *Hæmorrhoidalis.* Relating to hemorrhoids, as a hemorrhoidal tumor, or flux.

Hæmorrhoidal Arteries. The arteries of the rectum. Three are enumerated; the *superior, middle* and *inferior.*

HÆMORRHOIDAL NERVES. Filaments sent from the sciatic and hypogastric plexuses to the rectum.

HÆMORRHOIDAL VEINS. They are two, the external and internal.

HÆMORRHOIDES ORIS. Hemorrhage from the veins of the palate, uvula, fauces, and sometimes from the gums, resulting from a suppression of the hemorrhoidal discharge.

HÆMOR'RHOIS. From αιμα, blood, and ρεω, I flow. Piles. A varicose enlargement of the veins about the anus and of the rectum, and a discharge of blood from them.

HÆMOSPAS'TIC. From αιμα, blood, and σπαω, I draw. That which draws the blood to a part.

HÆMOSTA'SIA. From αιμα, blood, and στασις, stagnation. Stagnation of blood. That which stops the flow of blood.

HÆMOSTAT'IC. *Hæmostaticus;* from αιμα, blood, and σταω, to stop. That which is calculated to arrest a hemorrhage. A styptic.

HÆMOT'ROPHY. *Hæmotrophia;* from αιμα, blood, and τροφη, nourishment. Excess of nourishment of the blood.

HAGGARD. An expression of countenance, especially of the eye, indicative of terror and grief.

HAIR. *Pilus.* Corneous filaments, which issue from the skin, and to which it adheres by means of a bulb. They include the hairs of the head, eye-brows, eye-lashes, those of the trunk, beard, and of the axillary and pubic regions.

HAIR LICHEN. *Lichen pilaris.* An eruption confined to the roots of the hair, followed, after ten days, by disquamation.

HAIR, FALLING OFF OF. Alopecia.

HAIR, PLATTED OR MATTED. Plica.

HAIR-WORM. Seta equina.

HALCHEMI'A. From αλς, salt, and χεω, I pour out. The art of fusing salts.

HAL'ITUS. From *halo*, to breathe out. Vapor. Also, the breath.

HALITUS, SANGUINIS. The vapor exhaled by fresh blood.

HALLUCINA'TION. *Hallucinatio;* from *hallucinor*, to blunder. Depraved imagination, an error of an individual who believes he sees, or distinguishes by hearing, touching, smelling or tasting, objects not present.

HAL'LUS. The great toe.

HALO SIGNA'TUS. The impression formed by the ciliary processes on the anterior surface of the vitreous humor.

HAL'OGENE. Chlorine.

HA'LOID. From αλς, sea-salt, and ειδος, resemblance. Resembling salt. Salts which are compounds of chlorine, iodine, bromine, cyanogen and its compounds, and fluorine with metals.

HAM. Poples.

HAMAME'LIS VIRGINICA.—Witch-hazel. Winter witch-hazel.

HAMARTHRI'TIS. From αμα, at once, and αρθριτις, gout. Gout in all the joints.

HAM'MA. From απτω, to bind, or fit on. A truss for hernia.

HAM'ULUS. A little hook. In *Anatomy*, a hook-like process, as the hamulus of the pterygoid process of the sphenoid bone.

HAND. Manus.

HANDS, DROPPED. Paralysis of the hands caused by the action of lead.

HANDY, W. R. Anatomical and Physiological Relations of the Mouth, by. Published in volume eighth, American Journal of Dental Science. Professor Handy is also the author of a Paper on the Science of the Human Body, published in the same periodical.

HANDEL'S ODONTALGIC REMEDY. ℞.—Opium, ʒ ss; oil of henbane, ʒ j; extract of belladonna, extract of camphor, ā ā, gr. vi; oil of cajeput, tinct. cantharides, ā ā, ʒ j and gtt. vi. This is made into a paste, and introduced into the cavity of the aching tooth.

HANG-NAIL. A detached portion of epidermis near the finger nail.

HAPHON'OSI. Diseases of the sense of touch.

HAPLOTOM'IA From απλος, simple, and τομη, incision. A simple incision.

HAPSIS. The sense of touch.

HARBERT, SAMUEL C. A Practical Treatise on the Operations of Surgical and Mechanical Dentistry, by. Philadelphia, 1847.

HARE-LIP. *Labium leporinum; lagocheilus; lagostoma.* A vertical fissure or division of one or both lips. It is almost always congenital, though it may be produced by a wound. Sometimes the cleft is double. The fissure frequently extends to the alveolar arch and palate. When there is but one division it is called *simple; double*, when there are two, and *complicated*, when the maxillary bone and palate are implicated, or when one or more of the teeth project and occupy the separation in the lip. Mr. Fox gives a drawing of a very remarkable example of distortion, in which a portion of the jaw-bone, with three teeth, projected beneath the nose more than an inch and a quarter. Dr. Simms, describes in the American Journal Dental Science, vol. 5, page 51, a similar example of complicated hare-lip, and numerous others are on record.

The manner of remedying hare-lip consists, 1st, in removing the rounded edges of the cleft, and 2d, in bringing them accurately together and retaining them in contact until a union takes place. But with regard to the most eligible period of life for the performance of the operation, there exists a difference of opinion. Some think the sooner it is performed the better, others believe that the best time is, immediately after the child has ceased to suck; while others again think it better to defer it until even a later period.

For simple hare-lip, the operation may be performed in the following manner. The head of the child being slightly elevated and firmly secured by means of an assistant, a narrow flat piece of wood, or pasteboard, should be introduced between the lip and gums and held by another assistant; a narrow, sharp-pointed scalpel, or, what is preferable, a straight bistoury, is then passed through the margin of the lip, immediately below the nose, and by a single cut, in a straight line downwards, the rounded edge is removed. This operation is next repeated on the opposite side, leaving an aperture between the two margins resembling the letter V inverted. The margins are next brought accurately together and secured by passing two or three gold, steel-pointed, or steel pins, horizontally through them at regular intervals, and rather nearer the internal than external surface. The edges of the wound are now held in close contact by passing a separate ligature around each pin in the form of the figure 8. Some surgeons, however, seem to think that additional security is obtained by passing the ligature from one needle to the other. The suture having been applied to the points of the needles, if steel ones have been used, should be clipped off with a pair of cutting nippers. When the needles are properly applied, Mr. Fergusson is of opinion, that there is no necessity for straps or bandages to keep the cheeks forward, though it may be advisable to protect the tender adhesion of the wound for a few days, after their removal, by means of a strap. The needles may be withdrawn at the expiration of three or four days.

If there be any adhesion between the mucous membrane of the lip and gums, it should be separated before the operation is performed, and if any of the teeth project through the fissure, and cannot be carried back to their proper place in the dental arch, they should also be previously removed.

For cutting the edges of the fissure, some surgeons prefer scissors to the scalpel or bistoury.

In double hare-lip, both fissures should be closed at the same time, by passing the needles entirely across, and

securing them in the manner as above described.

HARE-EYE. See Lagophthalmia.

HARMALA. See Peganum Harmala.

HARMONY. *Harmonia;* from αρω, to fit together. In *Anatomy*, an immovable articulation, as in the case of the superior maxillary bones with each other.

HARRIS, JAMES H. James H. Harris, late surgeon dentist of Baltimore, was born November 3, 1795, in Salisbury, Conn., but while a mere boy, his father moved to the state of New York, where he was principally educated.

At about the age of nineteen or twenty, he commenced the study of medicine, and at twenty-two or three, after having graduated, commenced the practice of his profession in a small village near Cincinnati, Ohio, where he soon acquired the reputation of a scientific and skilful physician. He afterwards moved to Columbus, Ohio, and in 1824 to Lancaster. Here he soon succeeded in obtaining an extensive practice, but the arduous duties of his profession having somewhat impaired his general health, he determined to qualify himself for the practice of dental surgery and relinquish the exercise of the duties of general medicine. Availing himself of such information as he was able to derive from the works of the best authors upon the subject, and some instructions received from his brother, Dr. John Harris, he began, occasionally, about the year 1827, to operate upon the teeth, and being possessed of considerable mechanical tact and ingenuity, he soon relinquished the practice of general medicine altogether, and devoted his whole time and attention to dental surgery. In this as in the other branches of medicine he was eminently successful as a practitioner.

In alluding to his professional abilities as a dentist, Dr. M. Z. Kreider, an eminent practitioner of medicine and surgery of Lancaster, Ohio, says, "Bringing to his aid the experience of years in the medical profession—his intimate acquaintance with the structure of the human system, together with a naturally vigorous and well cultivated mind, he could not fail of success in this new enterprize. Consequently, we find him at once one of the ablest operators we have ever known. He was a man of engaging manners and eminently pious."

"In his ardent desire to improve himself, and elevate the profession of dental surgery, he left the place and friends to whom he was fondly attached, and moved to the city of Baltimore. Soon after, his health became impaired, and he died, October 24th, 1836, a victim to hæmorrhoids and calculus concretions of the gall-duct."

Although a good writer, Dr. Harris contributed nothing to the literature of dental surgery, except an Essay on the Importance of the Teeth; their diseases and curative indications.

HARRIS, JOHN. Observations on the Utility of Filing the Teeth, by; published in volume fifth of the American Journal of Dental Science. Dr. John Harris is also the author of a Dissertation on Tooth-ache, read before the American Society of Dental Surgeons, at their sixth annual meeting, and of Observations on the Evils Resulting from the Premature Application of Artificial Teeth on Plate, with Clasps, Obturators, Palates, &c., published in the same periodical.

HART, WILLIAM. Destructive Effects of Camphor on the Teeth, by; published in volume first of New York Dental Recorder.

HART'S TONGUE. Asplenium scolopendrium.

HART-WORT. Laserpitium siler.

HARTSHORN. Cornu cervi.

HARTSHORN, SPIRIT OF. A watery solution of ammonia.

HAS'TA. A spear. An epithet applied to parts of animals and vegetables which are supposed to resemble a spear.

HASTA REGIA. Asphodelus luteus.

HASTATE. Spear-shaped.

HASTEL'LA. A spear-shaped splint.

HARRING, D. Author of a Report of a Case of Fungus of the Inferior Maxillary, successfully treated; published in volume sixth of American Journal of Dental Science.

HAUNCH. That portion of the trunk formed by the lateral parts of the pelvis and hip-joint.

HAUSTUS. From *haurio*, to swallow. A draught. A single dose of liquid medicine.

HAUSTUS NIGER. Infusion of senna.

HAUFFMANN. Dissertation on the Teeth, their Diseases and Cure, by. Halle, 1698 and 1714.—Dissertation on Anti-tooth-ache Remedies, by. Halle, 1700.

HAWES, GEORGE E. Author of a Description of Anchylosis of Three Teeth, published in the New York Dental Recorder, volume first.

HAWES AND ALLEN. Popular Information on the Subject of Dentistry, by. New York, 1838.

HAYDEN, HORACE H. Horace H. Hayden, late surgeon dentist of Baltimore, and professor of dental pathology and therapeutics in the Baltimore College of Dental Surgery, was born in Windsor, Conn., on the 13th October, 1768. While a mere child he contracted a most remarkable fondness for books, which he cherished through all his subsequent life. "Such," says his biographer, "was his industry and systematic application, that at the age of four years he had read the bible regularly through." He soon contracted a great fondness for natural history, and while a mere boy, he manifested great ingenuity in the discovery of objects of interest, "while rambling through the fields or woods." He commenced the study of the ancient languages at the age of ten years, "but for some cause, not known, he soon abandoned it." As his mind became enlightened by intercourse with books, he manifested a great desire to travel, and at the age of fourteen, having obtained the reluctant consent of his parents, he entered on board of a new brig as a cabin boy, and in which humble capacity, he made two voyages to the West Indies. His desire for travel having, by this time, somewhat subsided, he returned to school and to his books, with greater industry and pleasure, but at the age of sixteen, being thrown upon his own resources for his maintenance, his parents being poor, he reluctantly submitted to be bound apprentice to a practical architect, whom he served until he became of age. Soon after, he sailed for the West Indies, in search of employment in his business at Point Petre, Gaudaloupe, but the periodical fever soon compelled him to return. He visited the West Indies again in the following spring, but was again compelled by the pestilence to return. "For several years after his return he pursued his business with great industry, embracing, at the same time, every opportunity to increase his knowledge."

When in his twenty-fourth year, he visited New York in quest of employment in his business, but in the fall returned to Connecticut, and not satisfied to remain idle through the winter, he occupied himself in teaching a school near Hartford. In this employment he was strongly urged to continue, but a circumstance had occurred which gave a new direction to his energies. "While in New York, he had occasion to call on Mr. Greenwood, a dentist, for his professional aid. While under treatment, the thought suddenly struck him that he would like to be a *dentist*," and he, at once, "determined to devote himself to dental surgery." He, therefore, immediately procured the few books which were then accessible, and not apprehending any deficiency in mechanical skill, he directed his course southward in quest of a location, where he might hope to win fame and fortune,

and arriving in Baltimore in 1804, he hired a frame house in Fayette street.

Aware that dentistry, as then generally practiced in the United States, had not attained a very high standard of excellence, he labored to elevate the calling to a "parallel with his own abilities, and make it worthy of the partiality which he had so suddenly and strangely contracted for it." To this end, he commenced the study of general medicine, and the extensive knowledge which he acquired, was such as to secure the confidence and respect of the medical profession, so that in later life, without solicitation on his part, the honorary degree of doctor of medicine was conferred upon him, both by the University of Maryland and the Jefferson College of Philadelphia. He soon acquired reputation and confidence, and became the companion of the most eminent physicians and medical professors of Baltimore. In such high estimation was he held, that he was invited about the year 1825, to read a course of lectures, on dentistry, before the medical class of the Maryland University. Dr. Hayden contributed several able papers to medical journals, embodying the result of some of his physiological researches, and displaying much ingenuity of mind, and experimental ability. He also devoted much time to the study of geology, and wrote a very valuable work on this department of physical science.

Having by his own unaided industry and talents acquired distinguished professional reputation, he was anxious for the elevation of the respectability of the art, and under these circumstances, a few months after the commencement of the publication of the American Journal and Library of Dental Science, he consented, at the solicitation of the author, in December, 1839, to unite with him and others, in a petition to the legislature of Maryland, to establish a Dental College; the faculty to consist partly of dental, and partly of medical practitioners. The legislature having granted a liberal charter, Dr. Hayden, at the advanced age of seventy, entered upon the duties of the chair assigned him in the institution, namely, dental physiology and pathology, with a zeal and energy worthy of the noble enterprize in which he had engaged. He labored faithfully to impart knowledge to his class, and having read every thing which could throw light upon the subject, his lectures were both interesting and instructive.

On the 18th of August, 1840, a few months after the legislature of Maryland had chartered the Baltimore College of Dental Surgery, a number of dentists met in the city of New York, for the purpose of forming an association for mutual improvement and encouragement, which resulted in the formation of the American Society of Dental Surgeons. Dr. Hayden was present on that occasion, and was unanimously chosen president, and to which office, he was, from year to year, elected until the period of his decease.

Until the illness which terminated his life, Dr. Hayden continued to exercise the duties of his profession, and to lecture to his class, and to use the language of his biographer, "there is much reason to fear that laborious bodily and mental exertion exhausted his little strength, and accelerated" this event. He died on the 26th of January, 1844, in the 75th year of his age.

Among his contributions to the literature of dental surgery are the following: 1. A paper entitled Conjoined Suppuration of the Gums. This was published in the New York Medical Recorder, 1825, and has subsequently been republished in the third volume of the American Journal of Dental Science. 2. An Investigation of the Nature, Growth, and Formation of the Human Teeth, with an explanation of the cause of their Decay, particularly of its uncommon prevalence in the middle and northern states of America, published in the New York Medical Repository,

1823. 3. Asphyxia, or the Appearance of the Teeth of those who have died from Strangulation, published in the Encyclopædia of Medicine. 4. Observations on the Use and Functions of the Salivary, Lachrymal and other Glands in the Human System, published in the New York Medical Repository, 1818. 5. Opening Address delivered before the American Society of Dental Surgeons at the second annual Meeting, published in the American Journal of Dental Science, volume second. 6. Comments upon a Dissertation delivered by the author, on the Diseases of the Maxillary Sinus, published in the third volume of the last named periodical.

HEAD. *Caput.* The upper extremity of the body; the cranium and face.

HEAD-ACHE. *Cephalalgia.* Pain in the head.

HEALTH. That state of the living body in which all its functions are healthily performed.

HEARING. *Auditus.* The faculty by which sound is received.

HEART. Cor. Καρδια. A muscular organ, which forms the centre of the circulating system in the higher order of animals, having four distinct cavities—two *auricles*, the *right* receiving the blood from all parts of the body, the *left* from the lungs, and two *ventricles;* the *right* sending the blood to the lungs by the pulmonary artery, and the *left* to every part of the body, by the aorta. It is of an irregular pyramidal shape, enclosed in a membrane called the pericardium, and is situated obliquely, and a little to the left side, in the chest, between the lungs.

Heart, Atrophy of the. A diminution in the thickness of the walls of this organ.

Heart, Displacement of the.—*Ectopia cordis.* It is generally the result of malformation.

Heart, Hypertrophy of the. A morbid increase in the muscular substance of the walls of this organ.

HEARTBURN. Cardialgia.

HEAT. Caloric. The sensation produced in the animal body by the transmission of caloric.

Heat, Absolute. The whole quantity of caloric existing in chemical union in a body.

Heat, Animal. Animal temperature.

Heat, Free. The heat which is sensible to the touch or thermometer.

Heat, Latent. Insensible heat, or heat which does not pass from one substance to another so as to affect the senses or the thermometer.

Heat, Prickly. See Lichen Tropicus.

Heat, Sensible. Free heat.

Heat, Specific. The amount of heat necessary to bring a given body to a certain temperature, compared with the number of degrees required to elevate water or another body.

Heat, Vital. Animal heat.

HEAVY INFLAMMABLE AIR. Carbureted hydrogen.

Heavy Spar. Sulphate of barytes.

HE'BE. Ηβη; from ηβαω, *flores, vigeo.* The hair of the pubes. Also, puberty.

HEBENSHEIT, J. E. Dissertation on Second Dentition, by. Leipsic, 1738.

HEBERT. The Citizen Dentist, by. Lyons, 1778.

HEBETUDO DENTIUM. See Hæmodia.

HECTIC. *Hecticus;* εκτικος; from εξις, habit. Belonging to the habit or constitution.

Hectic Fever. *Febris hectica.* A disease characterized by emaciation and fever of a peculiar type and character; frequent pulse, hot skin, particularly of the palms of the hands and soles of the feet, loss of appetite, and towards the last by colliquative sweat when in bed, and diarrhœa. It is generally a symptomatic disease.

HECTICA. Hectic fever.

HECTOGRAMME. One hundred

grammes, or three ounces, one drachm, and thirty-four grains, troy.

HECTOLITRE. A measure of one hundred French litres, or 211.35 pints.

HEDEO'MA. Pennyroyal.

HED'ERA HELIX. *Hedera arborea.* Ivy.

HEDERA TERRESTRIS. *Glechoma hederacea.* Ground ivy.

HEDGE GARLIC. Alliaria officinalis.

HEDYS'MA. Condiment.

HEISTER. Dissertation on the pain of Teeth, by. Altd, 1711.—Epistle on the Bones and Teeth, found in different parts of the human body, by. Thelmst, 1743.

HELCO'DES. Ulcerous.

HELCO'MA. An ulcer.

HELCYD'RION. A little ulcer.

HELEN'IUM. See Inula Helenium.

HELENIUM AUTUMNA'LE. Sneezewort.

HELIAN'THUS. From ηλιος, the sun, and ανθος, a flower. The name of a genus of plants.

HELIANTHUS ANNUUS. The sun-flower.

HELIANTHUS TUBEROSUS. Jerusalem artichoke.

HELICA'LIS. Belonging to the helix of the ear.

HEL'ICINE ARTERIES. The short arteries and vessels of the penis, given off from the larger vessels and smaller twigs of the artery of that organ.

HEL'ICIS MAJOR. A muscle of the ear, situated upon the upper point of the helix.

HELICIS MINOR. A muscle of the ear, which contracts the fissure of this organ.

HELICOTRE'MA. The foramen by which the scalæ of the cochlea communicate.

HEL'IOTROPE. The blood stone.

HELIOTRO'PIUM INDICUM.—*Convolvulus batatas.* The sweet potato.

HELIOTROPIUM MAJUS. Heliotropium Europæum.

HE'LIX. From ειλω, to turn round. The outer circumference or ring of the outer ear. Also, a genus of the snail-shell.

HELLEBORAS'TER. Helleborus fœtidus.

HELLEBORE, AMERICAN.—Veratum viride.

HELLEBORE, BLACK. Helleborus niger.

HELLEBORE, WHITE. Veratrum album.

HELLE'BORUS. The name of a genus of plants.

HELLEBORUS ALBUS. Veratrum album.

HELLEBORUS FŒTIDUS. Stinking hellebore. Helleboraster.

HELLEBORUS NIGER. Black hellebore.

HELMIN'THAGOGUS. *Helminthagoga;* from ελμινς, a worm, and αγω, I expel. Remedies used for expelling worms. Anthelmintics.

HELMIN'THIA. Helminthiasis.

HELMINTHIA ERRAT'ICA. Worms accidentally introduced into the stomach or intestines.

HELMINTHI'ASIS. A condition of body, favoring the generation of worms.

HELMINTHOL'OGY. *Helminthologia;* from ελμινς, a worm, and λογος, a description. A treatise or description of worms.

HELO'DES. A fever accompanied by profuse perspiration.

HELO'PYRA. Marsh fever.

HELO'SIS. From ειλω, I turn. Eversion of the eyelids.

HEMATURIA. See Hæmaturia.

HEMARD, URBAIN. Dissertation on the True Anatomy of the Teeth, their nature and properties, by. Lyons, 1582.

HEMERALO'PIA. From ημερα, the day, and ωψ, the eye. A defect of vision, by which a person is not able to see by day-light, but can see at night.

HEM'ERALOPS. One affected with hemeralopia.

HEMI. From ημισυς, half. The same as semi, and used as a prefix.

HEMICRA'NIA. From ημισυς, half, and κρανιον, the head. Pain, affecting only one side, or half of the head.

HEMIDES'MUS INDICUS. An Indian plant, used as a substitute for sarsaparilla.

HEMIO'PIA. From ημισυς, half, and οπτομαι, I see. A defect of sight, in which a person affected with it can see only one half of an object.

HEMIOP'SIS. Hemiopia.

HEMIPA'GIA. Hemicrania.

HEMIPLE'GIA. *Hemiplexia;* from ημισυς, half, and πλησσω, I strike. Paralysis of one side of the body.

HEM'ISPHERE. *Hemisphera;* from ημισυς, half, and σφαιρα, a sphere. One half of a sphere, or of a body of spheroidal shape. The upper portion of the brain is divided into hemispheres.

HEMITRITÆ'US. A semitertian ague.

HEMLOCK. Conium maculatum.

Hemlock Dropwort. Œnanthe crocata.

Hemlock Tree. Hemlock, spruce. Pinus Canadensis.

Hemlock, Water. Cicuta virosa.

HEMORRHAGE. Hæmorrhage.

HEMP. Canabis sativa.

Hemp, Indian. Apocynum cannabinum.

HENBANE. Hyoscyamus niger.

HE'PAR. Ηπαρ, the liver. An ancient name for the liver of sulphur, *hepar sulphuris.*

Hepar Antimonii. An oxy-sulphuret of antimony.

Hepar Martia'le. A compound sulphuret of potass and oxyd of iron.

Hepar Sulphuris Volatilis. The hydro-sulphuret of ammonia.

HEPATAL'GIA. From ηπαρ, the liver, and αλγος, pain. Pain in the liver.

Hepatalgia Calculosa. Pain caused by biliary calculi.

Hepatalgia Phlegmonoides. See Hepatitis.

HEPATAPOSTE'MA. From ηπαρ, the liver, and αποστημα, an abscess. Abscess of the liver.

HEPATEMPHRAX'IS. From απαρ, the liver, and εμφρασσω, I obstruct. Hepatic obstruction.

HEPAT'IC. *Hepaticus;* from απαρ, the liver. Relating to the liver.

Hepatic Artery. *Arteria hepatica.* The artery of the liver; a branch of the cœliac.

Hepatic Duct. *Ductus hepaticus.* A duct which conveys the bile from the liver towards the duodenum, and being joined by the cystic duct; the two form the ductus communis choledochus.

Hepatic Flux. A form of dysentery, in which there is a copious discharge of biliary matter.

Hepatic Plexus. *Plexus hepaticus.* The nervous filaments of the cœliac plexus which accompany the hepatic artery.

Hepatic Veins. *Venæ hepaticæ.* The veins which return the blood conveyed to the liver by the hepatic artery and vena porta, to the vena cava inferior.

HEPAT'ICA. American liverwort. Also, the name of a genus of plants.

Hepatica Tril'oba. *Hepatica Americana.* Liverwort.

HEPATI'CÆ. The liverwort tribe of acotyledanous plants.

HEPATIRRHŒA. From ηπαρ, the liver, and ρεω, I flow. An intestinal flux, with bilious evacuations.

HEPATISA'TION. *Hepatisatio.*—The conversion of any texture into a liver-like substance. Applied to a morbid condition of the lungs.

HEPATI'TIS. From ηπαρ, the liver, and *itis,* denoting inflammation. Inflammation of the liver.

Hepatitis, Chronic. Chronic inflammation of the liver.

HEPATIZA'TION. Hepatisation.

HEPATOCE'LE. From ηπαρ, the liver, and κηλη, a tumor. Hernia of the liver, or a protrusion of this organ through the abdominal parietes.

HEPATOCO'LIC. Belonging to the liver and colon.

HEPATO-CYSTIC. Pertaining to the liver and gall bladder.

Hepato-Gastric. Pertaining to the liver and stomach.

HEPATOG'RAPHY. *Hepatographia;* from ηπαρ, the liver, and γραφη, a description. An anatomical description of the liver.

HEPATOHÆ'MIA. From ηπαρ, the liver, and αιμα, blood. Sanguinous engorgement, or congestion of the liver.

HEPATOL'OGY. *Hepatologia;*— from ηπαρ, the liver, and λογος, a discourse. A treatise on the liver.

HEPATOMALA'CIA. Softening of the liver.

HEPATON'CUS. Tumefaction of the liver.

HEPATOPHY'MA. Abscess of the liver.

HEPATOT'OMY. Dissection of the liver.

HEPTAN'DRIA. *Heptandrous;*— from επτα, seven, and ανηρ, a man, or husband. Plants with hermaphrodite flowers and seven stamens.

HEPTAPLEU'RUM. See Plantago Major.

HEPTAR-TOMPHALUS. Umbilical hernia, with a portion of the liver.

HERACLE'UM. The name of a genus of plants.

Heracleum Gummiferum. Dorema ammoniacum.

Heracleum Lannatum. Masterwort.

Heracleum Spondylium. Spondulium. Cow-parsnip.

HERBA. Herb. Herbs which perish the same year are called *annuals;* and those which have their leaves the first, and flowers and fruit the second, are called *biennials.*

Herba Alexandrina. Smyrnium Alexandrinum.

Herba Benedicta. Geum urbanum.

Herba Britannica. Rumex hydrolapathum.

Herba Felis. Nepeta cataria.

Herba Julia. Milfoil.

Herba Melancholifuga. Fumaria officinalis.

Herba Patri. Primula veris and crithmum maritimum.

Herba Regia. Ocymum officinalis.

Herba Sacra. Verbena trifoliata.

Herba Sanctæ Barbareæ. Erysimum barbarea.

Herba Trinitatis. Anemone hepatica.

HERBA'CEUS. Like an herb.

HERBA'LIST. One who deals in herbs.

HERBA'RIUM. A collection of dried specimens of plants.

HERBIV'OROUS. From *herba,* grass, and *vero,* I eat. Animals which feed on herbs.

HERBORIZA'TION. A tour for the collection of plants.

HERED'ITARY. *Hereditarious;* from *hæres,* an heir. An epithet applied to diseases propagated from parents to their offspring, as phthisis pulmonalis, &c.

HERMAPH'RODITE. *Hermaphroditus;* from Ερμης, Mercury, and Αφροδιτη, Venus, that is, partaking of both sexes. One who has the organs of the two sexes so developed as to render it doubtful to which it belongs. In *Botany,* a flower which contains both stamens and pistils.

HERMET'IC. *Hermeticus;* from Ερμης, Hermes, Mercury, the fabled inventor of chemistry. Pertaining to chemistry. That part of chemistry which had for its object the pretended transmutation of the metals.

Hermetic Seal. The closing of a glass vessel in such a way as to prevent the most volatile substances from escaping. It is generally done by fusing the orifice with a lamp and blow-pipe.

HERMODAC'TYLUS. A bulbous root, brought from the east, supposed to be the product of the *iris tuberosa.*

HERNANDEZ. Semiology of the Tongue, Lips and Teeth, by. Toulon, 1708.

HERNIA. From ερνος, a shooting forth, a branch. *Ramex*, a rupture. A tumor, formed by the displacement and protrusion of the whole, or a part of a viscus. Herniæ are distinguished according to the regions in which they occur.

Hernia Cerebri. Encephalocele. Hernia of the brain.

Hernia Congenita. The adhesion of a protrusion of intestine or omentum to the testicle, after its descent into the scrotum.

Hernia Cruralis. Femoral hernia.

Hernia Epiploic. Epiplocele.—Omental hernia.

Hernia Femoralis. Hernia cruralis.

Hernia Humoralis. See Orchitis.

Hernia Incarcerata. Incarcerated, or strangulated hernia. Hernia with a stricture.

Hernia Inguinalis. Bubonocele. Inguinal hernia.

Hernia Intestinalis. See Enterocele.

Hernia Ischiatica. Hernia at the ischiatic notch.

Hernia Lachrymalis. Swelling from distention of the lachrymal sac.

Hernia Mesenterica. Mesenteric hernia.

Hernia Mesocolica. Mesocolic hernia.

Hernia Omentalis. Epiplocele. Omental hernia.

Hernia Oschealis. Scrotal hernia.

Hernia Perinealis. Perineal hernia.

Hernia Pharyngis. See Pharyngocele.

Hernia Phrenica. Diaphragmatic hernia.

Hernia Pudendalis. Pudendal hernia.

Hernia Sacci Lachrymalis. Rupture of the lachrymal sac.

Hernia Scrotalis. Oscheocele.—Hernia oschealis. Scrotal hernia.

Hernia Thyroidealis. Thyroideal hernia.

Hernia Umbilicalis. Umbilical hernia.

Hernia Uteri. Hysterocele. Hernia of the uterus.

Hernia Vaginalis. Vaginal hernia.

Hernia Varicosa. See Varicocele, and Cirsocele.

Hernia Venarium. Varix.

Hernia Veneris. A tumefied testicle.

Hernia Ventosa. See Pneumatocele.

Hernia Ventralis. A hernia at any point of the anterior part of the abdomen.

Hernia Ventriculi. Gastrocele. Abdominal hernia of the stomach.

Hernia Vesicalis. Cystic hernia. Cystocele. Hernia of the urinary bladder.

HER'NIAL. Pertaining to hernia.

HERNIOT'OMY. The operation for hernia.

HER'PES. From ερπω, I creep, because it creeps and spreads about on the skin. Tetter. A cutaneous eruption, appearing in patches, upon an inflamed base, attended with more or less heat, itching, and, sometimes, considerable local uneasiness, but terminating in from eight to fifteen or twenty days in furfuraceous scales.

Herpes Ambulativus. Thought by some to be an erratic erysipelas.

Herpes Circina'tus. Ring-worm.

Herpes Depa'scens. A corroding form of herpes.

Herpes Esthiom'enos. Herpes attended by ulceration and great destruction of skin.

Herpes Exe'dens. Herpes which spreads rapidly.

Herpes Farinosus. Herpes having furfuraceous exfoliations.

Herpes Ferus. Erysipelas.

Herpes In'dicus. An itching herpes peculiar to India.

Herpes Iris. A cutaneous eruption occurring in small circular patches on the palms of the hands, fingers, and instep, each consisting of concentric rings of different colors.

HERPES LABIALIS. A cutaneous eruption on the edges of the lips, and about the corners of the mouth.

HERPES MILIARIS. Herpes beginning with an eruption like millet seeds.

HERPES PERI'SCELES. Herpes zoster. The shingles.

HERPES PHLYCTÆNODES. A vesicular eruption, usually preceded by slight fever, and occurring in irregular clusters, most frequently, on the cheeks, neck, arms, breast, and, sometimes, on other parts of the body. The vesicles, which contain a colorless, and sometimes a brownish fluid, break about the fourth day, or begin to dry up, forming a dark or yellowish scab, which, about the eighth or tenth day falls off, when the subjacent skin gradually assumes a healthy appearance.

HERPES PRÆPUTIALIS. A vesicular eruption either upon the outer or inner surface of the prepuce.

HERPES PUSTULO'SUS. A name applied to different forms of acne.

HERPES SERPI'GO. Herpes circinatus. Ring-worm.

HERPES SICCUS. The dry, mealy tetter.

HERPES ZOSTER. The shingles.

HERPETIC. *Herpeticus;* from *herpes*, a disease of the skin. Pertaining to herpes.

HERPE'TON. *Herpeticon;* from ερπειν, to creep. A creeping ulcer.

HERSH. Practical Remarks on the Teeth, by. Jena, 1796 and 1801.—On the Means of Preserving the Health of the Teeth, by. Ronneburg and Leipsic, 1799.

HERTZ, J. P. Author of a Familiar Dissertation on the Causes and Treatment of the Diseases of the Teeth, by. London, 1815.

HESLOPP. Dissertation on Difficult and Laborious Teething of Infants, by. Leid, 1700.

HESPERI'DEÆ. Evergreen plants with rigid leaves, odorous and polyandrous flowers, as the clove, myrtle, wintergreen, &c.

HESSIAN CRUCIBLE. A crucible made of fine clay and sand.

HETERO-. A prefix, from ετερος, different, used in medicine.

HETERO'-CHYMEU'SIS. A depraved chymification and sanguification; and a class of diseases in which this is indicated.

HETERO'CLITE. See Heterologous Formations.

HETEROGE'NEOUS. Unlike in kind. Opposed to homogeneous.

HETEROLO'GOUS TISSUES.—Morbid tissues. See Heteroplasis.

HETEROMOR'PHISM. *Heteromorphismus;* from ετερος, other, and μορφη, shape. Malformation, or deviation from natural shape of parts.

HETERO'PATHY. *Hetoropathia;* from ετερος, different, and παθος, affection. The removal of a morbid condition of body by exciting a different morbid condition. Allopathy.

HETEROPHO'NIA. From ετερος, different, and φωνη, voice. An impaired, cracked, or broken voice.

HETERO'PLASIS. *Heteroplasty;* from ετερος, different, and πλασις, formation. Formations which do not belong to the healthy body, as cancer, &c.

HETEROSARCO'SES. From ετερος, different, and σαρξ, flesh. Diseases which consist in the production of false tissues.

HETEROREXIA. Malaria.

HETEROTAX'IA. From ετερος, different, and ταξις, order. Transposition of organs.

HETEROTOP'IA. From ετερος, and τοπος, place. Deviation from natural place of parts.

HEUCHE'RA. The alum root.—Also, the name of a genus of plants.

HEUCHERA CORTUSA. *Heuchera Americana. Heuchera viscida.* The alum root, or American sanicle; a perennial plant.

HEURNIUS. Author of a Tract on the Diseases of the Eye, Ear and Teeth. Leid, 1602.

HEVEA GUIANENSIS. Hevea

elastica. One of the trees which yield caoutchouc.

HEXAGY'NIA. Hermaphrodite plants with six pistils.

HEXAN'DRIA. Hermaphrodite plants with six stamens of equal length.

HEXAPE'TALOUS. Having six petals.

HEXAPHYL'LOUS. Having six leaves.

HEX'IS. Εξις, habit. Habit of body. Constitution.

HEYE. Author of a Dissertation on the Pain of the Teeth, published, Helmstadii, 1672.

HIA'TUS. From *hiare*, to gape. Literally, a gap. In *Anatomy*, an orifice, aperture, or passage. Also, yawning.

Hiatus Fallopii. The aquæductus Fallopii.

Hiatus of Winslow. The foramen of Winslow.

HIBER'NICUS LAPIS. A kind of bluish slate, found in masses in different parts of Ireland.

HIBIS'CUS. Althæa. Also, the name of a genus of plants.

Hibiscus Abelmos'chus. The plant which yields the *grani moschi*, or musk seed.

Hibiscus Popule'us. A small tree, or shrub of Molucca.

HICCOUGH. Singultus.

HICCUP. Singultus.

HIDRO'A. From ιδρως, sweat.—Sudamina. Also, eczema.

HIDRO'NOSOS. Sudor anglicus. Sweating sickness.

HIDROPHO'ROUS. Sudoriferous.

HIDROPY'RETUS. A sweating fever.

HI'DROS. From ιδρως, sweat.—Sweat.

HIDROT'ICUM. Sudorific.

HIERA PICRA. From ιερος, holy, and πικρος, bitter. Holy bitter. An aloetic powder made into an electuary with honey.

HIERABO'TANE. Verbena trifoliata.

HIERA'CIUM MURO'RUM. Pulmonaria gallica. Auricula muris major.

Hieracium Pilosel'la. The systematic name of the auricula muris, or mouse-ear.

HIERA'NOSOS. Epilepsy. Also, chorea.

HIGHMORE, ANTRUM OF. See Maxillary Sinus.

HILL, A. The Teeth, with respect to the Voice, by. Published in volume eight of the American Journal of Dental Science.

HILLBERRY. Gaultheria.

HILSCHER. Dissertation on Odontalgia, by. Jena, 1748.

HIMANTO'SIS. *Himas.* Relaxation and elongation of the uvula.

HIP. Haunch. The articulation of the thigh with the pelvis. The ripe fruit of the rosa canina.

Hip Bone. The ischium.

HIPPANTHRO'PIA. From ιππος, a horse, and ανθρωπος, a man. A diseased imagination, in which the individual fancies himself changed into a horse.

HIPPO-. From ιππος, a horse. A prefix, signifying a large size.

HIPPOCAM'PUS MAJOR. The cornu ammonis. The internal surface of the convolution of the lateral edge of the hemisphere of the brain.

Hippocampus Minor. A medullary eminence situated in the posterior cornu of the lateral ventricle of the brain.

HIPPOCAS'TANUM. The horse chestnut.

HIPPOCRAT'IC. Relating to Hippocrates, or his doctrine.

HIPPOT'OMY. *Hippotomia;* from ιππος, a horse, and τεμνειν, to cut. The anatomy of the horse.

HIPPOPOT'AMUS. The river horse, an inhabitant of the rivers and lakes of the south of Africa. The incisor teeth, or tusks of this animal, which attain from twelve to fifteen inches in length, were formerly very generally used by dentists for artificial teeth. At

present, however, they are seldom employed for this purpose.

HIPPURIC ACID. An acid found in the urine of the horse and other ruminants. Also, in human urine, after taking benzoic acid.

HIPPU'RIS VULGARIS. The horse's or mare's-tail.

HIPPUS. From ιππος, a horse. A disease of the eyes, characterized by perpetual twinkling, or repeated alternate dilatation and contraction of the iris.

HIRCUS. Tragus. A goat.

HIRQUUS. The inner canthus of the eye.

HERSU'TIES. Hairiness. The growth of hair in unusual situations, or in greater abundance than usual.

HIRU'DO. The leech.

Hirudo Medicinalis. The medicinal leech.

HIRUNDINA'RIA. See Lysimachia Nummularia.

HIRUN'DO. The swallow.

HISTOGEN'IA. *Histogeny;* from ιστος, organic, and γενεσις, generation. The formation of organic tissues.

HISTOL'OGY. General anatomy, as also, the minute anatomy of the tissues.

HISTON'OMY. *Histonomia;* from ιστος, organic, and νομος, law. The laws which govern the development and arrangement of organic tissues.

HITCHCOCK, D. R. Preservation of the Teeth, a Family Guide, by. Boston, 1840.

HIVE SYRUP. Syrupus scillæ compositus.

HIVES. Croup. Also, a species of chicken pox, the *varicella globularis.*

HOARSENESS. Raucedo.

HOARY. Of a gray, bluish-green color.

HOFFMAN'S ANODYNE. Spiritus ætheris sulphurici compositus.

HOG. Sus scrofa.

Hog's Lard. Adeps præparata.

HOLCE. Ολκη. A drachm.

HOLERA'CEOUS PLANTS. Culinary herbs.

HOLLANDS. Gin.

HOLLY. Ilex aquifolium.

Holly, Dahoon. Ilex vomitoria.

Holly, Ground. Chimaphilla umbellata.

Holly, Knee. Ruscus aculeatus.

Holly, Sea. Eryngium maritimum.

HOLLYHOCK. Alcea rosea.

HOLMIS'CUS. A small mortar. Also, the socket of a tooth.

HO'MA. An anasarcous swelling.

HOMO. Man. A mammiferous animal, of the *bimana, two-handed,* of which he is the only genus.

HOMŒOP'ATH. A homœopathist.

HOMŒOP'ATHY. *Homœopathia;* from ομοιος, similar, and παθος, affection. A doctrine which maintains that all diseases of the body are to be cured by inducing other diseased actions of the same kind, and that this is to be effected by exceedingly minute doses of medicine.

HOMOGE'NOUS. Having the same structure throughout. Having elements of the like nature.

HOMOIO'SIS. From ομοιοω, I resemble, I assimilate. The elaboration of the chyle, by which it is assimilated to the blood.

HOMOL'OGY. The doctrine of similar parts.

HOMOPH'AGUS. From ωμος, raw, and φαγω, I eat. One who eats raw flesh.

HOMOPLAS'TY. The formation of homologous tissues.

HOMOT'ONOS. Acmasticos. Having the same tone.

HONESTY. Lunaria rediviva.

HONEY. *Mel.* A mucoso-saccharine substance, of a yellowish color, and aromatic smell, elaborated by the *apis mellifica,* or honey-bee, from the nectaries of flowers, and deposited in the cells of the comb.

Honey of Squill. Syrupus scillæ compositus.

HONEYSUCKLE. Lonicera periclymenum.

HOODED. Cucullate. Cone-shaped.

HOOK. A curved steel instrument, used by anatomists, surgeons and dentists. The tenaculum is a variety of hook used by the two former, and the hook belonging to the key of Garengeot, and the one with a forked, or crescent-shaped extremity, with a straight shaft attached to a handle, and used for the extraction of the roots of molar teeth, are the kinds employed by the latter. The hooks used with the key instrument in the extraction of teeth, should correspond in size with the size of the organs to which they are applied, and be so shaped at the extremities as to secure a firm hold upon them.

Hook, Saunders'. A hook for the key instrument, invented by Dr. Edwin Saunders, of London, so constructed that it may be applied to any small key, and is adapted for the removal of large roots. Its peculiarity consists in having an angular projection on its convex part, upon which the forefinger of the left hand may be firmly pressed, while the key is used in the ordinary direction, but with a number of short turns, so as to dislocate the root, when it will be found to rise easily in the socket.

HOOPING-COUGH. Pertussis.

HOP PLANT. Humulus lupulus.

HORDEIN. Starch of barley.

HORDEI SEMINA. Pearl barley.

HORDE'OLUM. A diminutive of *hordeum*, barley. A stye, or small tumor of the eyelids, which is somewhat of the nature of a little boil.

HOR'DEUM. Barley. Also, the name of a genus of plants.

Hordeum Causticum. Veratrum sabadilla. Indian caustic barley.

Hordeum Vulgare. The common barley.

HOREHOUND. Marrubium vulgare.

Horehound, Black. Stinking horehound. Ballota nigra. Ballota fœtida.

Horehound, Wild. Eupatorium teucrifolium.

HORMINUM. Salvia sclarea.

HORN. Cornu.

Horn-Seed. Secale cornutum.

Horn-Shaped. Cornutus.

HOR'RIDA CUTIS. Cutis anserina. Goose-skin.

HORRIPILA'TION. *Horripilatio;* from *horrere*, to bristle up, and *pilus*, a hair. A shuddering, chilly, or creeping sensation, with bristling of the hairs, over the body, preceding fever.

HORSE CHESTNUT. Æsculus hippocastanum.

Horse-Radish. Cochlearia armoracia.

Horse-Tail. Hippuris vulgaris.

HORSTIUS. On the Golden Tooth, by. Leipsic, 1595.

HORTUS. Vulva.

Hortus Siccus. A collection of dried plants.

HOSPITAL. From *hospes*, a guest. An establishment for the reception and medical treatment of the sick.

Hospital Gangrene. A peculiar form of gangrene, occurring in hospitals, in which the air, by the accumulation of patients, or want of proper ventilation, has become vitiated.

HOUND'S-TONGUE. Cynoglossum.

HOUSE-LEEK. Sempervivum tectorum.

HUDSON, EDWARD. Edward Hudson, late surgeon dentist, of Philadelphia, was born in the year 1772, in the county of Wexford, Ireland. His parents it is believed, were members of the religious society of friends, and although left an orphan at an early age, the principles implanted in his mind by his connexion with this proverbially honest and upright sect, appeared to germinate, and in maturer years to produce appropriate fruit.

He was remarkable for blandness of manners; an equanimity of temper, which nothing seemed ever to disturb, and a simplicity of character, combined with great steadiness of purpose and unbending integrity, which secured for him numerous friends, and caused him

to be respected and beloved wherever he was known.

A cousin, established as a dentist in the city of Dublin, and who stood in the foremost rank in his profession, adopted young Hudson as his son; and soon after entered him as a student at Trinity college.

His studies here were pursued with ardor and delight, and the result realized the fondest hopes of his guardian, himself a man of very considerable classical and literary attainments. Under the kind and judicious care of his relative, Mr. Hudson rose rapidly in qualification for his profession, and his future fame and eminence were confidently predicted.

While residing in the house of his cousin he practiced dental surgery for a considerable time, until he was arrested at the house of Mr. Oliver Bond, and imprisoned by order of the government, a circumstance for which we shall presently account.

At the hospitable board of his instructor and friend, he had the advantage of constant communication and intercourse with men distinguished for literary, classical and scientific attainments, his cousin's house being a resort for the elite of Europe, who, in him hailed a congenial spirit.

While at college Mr. Hudson became a member of several of the debating and historical societies established about this time in the city of Dublin. He thus became associated with many of the most celebrated and distinguished literary luminaries of the age—among these may be enumerated, Tom Moore, the poet, the Emmets, the Sheares, the Corbetts and others—with these Mr. Hudson was on terms of the greatest intimacy and friendship.

He soon became known as a writer and debater, and, as the association was established upon the basis of a reciprocal interchange of sentiment in all matters connected with the well being of society, and the interests of mankind at large, being in short, thinking men, and men, moreover, whose object was to devise means to render their fellows wiser and happier. It followed as a necessary consequence that views were promulged so liberal in their tendency and anti-aristocratic in their scope, that the Anglo-Irish government became alarmed; and, in unison with its settled policy, to suppress every expression of sentiment calculated to open the eyes of the people to the tyranny of their rulers. The lord chancellor Clare exercised his prerogative by ordering the dissolution of both the societies, and the banishment of such members as were most obnoxious to the censure of the government.

Many of those who remained, however, soon became active members of the society of United Irishmen, and among them, Mr. Hudson took a prominent and distinguished part.

Some of these men, as is well known, expiated with their lives their devotion to their country and their love for their fellow-men. Some suffered long and painful incarceration in the filthy jails of the metropolis, and many more were compelled, after becoming convinced of the inutility of further labors, to fly their country, and seek liberty and happiness in other lands.

To this necessity were we indebted for the residence of Dr. Hudson in the city of Philadelphia. But unlike some others, he was not permitted to expatriate himself in his own time and way. His first determination after he had became a mark for the shafts of tyranny and oppression, was to settle himself in London, in order to pursue the practice of his profession, but ere he could depart, he, with twenty-two other leaders of the United Irishmen were seized and transported to Fort George, in Scotland, where they were confined until the peace of Amiens, in 1802. While confined in Fort George he was visited, professionally, by many of the nobility and gentry of the surrounding country, and so well satisfied were they of his skill

and integrity, that not only were large fees paid him very cheerfully, but great regret expressed, when, by his liberation from confinement, his services could no longer be obtained.

After being released from this long and tedious imprisonment of four years' duration, Dr. Hudson abandoned his original design of settling in London, and came to Philadelphia.

He commenced the practice of dental surgery some time after his arrival in that city, where he found but one gentleman who had obtained the full confidence of the public, the late Dr. James Gardette, a practitioner of high standing in his profession, of acknowledged skill, combined with great scientific attainments, which, together with his honesty and integrity, rendered him in every way worthy of the reputation he enjoyed. During the earlier years of Dr. Hudson's residence in Philadelphia, he was induced, probably by glowing accounts and representations of sudden acquisition of wealth, to engage in two distinct partnerships. Neither of these seems to have been fortunate; possibly on account of injudicious speculations, but more probably from a lack of commercial skill and tact, so far, at least, as Dr. Hudson was concerned, for all experience has proved, that men educated for, and possessing skill in, any of the learned professions, are almost necessarily deficient in the peculiar talent and acumen necessary to secure success in mercantile or monetary speculations. His first partnership connection was with his father-in-law, Mr. Patrick Byrne, with whom he embarked in the stationery business. This, however, was soon relinquished.

At a subsequent period he engaged in brewing, with a gentleman in whom he reposed the utmost confidence, both as to integrity and knowledge of the peculiar duties appertaining to this art. For a time the firm seemed to be in a prosperous condition, but became suddenly and deeply involved, and that to an extent for which no remedy remained except the last and most trying one, the relinquishment of the whole business into the hands of the creditors.

This failure was said to have been owing to gross mismanagement on the part of the senior partner, but we believe no charge of want of integrity was ever intimated.

The firm paid a per centage on its debts, and received a unanimous release from all its liabilities.

After the first misfortune, Dr. Hudson immediately resumed the practice of the profession which he had originally chosen, and for which he was so eminently qualified both by natural genius and education.

He did not relinquish his practice on entering into the second partnership, but continued to pursue it during the whole time the connection existed—the majority of his former patients and friends gladly returning to him as soon as it was known he had resumed the duties of his office.

This enabled him to liquidate every claim which this unfortunate speculation had created.

And never did any man more heartily rejoice to feel himself free from such incumbrance. The desire to accomplish this noble "duty," as he thought it, had weighed on his mind constantly from the time of his failure, and had rendered his days anxious and his nights sleepless.

This duty was unwaveringly performed; and not only were the debts extinguished, but the interest on them was paid to the last farthing.

Although this was simply an act of justice, and as such requires no laudatory notice, it, nevertheless, gives us great pleasure to record it, as it speaks trumpet-tongued for the good faith and uprightness by which this noble and pure hearted man was ever distinguished. The virtue of strict and uncompromising honesty is so rarely practiced in our degenerate age, that even as an example

to others, when a brilliant instance like the present occurs, it seems well to give it publicity, for in this case it will be recollected that Dr. Hudson was not *legally* bound for a dollar of the money which he disbursed with such alacrity and good will.

From this time, Dr. Hudson resumed the cheerful and bright hearted temperament which had been habitual to him, but which, in consequence of the many and sad reverses to which he had been subjected, added to severe domestic afflictions, it was feared by his friends he had lost forever, and from this period also his professional business rapidly augmented and his circumstances became easy.

He was realizing a handsome competence, and in his case it should seem that the adage that "rogues succeed in business better than honest men," was not verified; and his friends felt convinced that Providence had, indeed, smiled upon the man, who, in the sincerity of his heart had striven to "do unto his neighbor as he would have his neighbor do unto him."

The personal appearance of Dr. Hudson was highly prepossessing. Taller than ordinary, his fine figure was well proportioned and graceful, and the nobility of his soul was fitly indicated by the outward grace and dignity of his bearing.

Dr. Hudson died in January, 1833, at the age of sixty-one years, deeply lamented not only by his immediate family, but by a large circle of attached and devoted friends, among whom were numbered many of the wealthiest and most distinguished of the scientific and literary persons resident in Philadelphia.

All who knew him intimately, respected and prized him, for the exceeding goodness and sincerity which shone so brightly conspicuous in his character. By his patients he was idolized as few of his professional brethren can ever expect to be.

All who approached him were delighted with the blandness of his manners; all could see at a glance there was nothing approaching charlatancy visible in his opinions or practice.

His advice was imparted with a modest bearing which charmed, but with a quiet confidence which carried a conviction of his admirable skill to the minds of all by whom he was consulted. We are aware our words fail to do justice to the many excellencies and virtues which distinguished Dr. Hudson. To those who knew him they are not needed; to those who knew him not, what has been said, may serve to give a faint idea of the character of this most excellent man and truly eminent dentist.

HUDSON'S PRESERVATIVE FOR TEETH AND GUMS. A pleasant aromatic mouth wash, consisting of tinct. myrrh., tinct. cinch. aq. cinnam. ā ā ℥ iij; eau d'arquebusade, ℥ i; pulv. gum Arabic, ℥ ss. M.

HULLIHEN, S. P. Observations on Tooth-ache, by. Published in the first volume of the American Journal of Dental Science. Dr. Hullihen is also author of the following papers, published in the same periodical. 1. Observations on Abscess of the Antrum Maxillary. 2. The report of a Case of Aneurism by Anastomosis of the Superior Maxillary. 3. Hare-lip, and its Treatment. 4. Of a Description of Compound Root Forceps. 5. Abscess of the Jaws and Treatment. 6. Cleft Palate and its Treatment. 7. Cases of Tic Douloureux, successfully treated with Lunar Caustic, by applying it in the antrum maxillare, &c., described in a paper read before the Ohio Co. Medical Society of Virginia.

HUMAN TEETH, CUSTOMS CONCERNING. Apart from the importance attached to the teeth, some very curious and singular customs connected with them, have obtained among many of the nations of the earth. It is said that the Brahmins of Hindostan, rub their teeth for more than

an hour with a twig from the racemiferous fig-tree, immediately after rising every morning, addressing their prayers, at the same time, to the sun, invoking blessings upon themselves and families. It is also said of them, that they separate their teeth as soon as the second set is formed.

The inhabitants of Tonquin and Siam, dye their teeth black, as do, also, the females of the Marian Islands, and the unmarried ladies of Java. Many of the women of Sumatra have their teeth filed off to the gums; others have them filed to points, or the enamel filed off, in order to dye them black, which is regarded as very ornamental. The great men of these islands color their upper teeth black and encase their lower ones with gold, creating a contrast which is regarded as particularly beautiful by candle-light. The inhabitants of some of the other East India islands, gild their two front teeth, and dye the others black.

The natives of Malacca cut horizontal grooves across their upper incisores, and the Abyssinian negroes file their teeth to points, giving them a notched or serrated appearance. The inhabitants of Prince William's Sound, says Mr. Murphy, make an incision in the upper lip, parallel with the mouth, and when the sides of the wound have healed, they insert a shell, carved in such a manner as to resemble teeth. The natives of the Sandwich islands, in order to propitiate their god, Eatooa, offer up to him their front teeth.

HUMEC'TANT. *Humectans;* from *humecto,* to make moist. A diluent. A drink supposed to increase the fluidity of the blood.

HU'MERAL. *Humeralis.* Pertaining to the humerus or arm.

Humeral Artery. The brachial artery.

HU'MERUS. From ωμος, the shoulder. The upper part of the arm and shoulder. Also, the bone of the arm, *os humeri,* which is of a cylindrical shape, and situated between the scapula and forearm.

HU'MILIS. The rectus inferior oculi.

HU'MOR. From *humeo,* to be moist. Any fluid of the body.

Humor, Aqueous. A thin, transparent fluid, which fills the two chambers of the eye.

Humor, Vitreus. The vitreous humor of the eye.

HUMORAL PATHOLOGY. That theory which attributes all diseases to disordered states of the fluids.

HUMORIC. The sound produced by percussion on the stomach, when distended with fluid or air.

HU'MORISTS. Those who attribute all diseases to a disordered condition of the fluids of the body.

HUMOUR. Humor.

HUMP BACK. A protuberance of the back, occasioned by a curvature of the spine.

HU'MULIN. The narcotic principle of the humulus lupulus.

HUMULUS LUPULUS. The hop plant.

HUNCH. Hump.

HUNGER. *Fames.* A desire for food, or want of it.

HUNGARIAN BALSAM. The resinous juice of the *pinus pumilio.*

HUNTER, JOHN. John Hunter, an eminent anatomist and surgeon, was born at Long Calderwood, about eight miles from Glasgow, Scotland, in the Parish of Kilbride East, Lanarkshire, February 13th, 1728. His family lived retired, and he remained comparatively uneducated until he arrived at that age when he felt the importance of knowledge and became ashamed of his idleness. Accordingly, in 1748, he went to London to assist his brother, Dr. William Hunter, in his anatomical inquiries. He applied himself with great diligence to his studies and became the best practical anatomist of the age. In 1755, he assisted his brother in delivering a course of lectures, but his arduous labors so im-

paired his health, that in 1760, his friends procured a situation for him in the army. In 1765, he was elected a fellow of the Royal Society. Through his influence a select club was formed out of the members of the society, who met in retirement for the purpose of reading and criticising each other's papers previously to submitting them to the general body. Among the numerous valuable contributions which he made to the literature of medicine, was a Treatise on the Natural History and Diseases of the Human Teeth; explaining their Structure, Use, Formation, Growth and Diseases, in two parts. The first was published in 1771, and the second in 1778.

Although Mr. Hunter was not a practical dentist, his name deserves to be held in grateful remembrance, by the members of the dental profession, for having laid the foundation, upon which nearly all that is known of at least the physiology of the teeth has been built, and his work upon this subject, notwithstanding all the errors which it contains, would, were it the only memorial which he has left, perpetuate his name to the latest period of time. It constitutes, in the language of Mr. Thomas Bell, "a never ceasing claim to the gratitude and admiration of every scientific practitioner of dental surgery." But it was in general anatomy and surgery that the principal energies of this great and most extraordinary man were chiefly expended, and it was in these departments that he was most pre-eminently distinguished. It would, therefore, be out of place to enlarge upon his life in a work like the present. He died, October 16th, 1793, in the sixty-fifth year of his age.

HURLOCK. A Practical Treatise upon Dentition, by. London, 1742.

HUSK. Glume; calyx.

HY'ACINTH. *Hyacinthus.* A gem.

HYACIN'THUS. A genus of plants. The hyacinth.

Hyacinthus Muscari. Bulbus vomitorius. Musk-grape flower.

HY'ALOID. *Hyaloides;* from υαλος, glass, and ειδος, likeness. Resembling glass. Transparent.

Hyaloid Fossa. The depression in the vitreous humor, in which the crystalline lens or humor is partially embedded.

Hyaloid Membrane. The membrane which forms the covering of the vitreous humor.

HYBOMA. Gibbosity of the spine.

HYBRID. *Hybrida;* from υβρις, an injury, because its nature is tainted. The offspring of two different animals, as the mule, or plants of a different species. In *Physiology*, words compounded of different languages.

HYDAR'THRUS. *Hydarthrosis;* from υδωρ, water, and αρθρον, a joint. *Hydrops articulorum.* Dropsy of a joint. White-swelling.

HY'DATID. *Hydatis;* from υδατις, a vesicle, and υδωρ, water. An encysted tumor, containing a transparent watery fluid. Also, a genus of intestinal worms, characterized by a body, wholly, or posteriorly, vesicular.

HYDATIDOCE'LE. *Hydatocele;* from υδατις, a hydatid, and κηλη, a tumor. A tumor formed of, or containing hydatids.

HY'DATOID. *Hydatoides;* from υδωρ, water, and ειδος, resemblance. Watery; resembling water.

HY'DERUS. Anasarca. Dropsy.

HY'DRAGOGUES. *Hydragoga;* from υδωρ, water, and αγω, I expel. Medicines which increase the secretions or excretions, so as to cause the removal of effused serum, or water, from any part of the body.

HYDRARGYRI ACETAS. Acetate of mercury.

Hydrargyri Ammo'nio-Chloridum. Ammonio-chloride of mercury.

Hydrargyri Bichloridi Liquor.—A solution of corrosive sublimate.

Hydrargyri Bichloridum. Bichloride of mercury.

Hydrargyri Bicyanidum. Bicyanide of mercury.

Hydrargyri Biniodidum. Biniodide of mercury.

Hydrargyri Binox'ydum. Binoxyd of mercury.

Hydrargyri Bisulphuretum. Bisulphuret of mercury. Cinnabar.

Hydrargyri Borussias. Hydrargyri cyanuretum.

Hydrargyri Bromidum. Bromide of mercury.

Hydrargyri Calx Alba. Hydrargyrum ammoniatum.

Hydrargyri Chloridum. Chloride of mercury. Protochloride or sub-chloride of mercury. Calomel.

Hydrargyri Chloridum Corrosivum. Corrosive chloride of mercury. Bichloride of mercury. Corrosive sublimate.

Hydrargyri Cyanuret'um. Bicyanide, cyanuret, or prussiate of mercury.

Hydrargyri Deuto-Iodidum. Binoxyd of mercury.

Hydrargyri Hyperoxydum. Hydrargyri oxydum rubrum.

Hydrargyri Iodidum. Iodide of mercury.

Hydrargyri Iodidum Rubrum.— Red iodide of mercury.

Hydrargyri Murias Corrosivus.— Corrosive sublimate.

Hydrargyri Murias Dulcis. Calomel.

Hydrargyri Nitras. Nitrate of mercury.

Hydrargyri Nitrico-Oxydum. Nitric oxyd of mercury.

Hydrargyri Oxydum Nigrum.— Black oxyd of mercury.

Hydrargyri Oxydum Rubrum. Red precipitate of mercury. Nitric oxyd of mercury.

Hydrargyri Oxydum Sulphuricum. See Hydrargyri Sulphas Flavus.

Hydrargyri Oxymu'rias. Corrosive sublimate.

Hydrargyri Prussias. Hydrargyri cyanuretum.

Hydrargyri Submurias. Calomel.

Hydrargyri Submurias Ammoniatum. Hydrargyrum ammoniatum.

Hydrargyri Sulphas Flavus.— Yellow sulphate of mercury. Subsulphate. Sulphate of mercury. Turpeth mineral.

Hydrargyri Sulphuret'um Nigrum. Black sulphuret of mercury. Æthiop's mineral.

Hydrargyri Sulphuretum Ru'brum. Red sulphuret of mercury. Bisulphuret of mercury. Cinnabar.

Hydrargyri Supermurias. Hydrargyri chloridum corrosivum.

HYDRARGY'RIA. Eczema mercuriale. Mercurial eczema, or eczema resulting from the use of mercury.

HYDRARGYRO-IODIDES. Compounds of iodide or cyanide of mercury with corresponding salts of potassium, sodium, &c.

HYDRAR'GYRUM. From υδωρ, water, and αργυρος, silver. Quicksilver. Mercury. A liquid metal, of a brilliant, bluish-white color.

Hydrargyrum Acetatum. Hydrargeri acetas.

Hydrargyrum Ammonia'tum. Ammoniated mercury.

Hydrargyrum Borussicum. Hydrargyri cyanuretum.

Hydrargyrum Calcinatum. Hydrargyri binoxydum.

Hydrargyrum Cum Creta. Mercury with chalk.

Hydrargyrum Cum Magnesia.— Mercury with carbonate of magnesia.

Hydrargyrum Hydrocyanicum.— Hydrargyri cyanuretum.

Hydrargyrum Muriaticum. Chloride of mercury. Protochloride of mercury. Calomel.

Hydrargyrum Phosphora'tum.— Phosphureted mercury.

Hydrargyrum Præcipitatum.— Hydrargyrum præcipitatum album.— Hydrargyrum ammoniatum.

Hydrargyrum Præcipitatum Cinereum. Hydrargyri oxydum nigrum.

Hydrargyrum Purificatum. Purified mercury.

Hydrargyrum Sacchara'tum.— Mercury triturated with lump sugar.

HYDRARGYRUM VITRIOLATUM. Hydrargyri sulphas flavus.

HYDRAR'THRUS. Hydarthrus.

HYDRAS'TIS CANADENSIS.—Yellow root. Tumeric root. Golden seal.

HY'DRATE. A compound in which water is chemically combined.

HY'DRATED. Chemically combined with water.

HYDRENCEPHALOCELE. Hydrocephalus, chronic.

HYDRENCEPH'ALOID. From υδωρ, water, and εγκεφαλος, the brain, and ειδος, resemblance. Resembling hydrocephalus. Spurious hydrocephalus, resulting from diseases of the bowels and the irritation of teething.

HYDRENCEPHALUS. Acute hydrocephalus.

HYDRENTEROCE'LE. From υδωρ, water, εντερον, intestine, and κηλη, a tumor. Intestinal hernia, with an enclosure of water in the sac.

HYDRIODATE. The old name for iodide.

HYDRIODIC ACID. A colorless, gaseous acid, consisting of one atom of iodine and one of hydrogen.

HYDRO'A. From υδωρ, water. A pustule containing a serous or watery fluid.

HYDROÆ'MIA. From υδωρ, water, and αιμα, blood. A state of the blood in which there is an excess of its watery constituents.

HYDROA'RION. From υδωρ, water, and ωαριον, ovarium. Dropsy of the ovarium.

HYDROBLEPH'ARON. From υδωρ, water, and βλεφαρον, eyelid. Watery swelling of the eyelids.

HYDROBROM'IC ACID. An acid consisting of one atom of hydrogen and one of bromine.

HYDROCÆLIAS. Ascites.

HYDROCAR'DIA. Dropsy of the pericardium.

HYDROCE'LE. From υδωρ, water, and κηλη, a tumor. A collection of serous fluid either in the membrane of the scrotum, or in the coats of the testicle and its vessels.

HYDROCELE CYSTATA. Encysted hydrocele of the spermatic chord.

HYDROCELE PERITONÆI. Ascites.

HYDROCELE SPINALIS. Hydrorachis.

HYDROCEPH'ALUS. From υδωρ, water, and κεφαλη, the head. Dropsy of the brain. Dropsy of the head. It is distinguished into *acute* and *chronic; external* and *internal*. When acute, it is attended by symptoms of inflammation of the brain. Chronic hydrocephalus generally commence at an early period of life, causes a distention of the brain and bones of the cranium, and generally proves fatal. When external, it consists in a mere infiltration of the subcutaneous cellular tissue. The internal variety, is said to be seated in the meninges and surface of the excephalon, and is termed *tubercular meningitis*.

HYDROCEPHALUS SPURIUS. Hydrencephalous disease.

HYDROCHLORATES. The old name for chlorides.

HYDROCHLO'RIC ACID. Muriatic acid.

HYDROCYAN'IC ACID. *Acidum hydrocyanicum*. Prussic acid.

HYDROCYS'TIS. From υδωρ, water, and κυστις, a bladder. A cyst filled with a serous fluid.

HYDRODER'MA. From υδωρ, water, and δερμα, the skin. Dropsy of the skin. Anasarca.

HYDRO-ENTERO-EPIPLOCE-LE. An entero-epiplocele, complicated with effusion of serous fluid in the hernial sac.

HYDRO-EPIPLOCE'LE. Omental hernia, with effusion of serous fluid in the hernial sac.

HYDRO-EPIPLOMPH'ALUM. Umbilical hernia, with an effusion of serous fluid in the sac.

HYDROFLU'ORIC ACID. A caustic, gaseous acid, obtained by the action of sulphuric acid on fluoride of calcium.

HY'DROGEN. *Hydrogenium;* from

υδωρ, water, and γενναω, I produce. So called, because it forms water in combination with oxygen. Inflammable air; an elementary body, known only in a gaseous state, without odor or color.

HYDROGEN, CARBURETED. Carbureted hydrogen.

HYDROGEN, OXYD OF. *Protoxyd of hydrogen.* Water.

HYDROGEN, PHOSPHURETED. A compound of hydrogen and phosphorus; a transparent colorless gas, of an offensive odor, and bitter taste.

HY'DROLATA. Distilled water.

HYDROL'OGY. *Hydrologia;* from υδωρ, water, and λογος, a discourse. A treatise on the properties and nature of water.

HYDROMAN'IA. From υδωρ, water, and μανια, mania. A propensity to drown oneself.

HYDROM'EL. *Hydromeli;* from υδωρ, water, and μελι, honey. Water sweetened with honey.

HYDROME'TER. *Hydrometrum;* from υδωρ, water, and μετρον, a measure. An instrument to determine the specific gravity of fluids.

HYDROME'TRA. From υδωρ, water, and μητρα, the womb. Dropsy of the womb.

HYDROM'PHALUM. From υδωρ, water, and ομφαλος, the navel. A tumor at the navel containing a serous fluid.

HYDROMYRIN'GA. From υδωρ, water, and *myringa* or *myrinx*, the membrana tympani. Dropsy of the tympanum.

HYDRONEPHRO'SIS. From υδωρ, water, and νεφρος, kidney. An accumulation of urine in the kidney, caused by obstruction of the uriniferous tubes.

HYDRONOSOS. From υδωρ, water, or ιδρως, sweat, and νοσος, a disease. Sudor anglicanus. Sweating sickness.

HYDRO'PATHY. *Hydropathia;* from υδωρ, water, and παθος, disease. The treatment of disease by the external and internal use of water.

HY'DROPERICAR'DIUM. *Hydropericardia;* from υδωρ, and περικαρδιον, the pericardium. Dropsy of the pericardium.

HYDROPHO'BIA. From υδωρ, water, and φοβεω, dread. Literally, dread of water. Canine madness. That peculiar and horrible disease consequent on the bite of a rabid animal.

HYDROPHTHAL'MIA. From υδωρ, and οφθαλμος, the eye. Dropsy of the eyeball.

HYDRO-PHYSOCE'LE. From υδωρ, water, φυση, wind, and κηλη, a tumor. Hernia, containing serum and gas.

HYDROP'IC. *Hydropicus;* from υδρωψ, the dropsy. One affected with dropsy. Relating to dropsy.

HYDROPICA. Hydragogues.

HYDROPLEURI'TIS. Pleurisy, attended with serous effusion. Acute hydrothorax.

HYDROPNEUMO'NIA. From υδωρ, water, and πνευμων, the lung. Serous infiltration of the cellular tissue of the lungs.

HYDROPNEUMOSAR'CA. From υδωρ, water, πνευμα, wind, and σαρξ, flesh. An abscess containing air, liquid and flesh, or generally, extravasated blood.

HYDRO'PNEUMO'THO'RAX.—From υδωρ, water, πνευμων, the lung, and θωραξ, the chest. Pneumothorax, complicated with serous effusion into the chest.

HY'DROPS. From υδωρ, water. Dropsy.

HYDROPS ABDOMINIS. Ascites.

HYDROPS ARTICULORUM. Hydarthrus.

HYDROPS CAPITIS. Hydrocephalus.

HYDROPS CEREBRI. Acute hydrocephalus.

HYDROPS CYSTICUS. A collection of serous fluid in a cyst or sac.

HYDROPS GENU. Dropsy of the knee.

HYDROPS GLOTTIDIS. Œdema of the glottis.

HYDROPS OCULI. Hydropthalmia.

HYDROPS OVARII. Dropsy of the ovarium.

Hydrops Palpebræ. Hydroblepharon.

Hydrops Pectoris. Hydrothorax.

Hydrops Pericardii. Hydropericardium.

Hydrops Pul'monum. Hydropneumonia.

Hydrops Sacci Lachrymalis. Fistula lachrymalis.

Hydrops Saccorum Pleuræ. Hydrothorax.

Hydrops Tubalis. Serous accumulation in the Fallopian tube.

HYDROPYR'ETOS. Sweating sickness.

HYDRORA'CHIS. From υδωρ, water, ραχις, the spine. Dropsy of the spine.

HYDROR'CHIS. Hydrocele.

HYDRORRHŒ'A. From υδωρ, water, and ρεω, I flow. Any chronic discharge of serous fluid. Also, Egyptian ophthalmia, with a profuse flow of tears.

HYDROSARCOCE'LE. From υδωρ, water, σαρξ, flesh, and κηλη, a tumor. Sarcocele, complicated with serous effusion of the tunica vaginalis.

HYDROSTAT'ICS. *Hydrostatica;* from υδωρ, water, and στασις, condition. That part of physics which treats of the weight and equilibrium of fluids.

HYDROTHO'RAX. From υδωρ, water, θωραξ, the chest. Dropsy of the chest. Effusion of serum in one or both of the cavities of the pleura.

HYDROTICA. Hydragogues.

HYDRO'TIS. Dropsy of the ear.

HYGIENE. From υγιεια, health. That part of medicine which has for its object the preservation of health.

Hygiene, Dental. That part of the dental branch of medicine which has for its object the preservation of the health of the teeth and the parts with which they are immediately connected, and as the organism generally, from the period of birth, is subject to hygienic influences, so also, are the teeth, gums and alveolar processes. But, as the health of one organ is dependent upon the manner in which all the rest perform their functions, it is impossible to lay down efficacious hygienic rules for the one, irrespective of the condition of the others. A system of hygiene, therefore, for one set or class of organs, to be complete, must, of necessity, have reference to the health of all the other organs of the body. For example, the state of the general health during the ossification of the teeth, determines the physical condition of these organs, and as a consequence, their susceptibility to morbid impressions; so also, does it affect their condition after they are formed, as well as that of the parts with which they are connected. Still, experience has established certain enlightened rules for the care of the teeth which have been found efficacious in counteracting many of the morbid influences to which they are exposed. Some of these it will be proper to notice, but in the few remarks which the author proposes to make upon this subject, he does not intend to enumerate the various morbid influences to which they are exposed. For information upon these subjects, the reader is referred to the various articles on the diseases of the teeth and gums, as treated of under their appropriate heads. Also, to the characteristics of the teeth, gums, salivary calculus, and the fluids of the mouth.

The particular care which the teeth, when well arranged and free from disease, require, to secure their preservation, is none other, to use the language of Desirabode, than that which should "form the daily 'toilette' of the mouth," and this should consist in thoroughly cleaning the teeth three or four times every day with a suitable brush and waxed floss-silk, as recommended by Dr. L. S. Parmly. The brush alone is not sufficient. The outer and inner surfaces of the teeth only can be kept clean by the brush, and for the removal of lodgments of alimentary substances from between them where they are most likely to be productive of pernicious ef-

fects, floss-silk, hemp or flax, is absolutely necessary.

If stains or discolorations appear on the enamel of the teeth, they should at once be removed by the use of some suitable tooth powder, or, what in many cases will be found more efficient and preferable, by an argillacious tooth-polisher, as advised by Dr. L. S. Parmly, or some other similar mechanical agent.

The use of the foregoing simple means should be commenced early, as soon as the temporary teeth begin to make their appearance through the gums, and regularly persevered in through life. During early childhood, and until the habit becomes so fully established as to be indespensable to comfort, it should be attended to by the nurse, or mother. See Teeth, temporary, importance of the preservation of.

Much more might be said upon this subject, but as almost every thing connected with it is treated of in other articles, it is not necessary to repeat here what is there stated in relation to it.

HYGIEN'IC. Relating to hygiene.

HYGROL'OGY. *Hygrologia;* from υγρος, humid, and λογος, a discourse. A treatise on the fluids of the body.

HYGRO'MA. From υγρος, humid. A tumor containing serous or some other humid matter, but not pus. Dropsy of the bursæ mucosæ.

HYGROM'ETER. *Hygrometrum;* from υγρος, humid, and μετρον, a measure. An instrument for measuring the humidity of the atmosphere.

HYGROM'ETRY. The art of measuring the dryness or humidity of the atmosphere.

HYGROPHOBIA. Hydrophobia.

HYMEN. From υμην, a membrane or pellicle. Also, the god of marriage. In *Anatomy*, a circular fold of mucous membrane which, partly, or wholly, closes the entrance to the vagina in virgins, and especially before menstruation, though it is said to be sometimes wanting.

HYMENÆ'A. The name of a genus of plants.

Hymenæa Courbaril and Martiana. The trees which are said to yield the gum anime.

HYMENO'DES. Membranous.—Urine filled with pedicles.

HYMENOL'OGY. *Hymenologia;* from υμην, a membrane, and λογος, a discourse. A treatise on the structure and functions of membranes.

HYMENOP'TERA. From υμην, a membrane, and πτερον, a wing. An order of insects, as the bee, wasp, &c., which have membranous wings.

HYMENOT'OMY. *Hymenotomia;* from υμην, a membrane, and τεμνω, I cut. The dissection of membranes. Also, the incision of the hymen.

HY'O-BA'SIO-GLOSSUS. The basio-glossus muscle.

HY'O-CHON'DRO-GLOS'SUS.—The hyo-glossus muscle.

HYO-EPIGLOT'TICUS. Belonging to the hyoides and epiglottis. Also, applied to the hyo-epiglottic ligament.

HYO-GLOS'SUS. A thin, broad, quadrilateral muscle, which has its origin from the body, cornu, and apendex of the os hyoides, and is inserted into the side of the tongue, forming the greater part of its bulk.

HYOI'DES. From the Greek letter υ, and ειδος, likeness, because it resembles the upsilon. The os hyoides.

Hyoides Os. A movable bone, convex anteriorly, situated in the soft parts of the neck, between the root of the tongue and larynx.

HYOSCY'AMUS. From υς, a swine, and κυαμος, a bean; so called because hogs eat it, or because the plant is hairy and bristly like a hog. The name of a genus of plants. Also, henbane.

Hyoscyamus Albus. White henbane.

Hyoscyamus Luteus. See Nicotiana Rustica.

Hyoscyamus Niger. Black henbane. Hyoscyamus.

HYO-THYROIDEUS. The thyro-hyoid muscle.

HYPER. Υπερ. Above; in excess.

HYPERACU'SIS. From υπερ, above, and ακουσις, hearing. Morbid sensibility of the organ of hearing.

HYPERÆ'MIA. From υπερ, above, and αιμα, blood. Sanguinous congestion. Local plethora.

HYPERÆSTHE'SIS. From υπερ, above, and αισθανομαι, to feel. Preternatural, or morbid increase of sensibility.

HYPERAPH'IA. From υπερ, in excess, and αφη, touch. Morbid acuteness of touch.

HYPERCRIN'IA. From υπερ, above, and κρινω, I separate. Morbid increase of the secretions.

HYPER'CRI'SIS. An excessive crisis, or critical evacuation.

HYPER'EMESIS. From υπερ, in excess, and εμεω, I vomit. Excessive vomiting.

HYPEREPHIDRO'SIS. From υπερ, above, and εφιδρωσις, excessive sweating. Immoderate sweating.

HYPERERETHIS'IA. From υπερ, in excess, and ερεθιζω, I excite. Excessive irritability.

HYPERGEN'ESIS. From υπερ, in excess, and γενησις, generation. That excess of formative power in any organ or tissue which occasions excessive development.

HYPERGEUS'TIA. *Hypergeusis;* from υπερ, above, and γευστις, taste. Excessive sensibility of the organ of taste.

HYPERHÆMATO'SIS. Inflammation.

HYPER'ICUM. The name of a genus of plants.

Hypericum Androsæmum. St. Peter's wort.

Hypericum Bacciferum. A tree of Brazil, the juice of the bark of which, in a dry state, resembles gamboge.

Hypericum Perfoliatum. St. John's wort.

HYPERINO'SIS. From υπερ, above, and ις, fibre. That condition of the blood in which there is an excess of fibrin, as in inflammation.

HYPERO'A. From υπερ, upon, and ωον, a high place. The palate.

HYPEROI'TIS. From *hyperoa*, the palate, and *itis*, denoting inflammation. Inflammation of the palate.

HYPERO-PHARYNGEUS. The palato-pharyngeus muscle.

HYPEROSPHRE'SIA. From υπερ, above, and οσφρησις, smell. Excessive acuteness of smell.

HYPEROSTO'SIS. From υπερ, upon, and οστεον, a bone. Exostosis.

HYPERSARCO'MA. From υπερ, above, and σαρξ, flesh. Hypersarcosis. An exuberant growth of flesh. A fleshy excrescence.

HYPERSARCO'SIS. Hypersarcoma.

HYPERSTHENI'A. From υπερ, above, and σθενος, power. Excess of vital power.

HYPERSTHE'NIC. *Hypersthenicus.* Active.

HYPERTON'IA. From υπερ, beyond, and τονος, tone. Excess of tone in the tissues of the body.

HYPER'TROPHY. *Hypertrophia;* from υπερ, in excess, and τροφη, nourishment. Excess of nourishment, and consequent increase of an organ or part, without changing the nature of its substance.

Hypertrophy of the Heart. A morbid increase of the muscular substance of the heart.

HYPERURE'SIS. Superabundant secretion of urine.

HYPINO'SIS. From υπο, under, and ις, fibre. A deficiency of fibrin in the blood, as in chlorosis, scorbutus, &c.

HYPNOBATA'SIS. The act of walking in one's sleep. Somnambulism.

HYPNOL'OGY. *Hypnologia;* from υπνος, sleep, and λογος, a discourse. A treatise on sleep. Also, that part of hygiene which relates to the proper regulation of sleeping and waking.

HYPNOT'IC. *Hypnoticus;* from υπνος, sleep. Medicines which induce sleep. Somniferous; narcotic.

HY'PO-. A prefix, from υπο, under, signifying deficiency.

Hypo. An abbreviation of hypochondriasis.

HYPOÆ'MA. From υπο, under, and αιμα, blood. Sanguinous effusion into the chambers of the eye, under the cornea.

HYPOCATHAR'SIS. From υπο, under, and καθαιρω, purgation. Gentle purgation; insufficient operation of a cathartic.

HYPOCHON'DRIAC. *Hypochondriasis;* from υπο, under, and χονδρος, a cartilage. Belonging to the hypochondria. Also, one affected with hypochondriasis.

Hypochondriac Region. In *Anatomy*, the space situated on each side below the short ribs.

HYPOCHONDRIA'SIS. *Morbus hypochondriacus.* Lowness of spirits; a low species of melancholy combined with dyspepsia, flatulence, and illusion of the senses.

HYPOCHON'DRIUM. The lateral and superior regions of the abdomen under the cartilages of the false ribs.

HYPOCRAN'IUM. From υπο, under, and κρανιον, the skull. A collection of pus between the cranium and dura mater.

HYPODERMAT'OMY. *Hypodermatomia;* from υπο, under, δερμα, the skin, and τομη, incision. The section of subcutaneous parts, as the tendons, muscles, &c.

HYPO'GALA. From υπο, under, and γαλα, milk. A collection of white humor in the chambers of the eye.

HYPOGAS'TRIC. *Hypogastricus.* Belonging to the hypogastrium.

Hypogastric Artery. The internal iliac artery.

Hypogastric Plexus. A plexus of nerves formed by the termination of the aortic plexus, and by the union of branches from the lower lumbar ganglia. It is situated at the lateral and posterior parts of the rectum, and the lower and back part of the bladder.

Hypogastric Region. Hypogastrium.

HYPOGAS'TRIUM. From υπο, under, and γαστηρ, the stomach. The lower part of the abdomen, extending from above the pubes to within three fingers' breadth of the navel. It is divided into three secondary regions, the *pubic*, or *central*, and two *lateral*, or *inguinal*.

HYPOGASTROCE'LE. A hernia in the hypogastrium, formed by the protrusion of intestine, or omentum through the lower part of the linea alba.

HYPOGLOS'SUS. From υπο, under, and γλωσσα, the tongue. That which is under the tongue, as the *hypoglossal nerves.*

HYPO'MIA. From υπο, under, and ωμος, the shoulder. The part subjacent to the shoulder.

HYPO'PION. *Hypopyon;* from υπο, under, and πυον, pus, because the pus is under the cornea. Applied to a small abscess between the laminæ of the cornea, and to collections of coagulable lymph, like pus, in the chambers of the eye.

HYPORIN'ION. From υπο, under, and ριν, the nose. The upper lip beneath the nose; also, the beard which grows upon it.

HYPOSPA'DIAS. *Hypospadia;*—from υπο, under, and σπαω, I draw. A malformation of the penis, in which the urethra opens at the base, instead of the apex.

HYPOSTA'PHYLE. Relaxation and elongation of the uvula.

HYPOS'TASIS. Sediment from the urine.

HYPOSTHE'NIC. Contro-stimulant.

HYPOTHE'NAR. From υπο, under, and θεναρ, the palm of the hand. A muscle on the inside of the hand. Also, the part of the hand opposite to the palm.

Hypothenar Eminence. The fleshy projection on the palm or surface of the hand, corresponding to the little finger.

Hypothenar Minimi Digiti. The flexor parvus minimi digiti muscle.

HYPOTHENAR MINOR METACARPUS. The abducto minimi digiti muscle.

HYPOTHENAR RIOLANI. The flexor parvus minimi digiti muscle.

HYPOTH'ESIS. A supposition invented to explain a phenomenon.

HYPOZO'MA. From υπο, under, and ζωννυμι, I bind round. A membrane or septum. The diaphragm.

HYSSOP. Hyssopus officinalis.

HYSSOP, HEDGE. Gratiola officinalis.

HYSSOPUS. The name of a genus of plants.

HYSSOPUS CAPITATUS. Wild thyme.

HYSSOPUS OFFICINALIS. Common hyssop.

HYSTERA. The uterus.

HYSTERAL'GIA. From υστερα, the uterus, and αλγος, pain. Pain in the uterus.

HYSTE'RIA. From υστερα, the uterus, from which the disease was supposed to originate. Hysterics. A morbid affection peculiar to the human female, occurring in paroxysms, and characterized by anxiety of mind, effusion of tears, palpitation at the heart, difficult breathing, a sense of suffocation, stupor, insensibility, agitation of the limbs and whole body, spasms, alternate fits of laughter and crying, with a discharge of frothy saliva, and sometimes delirium.

HYSTERIA CATALEPTICA. Catalepsy.

HYSTERICS. Hysteria,

HYSTERI'TIS. *Metritis.* Inflammation of the uterus.

HYSTEROCE'LE. Hernia of the uterus.

HYSTERO-CYSTOCE'LE. Hernia of the uterus, with displacement of the bladder.

HYSTERO-MALA'CIA. *Hysteromalacosis;* from υστερα, the uterus, and μαλαχια, softness. Softening of the uterus.

HYSTEROMAN'IA. Nymphomania.

HYSTERON'CUS. A tumor of the uterus.

HYSTEROPTO'SIS. Prolapsus uteri.

HYSTRICI'ASIS. A disease of the hairs, in which they stand erect.

I.

IAMA. Ιαμα. A cure; a medicine.

IAMATOL'OGY. Materia medica.

IATERIA. The curative art.

IATRALEIP'TICE. The treatment of disease by friction and applications to the skin.

IATRALEP'TES. From ιατρος, a physician, and αλειφω, I anoint. One who treats disease by friction and other external remedies.

IATRINE. A female practitioner of medicine.

IATROCHY'MIA. A physician of the chemical school—one who treats disease with chemical remedies.

IATROGNOM'ICA. From ιατρος, a physician, and γινωσκω, I know. Medical knowledge. A knowledge of medicine.

IATROS. Ιατρος. A physician.

ICE. *Glacies.* Frozen water.

ICE CAP. A bladder filled with pulverized ice and applied to the head.

ICELAND MOSS. Cetraria islandica.

ICELAND SPAR. Crystallized carbonate of lime.

ICHOR. Ιχωρ. *Sanies.* A thin, watery, and acrid discharge.

ICHOROUS. Of the nature of, or resembling, ichor.

ICHTHYOCOL'LA. From ιχθυς, a

fish, and κολλα, glue. Isinglass. Fish-glue. Pure gelatine. The dried swimming-bladder of *acipenser huso*, and other species of the sturgeon-genus.

ICHTHYOL'OGY. From ιχθυς, a fish, and λογος, a discourse. A treatise on fishes.

ICHTHYO'SIS. From ιχθυς, a fish, from the resemblance of the scales to those of a fish. A disease characterized by a rough, hard, thickened, and almost horny texture of the integuments of the body. It is called the fish-skin disease.

Ichthyosis Pellagra. See Pellagra.

Ichthyosis Seba'cea. Sebaceous ichthyosis. A morbid incrustation of sebaceous substance upon the surface of the skin.

I'CICA ARACOUCHI'NI. A tree of Guayana from which the aracouchini balsam is obtained.

ICOSAN'DRIA. *Icosandrous;* from εικοσι, twenty, and ανηρ, a man or husband. Hermaphrodite plants with flowers, having twenty or more stamina on the inner side of the petals.

ICTERITIA ALBA. Chlorosis.

IC'TERUS. From ικτερος, a yellow thrush. A disease characterized by yellowness of the skin and eyes, with white feces, high colored urine, languor, inactivity, loathing of food, acidity of the stomach, nausea and disturbed sleep.

Icterus Albus. Chlorosis.

Icterus Biliosus. This species is said to be occasioned by the inspissation of bile in the mouth of the ductus communis choledochus.

Icterus Calculosus. Gall-stone jaundice.

Icterus Gravidarum. The jaundice of pregnant females.

Icterus Hepaticus. Hepatic jaundice.

Icterus Infantum. The jaundice of infants. Yellow gum.

Icterus Spasmodicus. Spasmodic jaundice.

Icterus Nigra. Black jaundice.

Icterus Viridis. Green jaundice.

ICTODES FŒTIDUS. Dracontium fœtidum.

IC'TUS. From *ico*, to strike. A stroke or blow; a stroke of the sun, *coup de soleil*. Also, the pulsation of an artery, and the sting of a bee.

Ictus Solis. A stroke of the sun.

IDE'A. From ειδω, I see. The image of an object in the mind.

IDE, W. E. Author of a paper on the use of Arsenious Acid for Destroying the Nerves in Decayed Teeth, published in the American Journal of Dental Science, volume second.—Also, of a paper on whole sets of Artificial Teeth, published in the Dental Register of the West, volume first.

IDEOL'OGY. *Ideologia;* from ειδω, I see, and λογος, a discourse. A treatise on ideas. Intellectual philosophy.

IDIOPATH'IC. *Idiopathicus;* from ιδιος, peculiar, and παθος, an affection. A primary disease; one not dependent on any other.

IDIOSYN'CRASY. *Idiosyncrasia;* from ιδιος, peculiar, συν, with, and κρασις, a temperament. A constitution peculiarly susceptible to morbid impressions from certain agents, which would produce no effect on others of a different constitution.

ID'IOT. Foolish; stupid; one who is destitute of reason.

ID'IOTISM. *Idiocy.* Amentia.

IDIOTRO'PIA. Idiosyncrasy.

IGNA'TIA AMA'RA. The plant which yields St. Ignatius' bean.

IGNIS. Fire. The evolution of light and heat which results from combustion. Also, universal solvents, and the heat, redness and acrimony of disease.

Ignis Cal'idus. A hot fire. Violent inflammation about terminating in gangrene.

Ignis Columellæ. Erysipelas.

Ignis Fatuus. A luminous appearance sometimes seen at night over marshy grounds, produced by inflammable gasses, especially the phosphureted hydrogen.

Ignis Frigidus. Gangrene.

Ignis Persicus. Erysipelas. Also, anthrax.

Ignis Rotæ. Fire for fusion.

IGNI'TION. From *ignis*, fire. The act of catching fire, or of being heated to redness.

ILAPHIS. Arctium lappa.

IL'EAC PASSION. *Passio iliaca.* Colic seated in the ilium, and characterized by severe griping pain, vomiting of fecal matter, costiveness and spasms of the abdominal muscles.

ILEI'TIS. Inflammation of the ileum.

ILEO-. From *ileum*, the small intestine. Used as a prefix.

Ileo-Cœcal Valve. A valve at the junction of the ileum and cœcum.

Ileo-Colic Artery. The last branch from the concavity of the superior mesenteric artery, distributed to the ileum, cœcum, and commencement of the colon.

Ileo-Colitis. Enteritis.

Ileo-Lumbar Artery. A branch of the internal iliac artery, distributed to the psoas and iliacus muscles.

ILEUM. *Ileon.* From ειλεω, to turn about, from its convolutions. The last portion of the small intestines which terminate at the valve of the cœcum.

ILEUS. See Ileac Passion.

ILEX. The name of a genus of plants.

Ilex Aquifolium. The European holly.

Ilex Vomito'ria. Ilex cassin.

ILIA. The flanks. Also the small intestines.

ILIAC. *Iliacus;* from *ilia*, the flanks. Pertaining to, or connected with, the flanks.

Iliac Arteries. Arteries formed by the bifurcation of the aorta, and divided into *external* and *internal*. The external, after passing Poupart's ligament, is called the femoral artery.

Iliac Crest. The superior margin of the ileum.

Iliac Fossæ. There are two, the *internal* and *external*. The *internal* is a broad, shallow cavity in the inner surface of the os iliacum; the *external*, is on the external surface.

Iliac Mesocolon. A fold of the peritoneum, embracing the sigmoid flexure of the colon.

Iliac Region. The sides of the abdomen between the hips and the ribs.

ILI'ACUS. Iliac.

Iliacus Internus. A broad, triangular, and radiated muscle, situated on the inner surface of the ileum.

ILIN'GOS. Vertigo.

ILIO-. Words compounded with this term, signify parts connected with the ilium, as *ilio-abdominal, ilio-costal, ilio-sacral, ilio-lumbar*, &c.

IL'IUM OS. The haunch bone. The largest of the three bones which form the os innominatum.

ILLI'CIUM. The name of a genus of plants.

Illicium Ani'satum. The yellow-flowered aniseed tree.

Illicium Florida'num. Florida anise tree. Sweet laurel.

Illicium Parviflo'rum. A shrub, the bark of which resembles that of the sassafras.

ILLI'TIO. Anointing.

ILLO'SIS. From ωλος, the eye. Strabismus.

ILLUTA'TIO. From *in*, upon, and *lutum*, mud. Illutation. The act of besmearing any part of the body with mud.

IMBECILI'TY. *Imbecilitas.* Weakness, especially of intellect.

IMBER'BIS. Without beard.

IMBIBI'TION. *Imbibitio;* from *imbibere*, to drink, to imbibe. Endosemosis. The absorption of a liquid by a solid.

IM'BRICATE. *Imbricatus.* Imbricated; arranged like tiles on the roof of a house.

IMMOVABLE APPARATUS. An apparatus used in fractures and dislocations, consisting of bandages or supports, imbued with starch or gum,

which, after being applied, become solid.

IMMERSUS. The subscapularis muscle.

IMPAC'TION. *Impactio.* A fracture with projections and depressions of fragments of bone.

IMPAL'PABLE. From *in*, and *palpo*, to feel. A term generally applied to hard substances reduced to so fine a powder that their particles cannot be distinguished by the sense of touch. Powders for the teeth should usually be of this character.

IMPA'TIENS. The name of a genus of plants.

IMPATIENS BALSAM'INA. Balsam weed. Touch-me-not.

IMPEN'ETRABILITY. A property possessed by bodies of excluding from the space which they occupy all other bodies.

IMPERATO'RIA. The name of a genus of plants.

IMPERATORIA OSTRU'THIUM. Master-wort. The root is slightly aromatic, and has a bitterish, pungent taste.

IMPER'FECT. In *Botany*, flowers without anther or pistil, or both.

IMPERFORA'TION. *Imperforatio.* In *Anatomy*, a malformation, consisting in the absence of a natural opening or orifice of an organ, as of the mouth, anus, &c.

IMPER'MEABLE. *Impermeabilitas.* Capable of resisting the passage of fluids and gases.

IMPETI'GO. From *impetio*, I infest. A word which has received several significations, but at present principally used to designate a genus of cutaneous diseases, belonging to the order *pustulæ*, of Bateman. In Cullen it forms a genus in the class *cachexiæ*, and Sauvages employs it as a generic term, comprising under it, syphilis, scorbutus, rachitis, elephantiasis, lepra, scabies, tinea, scrofula, &c. The humid or running tetter, and of which, five species are enumerated. 1. *Impetigo figurata* 2. *Impetigo sparsa.* 3. *Impetigo erysipelatodes.* 4. *Impetigo scabida.* 5. *Impetigo rodens.*

IMPETUM FACIENS. Vital energy.

IM'PETUS. Force. The momentum of a moving body.

IMPLANTA'TION. The act of planting, setting, or fixing for the purpose of growth; applied sometimes to the transplantation of a tooth from the mouth of one person into a recently vacated socket in the mouth of another.

IMPLU'VIUM. An embrocation. Also, a shower bath.

IMPON'DERABLE. From *in*, not, and *pondus*, weight. Substances which produce no effect on the most delicate balance, as light, heat, and the electric fluid.

IMPOSTHUME. *Imposthuma.* An abscess.

IM'POTENCE. Weakness; loss of energy, but generally applied to a want of sexual vigor. It is also used synonymously with sterility.

IMPOV'ERISHED. Having become poor. In *Humoral Pathology*, thinness of the blood or any secretion from loss of some of its constituents. The blood, when pale and thin, is said to be impoverished.

IMPREGNA'TION. Fecundation.

IMPRES'SION OF THE MOUTH IN PLASTER OF PARIS. For the purpose of obviating the difficulty which is sometimes experienced in the procurement of a perfectly accurate transfer of the alveolar border, from impressions in wax, plaster has been substituted Drs. Westcott and Dunning, it is believed, were the first to employ the latter. The following is the manner of obtaining an impression in it. The plaster is mixed with water until a thick batter is formed; this is poured into a wax-holder or a curved box, with high walls, fitting loosely over the alveolar border, the posterior or open extremities being previously closed with wax softened by the fire, or in hot water. The instant the plaster begins to congeal, it is put

into the mouth and pressed carefully against the alveolar border until a sufficiently deep impression is made in the plaster, and so much of it as may be forced out on either side should be immediately pressed up against the parts with the forefinger of one of the hands of the operator. This done, it should be permitted to remain in the mouth two or three minutes, or long enough for the plaster to harden, before it is removed; and in doing this, great care is necessary to prevent cracking or injuring the impression. Should it adhere with great tenacity to the mouth, one side should first be slightly detached, and then the other, and if it cannot be readily loosened at one point, another and another should be tried until it is made to yield, when the whole may be easily removed, the edges trimmed, and after it has become dry, and before being used, it should be smeared with oil or varnished.

Impression of the Mouth in Wax. The manner of procuring a wax impression is as follows: Fill a frame of suitable dimensions, with white or yellow wax, previously softened in warm water, or by a fire, until it is of the consistence of dough or soft putty, then put it in the mouth with the wax facing the jaw from which a transfer is to be obtained, and press it carefully against it until a sufficiently deep indentation is made, or the entire alveolar ridge and any teeth which may remain is embedded in it. The wax-holder or frame should be held steadily in one hand, and the pressure applied equally with the other to every part of it. This done, the wax around the edges should be carefully pressed against the gum, and when applied to the upper jaw, to the roof of the mouth. The whole should now be removed, and in doing this, considerable care is necessary to prevent the shape of the impression from being altered by the corners of the mouth and teeth. Before being filled with plaster it should be smeared with oil.

IMPU'BER. *Impubis;* from *in*, not, and *pubertas*, puberty. Not of the age of pubetry.

IMPULSE, DIAS'TOLIC. Backstroke of the heart. The short stroke felt at the end of each pulsation.

IMRIE, WILLIAM. Author of the Parents' Dental Guide; a treatise on the diseases of the teeth and gums, from infancy to old age, with observations on Amalgams, Cements, &c., and remarks on the construction of artificial teeth. London, 1835.

INANI'TION. *Inanitio;* from *inanire*, to empty. Exhaustion from want of food. Emptiness.

INCANDES'CENCE. The bright light emitted by heated bodies.

INCANTA'TION. *Incantatio;* from *in*, and *cantare*, to sing. The cure of disease by charms.

INCARCERA'TION. *Incarceratio;* from *in*, in, and *carcer*, prison. Applied to hernia when the neck of the sac is so constricted as to prevent its easy reduction.

INCAR'NATION. From *in*, and *caro*, flesh. Granulating, filling up with flesh.

INCAR'NANS. Medicines which were supposed to promote the formation of flesh.

INCEN'DIUM. From *incendere*, to burn. A burning fever, or any burning heat, or inflammation.

INCERNIC'ULUM. From *incernere*, to sift. A strainer or sieve. Also, the pelvis of the kidney.

INCINERA'TION. *Incineratio;*— from *incinero*, to reduce to ashes. The reduction of any substance to ashes by combustion.

INCIS'ION. *Incisio.* A division of soft parts made with a sharp-edged instrument.

INCISIVUM FORAMEN. Foramen incisivum. A canal, single below and double above, a little behind the incisor teeth, opening on the median line.

INCISI'VUS. Relating to the incisor teeth.

Incisivus Inferior. Levator labii inferioris.

Incisivus Lateralis. Levator labii superioris alæque nasi.

Incisivus Medius. Depressor labii superioris alæque nasi.

INCISOR TEETH. The four front teeth in each jaw, are called *incisores*, from *incido*, to cut, because they cut the food. They occupy the central part of each maxillary arch. The crown or body of each is wedge shape; the anterior surface is convex and smooth—the posterior is concave, and presents a tubercle near the neck; the two surfaces come together and form a cutting edge. In a front view the edge is generally the widest part; diminishing towards the neck, it continues narrowing to the extremity of the root.

The roots are all single, of a conical shape; laterally, slightly flattened. The enamel is thicker before than behind, and behind than at the sides.

The incisores of the upper jaw are larger than those of the lower. The central incisores of the upper jaw are about one-third wider than the laterals of the same. The lateral incisores of the lower jaw are generally a little wider than the central, though the difference in width is never so considerable as to be very perceptible.

INCISO'RIUM. A table on which a patient is placed for an operation.

INCI'SED. Cut.

INCOMPAT'IBLE. Substances which cannot be prescribed together, on account of having a chemical action on each other.

INCON'TINENCE. *Incontinentia;* from *in*, and *contineo*, I contain. Inability to retain the natural evacuations. Abuse of the sexual appetite.

INCORPORA'TION. *Incorporatio;* from *in*, and *corpus*, a body. The thorough admixture of various substances so as to give them a uniform consistence.

INCRAS'SANS. From *incrasso*, to make thick. Medicines which were formerly believed to have the property of thickening the fluids.

INCREMEN'TUM. Augmentation; increase; growth.

INCRUSTA'TION. *Incrustatio;* from *in*, and *crusta*, a crust. The formation of a crust on the surface of a body, or over any substance. Also, the crust itself.

INCUBA'TION. *Incubatio;* from *incubare*, to lie upon. In *Natural History*, the period a bird sits upon her eggs before the young are produced. In *Medicine*, the period that elapses from the time of the introduction of a morbific agent into the body before the invasion of disease.

IN'CUBUS. From *incubare*, to lie upon. The nightmare.

INCURABLE. A term applied, in *Pathology*, to diseases not susceptible of cure.

IN'CUS. An anvil. The name of one of the bones of the ear.

INDEX. From *indicare*, to point out. The forefinger.

INDIAN ARROW ROOT. Maranta.

Indian Cress. Tropæolum majus.

Indian Date-Plumb. Diospyros lotus.

Indian Fig. Cactus opuntia.

Indian Pink. Spigelia marilandica.

Indian Physic. Gillenia trifoliata.

Indian Rubber. Caoutchouc.

Indian Tobacco. Lobe liainflata.

Indian Turnip. Arum triphyllum.

INDIANA RADIX. Ipecacuanha.

INDICA CAMOTES. The potato.

IN'DICANT. *Indicans;* from *indicare*, to point out. Pertaining to an indication.

INDICATING DAYS. Critical days.

INDICA'TION. *Indicatio.* The manifestation afforded by disease of what ought to be done.

INDICA'TOR. Extensor proprius indicis; an extensor muscle of the forefinger.

INDIG'ENOUS. *Indigena.* That

which is peculiar to any country, in opposition to exotic.

INDIGES'TION. Dyspepsia.

INDIGO. The blue coloring matter obtained from the *indigofera tinctoria;* anil, or the indigo plant.

INDIGOF'ERA. The name of a genus of plants.

INDIGOFERA TINCTORIA. *Indigofera anil.* The plant from which much of the indigo is obtained.

IN'DOLENT. *Indolens;* from *in,* privative, and *dolere,* to be in pain. Without pain. Applied to tumors which are attended with but little pain.

INDU'RANS. From *induro,* to harden. Medicines which are supposed to harden the parts to which they are applied.

INDURA'TION. *Induratio.* A hardened and thickened condition of a part resulting from inflammation.

INE'BRIANTS. Intoxicating substances.

INEQUAL'ITY. Unevenness; alternate rising and falling of a surface: applied in *Dental Surgery,* to malformed teeth, and to decayed teeth which present an asperated surface.

INER'TIA. From *iners,* slothful. A passive condition of parts. Also, inactivity.

IN'FANCY. *Infantia.* Early childhood, generally including the age from birth to the seventh year.

INFAN'TICIDE. From *infans,* a child, and *cœdere,* to kill. The murder of a young child.

INFANTILE TEETH. The temporary or milk teeth.

INFEC'TION. See Contagion.

IN'FERUS. Inferior.

INFILTRA'TION. *Infiltratio;* from *filtrare,* to filter. Effusion. The accumulation of a fluid in the cells of an organ or texture.

INFIR'MARY. *Infirmarium.* A hospital, and generally, where patients are not furnished with beds.

INFLAM'MABLE. *Inflammabilis;* from *inflammo,* to burn. Such bodies as inflame with facility; easily enkindled; susceptible of combustion.

INFLAMMABLE AIR. Hydrogen gas.

INFLAMMABLE AIR, HEAVY. Carbureted hydrogen.

INFLAMMA'TION. *Inflammatio;* from *inflammare,* to set on fire. A state characterized by redness, heat, tension, swelling and pain, and terminating by resolution, suppuration, mortification, adhesion, effusion or induration.

INFLAMMATION OF THE BLADDER.—Cystitis.

INFLAMMATION OF THE BRAIN. Encephalitis.

INFLAMMATION OF THE BREAST.—Mastitis.

INFLAMMATION OF THE CHOROID MEMBRANE. Iritis.

INFLAMMATION OF THE EYE. Ophthalmitis.

INFLAMMATION OF THE INTESTINE.—Enteritis.

INFLAMMATION OF THE IRIS. Iritis.

INFLAMMATION OF THE KIDNEY.—Nephritis.

INFLAMMATION OF THE LINING MEMBRANE OF A TOOTH. See Endodontitis.

INFLAMMATION OF THE LIVER. Hepatitis.

INFLAMMATION OF THE LUNGS.—Pneumonitis.

INFLAMMATION OF THE MOUTH. See Inflammation of the Mouth, common diffused.

INFLAMMATION OF THE MOUTH, COMMON DIFFUSED. This is so fully and accurately described by Dr. Wood in his treatise on the Practice of Medicine, that we shall quote his remarks upon the subject. He says, it "appears in reddened somewhat elevated patches, or occupies large portions of the surface, sometimes extending apparently over the whole mouth. In some cases, it is superficial, with little or no swelling, and may be designated as *erythematous;* in others, it occupies the whole thickness of the membrane, extending sometimes to the sub-mucous tissue, and even to neighboring structures, as the

sub-lingual and sub-maxillary glands, and the absorbent glands of the neck, and occasions considerable tumefaction in all these parts. In the erythematous form, it is characterized by redness, a sense of heat, and sometimes considerable tenderness, but is not usually attended with acute pain; when deeper in the tissue, it is often very painful. Portions of the epithelium sometimes become opaque, giving an appearance of whiteness in streaks or patches. Occasionally this coating is elevated in blisters, or even detached like the cuticle from the skin in scalds. Superficial ulcerations not unfrequently occur, which may spread over considerable portions of the membrane. In certain states of the constitution, the ulcerative tendency is very strong, and deep and extensive sores occur, which are sometimes attended with gangrene. There is often a copious flow of saliva; though, in some instances, this secretion, as well as that of the mucous follicles, is checked, and the mouth is clammy or dry. The sense of taste is usually more or less impaired, and speech and mastication are often difficult and painful. When the tongue is affected, its surface is in general first covered with a whitish fur, through which the red and swollen follicles may often be seen projecting. This fur sometimes breaks off, leaving the surface red, smooth and glossy, with here and there prominent follicles, and very sensitive to the contact of even mild substances; or the surface may be dry, hard and gashed, with painful fissures. When the gums are involved, they swell, and rise up between the teeth, around the necks of which they not unfrequently ulcerate. In some rare instances, this ulceration is very obstinate, and does not cease until it has extended into the sockets, and destroyed altogether the connections of the teeth, which become loosened and fall out, after which the gum will heal. Ordinary stomatitis is seldom so violent as to induce symptomatic fever.

"*Causes.*—The form of inflammation of the mouth above described, is more frequently a complication of other diseases than an original affection. When of the latter character, it is generally caused by the direct action of irritant bodies, as by scalding drinks, acrid or corrosive substances taken into the mouth, or unhealthy secretions from decayed teeth. The sharp edge or spicula of a broken tooth sometimes gives rise to much inflammation, and even deep and obstinate ulcers, especially of the tongue. The tartar which collects about the necks of the teeth often keeps up a state of chronic inflammation of the gums, which sometimes ends in destructive ulceration. Stomatitis may also result from the reaction which follows the long continued contact of very cold substances, such as ice, with the interior of the mouth. It sometimes proceeds from the propagation of inflammation from the fauces, and is a frequent consequence of gastric irritation, produced by sour or acrid matter in the stomach. Drunkards seem peculiarly predisposed to it. Of the constitutional causes none are so frequent as the state of fever, which, whatever may be its peculiar character, is very apt to affect the mouth, and not unfrequently occasions inflammation.

"*Treatment.*—In the acute stage, little treatment is required. In some very severe cases, in which the neighboring parts are involved, leeches beneath the jaw or over the parotid may be advisable. But, in general, cooling and demulcent liquids locally, magnesia or one of the saline cathartics internally, with a soft and spare diet, from which meat is excluded, constitutes all that is requisite. When the inflammation results from some corrosive substance taken into the mouth, almond oil spread over the surface will be found a useful application. In the latter stages, and in chronic cases, astringent washes, such as weak solutions of acetate of lead, sulphate of zinc, and alum, may be advan-

tageously applied; and, if ulcers exist, their surface may be touched with a very strong solution of sulphate of zinc, sulphate of copper, or nitrate of silver, care being taken that the application does not extend beyond the limits of the ulcer. In cases accompanied with gangrene, washes of chloride of soda, chloride of lime, or aqueous solution of creasote may be used. Should the inflammation depend upon the condition of the teeth, whether upon sharp edges or points, wounding the adjacent parts, or upon acrid secretions, or the deposition of tartar about the neck of the tooth, care should be taken to correct the evil."

Inflammation of the Periosteum of a Tooth. Odontitis. Dental Periostitis. See Odontalgia.

Inflammation of the Peritoneum. Peritonitis.

Inflammation of the Pleura. Pleuritis.

Inflammation of the Pulp of a Tooth. See Odontalgia.

Inflammation of the Retina. Retinitis.

Inflammation of the Stomach.—Gastritis.

Inflammation of the Testicle.—Orchitis.

Inflammation of the Urethra.—Urethritis.

Inflammation of the Uterus.—Hysteritis.

Inflammation of a Vein. Phlebitis.

INFLAM'MATORY. *Inflammatorious.* Of the nature of inflammation; tending to excite heat and inflammation.

Inflammatory Fever. Synocha.

INFLA'TIO. Emphysema. Colica flatulenta. A windy swelling.

INFLA'TUS. Inflated.

INFLEX'US. Bent inward.

INFLUEN'ZA. The Italian word for influence. Epidemic catarrh is so termed, because it was supposed to be the result of a peculiar atmospherical influence.

Influenza Europæa. Influenza.

INFRA-ORBITAR. Sub-orbitar.

Infra-Orbitar Foramen. A foramen immediately below the orbit.

Infra-Scapularis. The sub-scapularis muscle.

Infra-Spinatus. From *infra*, beneath, and *spina*, a spine. A muscle of the humerus.

INFUNDIB'ULUM. From *in*, and *fundere*, to pour out. A funnel. In *Anatomy*, a name given to parts which resemble a funnel.

Infundibulum of the Brain. A depression or canal leading from the third ventricle, to the petuitary gland.

INFU'SION. *Infusio;* from *infundere*, to pour in. In *Pharmacy*, the pouring of a hot or cold fluid upon substances for the purpose of extracting their medicinal properties. Also, the product itself. In *Surgery*, the introduction of medical substances into the veins.

INFU'SUM. An infusion.

Infusum Anthem'idis. Infusion of chamomile.

Infusum Armora'ciæ Compos'itum. Compound infusion of horse-radish.

Infusum Auran'tii Compos'itum.—Compound infusion of orange-peel.

Infusum Buchu. Infusion of buchu.

Infusum Calum'bæ. Infusion of Columba.

Infusum Caryophyl'li. Infusion of cloves.

Infusum Cascaril'læ. Infusion of cascarilla.

Infusum Cat'echu Compos'itum.—Compound infusion of catechu.

Infusum Cincho'næ. Infusion of cinchona.

Infusum Cuspa'riæ. Infusion of cusparia.

Infusum Digita'lis. Infusion of digitalis.

Infusum Eupato'rii Perfoliati.—Infusion of thoroughwort.

Infusum Gentia'næ Compos'itum. Compound infusion of gentian.

Infusum Humu'li. Infusion of hops.

Infusum Krame'riæ. Infusion of rhatany.

Infusum Lini. Infusion of flaxseed.

Infusum Lini Compositum. Infusion of flaxseed.

Infusum Menthæ Simplex. Infusion of spearmint.

Infusum Menthæ Compositum.—Compound infusion of mint.

Infusum Parei'ræ. Infusion of pareira brava.

Infusum Pruni Virginianæ Infusion of wild-cherry bark.

Infusum Quassiæ. Infusion of quassia.

Infusum Rhei. Infusion of rhubarb.

Infusum Rosæ Compositum. Compound infusion of roses.

Infusum Sarsaparil'læ. Infusion of sarsaparilla.

Infusum Scopa'rii. Infusion of broom.

Infusum Sennæ. Infusion of senna.

Infusum Sennæ Cum Tamarin'dis. Infusion of senna with tamarinds.

Infusum Serpenta'riæ. Infusion of Virginia snake-root.

Infusum Simarou'bæ. Infusion of simarouba.

Infusum Spigel'iæ. Infusion of pinkroot.

Infusum Taba'ci. Infusion of tobacco.

Infusum Ulmi. Infusion of slippery elm bark.

Infusum Valerian'æ. Infusion of valerian.

Infusum Zingibe'ris. Infusion of ginger.

INGES'TA. From *ingero*, to throw in. The aliments introduced into the body.

INGLU'VIES. Gluttony. Also, the crop of birds.

INGOLSELLER. On the Golden Tooth of the Silesian Boy, by. Leipsic, 1695.

INGRE'DIENT. From *ingrediens*, entering into. That which enters into, or is a component part of, a compound or mixture. Applied to medicinal compounds.

INGUEN. The groin.

IN'GUINAL. *Inguinalis;* from *inguen*, the groin. Belonging, or pertaining to, the groin.

Inguinal Artery. The external iliac immediately beneath the crural arch.

Inguinal Glands. The lymphatic glands in the groin.

Inguinal Ligament. Poupart's ligament.

INHALA'TION. The drawing in of vapors with the breath.

Inhalation of Ether. See Chloroform.

Inhalation of Chloroform. See Chloroform.

INHALER. An instrument used for the inhalation of ether, chloroform, and other vapors.

INHE'RENT. That which belongs, adheres, or is united to, a thing.

INHUMA'TION. *Inhumatio;* from *inhumo*, I put into the ground. The burying of the dead.

INJEC'TION. *Injectio;* from *injicere*, to throw into. The introduction, by means of a syringe or other instrument of a medicated liquor into a natural or preternatural cavity of the body. When thrown into the rectum, injections are called enemata.

IN'NATE. *Innatus;* from *in*, and *nascor*, to be born. Inborn; not acquired.

Innate Diseases. Diseases with which the infant is born. Congenital.

INNERVA'TION. *Innervatio;* from *in*, and *nervus*, a nerve. The vital operation by which a part or organ is supplied with nervous influence.

INNOMINATA ARTE'RIA. The first branch given off by the arch of the aorta.

INNOMINATI NERVI. The nerves of the fifth pair.

INNOMINA'TUM. From *in*, privative, and *nomen*, a name. Without a name. Applied to some parts of the body.

Innominatum Foramen. A foramen in the petrous portion of the temporal

bone through which the vidian nerve passes.

INNOMINATUM Os. A large, irregular bone, which forms the anterior and lateral walls of the pelvis. It is divided in the young subject into three portions, the iliac, ischiatic, and pubic.

INOCULA'TION. *Inoculatio.* The artificial introduction of a poison into any part of the body, especially the variolus or vaccine virus.

INOCULATION, Cow-Pox. Vaccination.

INORGAN'IC. From *in*, without, and *organum*, an organ. Having no organs. In *Chemistry*, minerals and other bodies which are not derived from organic products.

INOSCULA'TION. *Inosculatio;*—from *in*, and *osculum*, a little mouth. The union of the extremities of vessels. Anastomosis.

INSALIVA'TION. *Insalivatio.* The admixture of saliva with food during mastication. The process of mastication, and the presence of food in the mouth, increases the secretion of this fluid, as does also a desire for, or the odor of, savory alimentary substances. The salivary glands being liberally furnished with nerves and blood-vessels, are easily excited and readily provided with an abundant supply of viscous fluid, which flows in greater quantity when the food is acrid and stimulating, than when it is of a less exciting nature. It is estimated that from five to six ounces is secreted at a meal. This, together with the fluid secreted by the labial, palatine and sub-lingual mucous glands, as well as the moisture from the exhalent arteries of the mouth, not only contribute to lubricate the buccal cavity, but mix with, dissolve, and bring together the divided alimentary particles; assist in forming them into a pultacious mass, and to produce on them the first change which they undergo in the process of digestion.

INSALU'BRIOUS. Unhealthy.

INSAN'ITY. *Insanitas.* Madness; mental alienation.

INSEC'TA. Insects; a class of invertebrata, belonging to the *sub-regnum, articulata* of Cuvier.

INSENSIBIL'ITY. *Anæsthesia.* Loss or absence of sensation.

INSER'TION. *Insertio.* In *Anatomy* and *Botany*, the intimate connection of one part or organ to another, as the insertion of a ligament or muscle into a bone; of a corolla, stamen, pistil, leaf or ovary, into any part of a plant. In *Dental Surgery*, the engrafting of an artificial tooth to the root of a natural one.

INSERTION OF AN ARTIFICIAL TOOTH. See Pivot Tooth, manner of insertion.

INSID'IOUS. In *Pathology*, diseases which do not at first appear as formidable as they are, and which are apt to escape attention.

INSOLA'TION. *Insolatio;* from *in*, and *sol*, the sun. Exposure to the direct rays of the sun, which is frequently a source of disease.

INSOLUBIL'ITY. *Insolubilis.* The property of a solid which prevents it from not dissolving when immersed in a fluid.

INSOM'NIA. From *in*, without, and *somnus*, sleep. Sleeplessness, which is usually a sign of disease.

INSPIRA'TION. *Inspiratio;* from *in*, in, and *spiro*, I breathe. The act by which the air is drawn into the lungs.

IN'SPIRATORY. A name given to certain muscles, which, by their contraction, enlarge the chest, and cause inspiration.

INSPISSA'TION. From *in*, and *spissatus*, thickened. The evaporation of a juice or decoction to a thick consistence.

INSTEP. The most elevated part of the top of the foot.

INSTILLA'TION. *Instillatio.* The act of pouring out a liquid, drop by drop.

INSTINCT. *Instinctus.* Inwardly moved. That power of the mind by which animals are spontaneously led, or directed, to do whatever is necessary for the preservation of the individual, or the continuation of the species.

INSTITUTES OF MEDICINE.—The theory and practice of medicine.

INSTRU'MENT. *Instrumentum.*—Any mechanical agent employed in the operations of any of the branches of manual medicine.

Instruments for Cleaning Teeth. The instruments employed for this purpose are constructed with variously shaped points to suit the peculiar views of the operator, both with regard to convenience and efficiency. They consist of steel stems, fixed in handles; with triangular-shaped points, more or less curved, with sharp edges. Every dentist requires from ten to twelve instruments of this description, and they should be so shaped that they may be applied to any part of the surface of the crowns of the teeth.

Instruments for Enlarging the Canal in the Root of a Tooth. The burr, flat drill, and broach, are the instruments usually employed for this purpose.

Instruments for the Extraction of Teeth. Those most commonly employed in this operation are forceps, the key of Garengeot, the punch, elevator, hook, and conical screw.

Instruments for Filling Teeth. See Filling Teeth.

Instruments for Removing Dental Caries. See Dental Excavators, Drill, burr and flat.

INSUFFLA'TION. *Insufflatio;* from *in* and *suffla*, to blow. The injection of a gaseous fluid into a cavity of the body.

IN'SULA CER'EBRI. The intermediate lobe of the brain.

INSULA'TION. From *insula*, an island. In *Electricity*, the state of the body when surrounded by non-conductors.

IN'TEGER. Entire.

INTEG'UMENT. *Integumentum;* from *in*, and *tegere*, to cover. That which serves to cover or envelop. In *Anatomy*, the skin and cellular tissue is the common integument.

IN'TELLECT. *Intellectus;* from *intelligere*, to understand. The aggregate of the faculties of the mind. Understanding.

INTEM'PERANCE. From *in*, negation, and *temperare*, to temper. Immoderate indulgence of the appetite, especially for alcoholic drinks.

INTEN'SITY. Activity, violence.

INTEN'TION. *Intentio;* from *in*, and *tendere*, to stretch. In *Surgery*, the cicatrization of a wound without suppuration.

INTER-. A prefix, signifying, between, intermediate.

INTERARTIC'ULAR. Any thing between the articular extremities of bones.

INTERCA'DENCE. Applied to a supernumerary beat of the pulse.

INTERCEL'LULAR. Between the cells.

INTERCLAVIC'ULAR. Applied to a ligament which passes from one clavicle to the other.

INTERCAL'ARY DAYS. The days which occur between those that are critical. Also, the days which intervene between the paroxysms of intermittent fever.

INTERCOS'TAL. *Intercostalis.* Applied to muscles and vessels situated between the ribs.

Intercostal Arteries. The arteries which run between the ribs.

Intercostal Muscles. The muscles which extend from the inferior edge of each rib above to the superior edge of each rib below. They constitute eleven pair of double muscles and are distinguished into *external* and *internal*.

Intercostal Nerves. The great sympathetic, and twelve branches from the anterior branches of the dorsal nerves, which are distributed to the muscles of the walls of the thorax and abdomen.

Intercostal Spaces. The intervals between the ribs.

Intercostal Veins. The veins which accompany the intercostal arteries.

INTERCUR'RENT. *Intercurrens;*

from *inter*, between, and *currere*, to run. Diseases which occur at different seasons, or that do not belong to any particular season. Also, a disease which occurs during the progress of another disease.

INTER'CUTANEOUS. Sub-cutaneous.

INTERDEN'TIUM. The spaces between the teeth of the same order.

INTERMAX'ILLARY. *Intermaxillaris;* from *inter*, between, and *maxilla*, a jaw. Situated between the jaws.

INTERMAXILLARY BONE. A portion of bone wedged in between the superior maxillary bones of the human fetus, found in the mammalia.

INTERME'DIARY. From *inter*, between, and *medius*, middle. Lying between two bodies; in the middle; interposed.

INTERMIS'SION. *Intermissio;*— from *inter*, between, and *mittere*, to put or send. The intervals which occur between two paroxysms of an intermittent fever, or disease, or between two pains.

INTERMIT'TENT. A disease in which there are intermissions, or one which ceases and returns after stated or uncertain intervals.

INTERMITTENT FEVER. A fever consisting of paroxysms which subside and return at regular periods.

INTERNUS AURIS. The tensor tympani muscle of the ear.

INTERMUS'CULAR. That which intervenes between two muscles.

INTEROS'SEI MANUS. The small muscles situated between the metacarpal bones, extending from the bones of the carpus to the fingers.

INTEROSSEI PEDIS. The small muscles situated between the metatarsal bones.

INTEROS'SEOUS. From *inter*, between, and *os*, a bone. Situated between bones.

INTEROSSEOUS ARTERIES. Small branches from the dorsalis carpi arteries, distributed to the interosseous ligament of the forearm and between the interosseous muscles.

INTEROSSEOUS NERVE. A branch from the median nerve which passes over the interosseous ligament of the forearm.

INTERSCAP'ULAR. *Interscapularis.* That which is between the shoulders.

INTERSCAPU'LIUM. The spine of the scapula.

INTERSEP'TUM. From *inter*, between, and *septum*, a partition. The septum narium; also, the uvula.

INTERSEPTUM VIRGINALE. The hymen.

INTERSPI'NAL. *Interspinalis;*— from *inter* between, and *spina*, the spine. Applied to muscles, nerves, &c. situated between the spinous processes.

INTERSPINA'LES. The portions of muscles situated between the spinous processes of the *cervical*, *dorsal* and *lumber vertebræ*. They are distinguished by the names, *interspinales colli*, *dorsi*, *et lumborum*.

IN'TERSTICE. From *inter*, between, and *sto*, I stand. An interval; a space between two organs.

INTERSTI'TIAL. Relating to, or containing interstices, as *interstitial matter*, *interstitial absorption*, &c.

INTER-TRANSVERSA'LES. The small quadri-lateral muscles situated between the transverse processes of the vertebræ of the neck and loins.

INTERTRI'GO. From *inter*, between, and *tero*, to rub. Excoriation or chafing of the skin about the anus, groins, and other parts of the body.

INTERVER'TEBRAL. That which is situated between the vertebræ.

INTERVERTEBRAL CARTILAGES. The cartilages between the vertebræ.

INTES'TINAL. Implicating, or belonging to, the intestines.

INTESTINA'LIA. Intestinal worms.

INTES'TINE. *Intestinum;* from *intus*, within. The convoluted membranous and muscular tube extending from the stomach to the anus. It is dis-

tinguished into small and large. The former include the *duodenum*, *jejunum* and *ileum*; and the latter, the *cœcum*, *colon* and *rectum*.

INTOL'ERANCE. That condition of the body which indicates the impropriety of using certain remedies, as intolerance of blood-letting, &c.

INTOXICA'TION. *Intoxicatio*;—from *in*, and *toxicum*, a poison. Ebriety; the effect of alcoholic liquor taken in excess.

INTRIN'SIC. *Intrinsecus*; from *intra*, within, and *secus*, towards. Inherent, not adventitious. In *Anatomy* and *Pathology*, organs and diseases situated internally.

INTRO'ITUS. Entrance; act of entering.

INTROMIS'SION. *Intromissio*;—from *intro*, within, and *mitto*, I send. The introduction of one body, or organ into another.

INTROSUSCEP'TION. *Introsusceptio*. See Intussusception.

INTUMES'CENCE. *Intumescentia*; from *intumescere*, to swell. Increase of size in a part. Swelling.

INTUS'SUSCEP'TION. *Intussusceptio*; from *intus*, within, and *suscipio*, I receive. In *Physiology*, nutrition; the mode of increase peculiar to organized bodies. In *Pathology*, the introduction of a portion of intestine into that which precedes or follows it.

IN'ULA. Elecampane. Also, the name of a genus of plants.

Inula Dysenter'ica. The lesser inula.

Inula Hele'nium. The systematic name of the common inula or elecampane.

INUNC'TION. *Inunctio*. A liniment, or ointment. Also, the act of anointing.

INUS'TION. Cauterization.

INVAG'INATED. *Invaginatus*; from *in*, and *vagina*, a sheath. Applied to a part received into another. Intussusception.

INVAGINA'TION. Intussusception.

INVA'SION. *Invasio*. The period when a disease first makes its attack, or is developed.

INVERMINA'TION. Helminthiasis; affected with worms; that condition which gives rise to the presence of worms.

INVERSIO PALPEBRARUM.—Entropion.

INVER'SION. *Inversio*. Turned inside out.

INVERTEBRA'TA. *Invertebrates*. Animals which have no vertebral column.

INVOLUCEL'LUM. A partial involucrum.

INVOLU'CRUM. From *in*, and *volvo*, to wrap up. A wrapper. In *Anatomy*, a membrane which surrounds a part. In *Botany*, the bracteæ which surround the flowers of the umbelliferæ.

Involucrum Cordis. The pericardium.

INVOLU'TE. *Involutus*. Rolled inward.

IODATE. *Iodas*. A genus of salts, formed by the union of iodic acid with a salifiable base.

IO'DIC ACID. *Acidum iodicum*. A white semi-transparent solid, of an astringent and sour taste, and destitute of odor.

IODIDE. A compound of iodine with a simple body.

IODINE. *Iodium*; from ιωδες, violet colored. A soft friable opaque solid, of a bluish-black color and metallic lustre.

IODINA. Iodine.

IODINIUM. Iodine.

IODINUM. Iodine.

I'ODIFORM. Carbonis sesqui-iodidum.

IODISM. The morbid effects of iodine.

IODO-HYDRARGYRATE OF POTASSIUM. A double salt of iodide of potassium and binioide of mercury.

IODOSIS. Iodism.

I'ODURETS. Iodides.

IONIDIUM. The name of a genus of plants.

Ionidium Ipecacuan'ha. A Brazilian plant, which yields a root of a yellowish-gray color, containing five per cent. of emetine. False Brazilian ipecacuanha.

Ionidium Marcucci. A South American plant, called by the natives, *cinchunchulli*.

ION'THUS. From ιον, the violet, and ανθος, a flower. A small unsuppurative tumor on the face; a variety of acne. Also, the down on the face which precedes the beard.

IOTACIS'MUS. Defective articulation, in which the patient is unable to pronounce the palatals, J and G soft.

IPECACUAN'HA. The pharmacopœial name of the *cephælis ipecacuanha*, a South American plant. In large doses, it is emetic; in smaller, diaphoretic and expectorant.

Ipecacuanha, American. Euphorbia ipecacuanha.

Ipecacuanha, Annulated. The root of the cephaëlis ipecacuanha.

Ipecacuanha, Black. The root of the psychotria emetica of Peru.

Ipecacuanha, False Brazilian.—The root of the ionidium ipecacuanha.

Ipecacuanha, Undulated. Ipecacuanha, white.

IPOMÆ'A JALAPA. Convolvulus jalapa.

IRACUN'DUS. The rectus externus oculi.

IRIDECTOMEDIALYSIS. From ιρις, iris, εκτομη, excision, and διαλυσις, separation. The formation of an artificial pupil, by excision and separation.

IREDES'CENT. The property of shining with many colors.

IRI'DIUM. A gray, brittle and very fusible metal, found with the ore of platinum.

IRIS. In *Anatomy*, a flat and circular partition between the anterior and posterior chambers of the eye, perforated in the centre by a round orifice called the pupil. In *Botany*, the name of a genus of plants.

Iris Florenti'na. Florentine orris.

Iris Florentine. Iris Florentina.

Iris German'ica. The flower-de-luce. Iris nostra.

Iris Palustris. The yellow water-luce-flag.

Iris Versic'olor. The blue-flag.

IRITIS. Inflammation of the iris.

IRON. Ferrum. A metal of a bluish-gray color; fibrous texture, and brilliant fracture.

Iron, Hydrated Peroxyd of. Hydrated oxyd of iron.

IRREDU'CIBLE. Applied to fractures, dislocations, herniæ, &c., which are not capable of being restored to their natural position.

IRREG'ULAR. *Irregularis*. Applied to the types of disease, and to the pulse, when its beats are separated by unequal intervals. Also, to the teeth when one or more is out of the dental arch.

IRREGULAR'ITY. Deviation from an established rule or straight line.

Irregularity of the Teeth. "During the shedding of the teeth," says Mr. Fox, "there are several circumstances which prevent the permanent teeth from acquiring a regular position, and often give rise to very great irregularity in their arrangement.

The most frequent cause is a want of simultaneous action between the increase of the permanent teeth, and the decrease of the temporary ones, by the absorption of their fangs. It rarely happens that so much of the fang of a temporary tooth is absorbed as to permit its removal by the efforts of the child, before the permanent tooth is ready to pass through, on which account the new tooth takes an improper direction, and generally comes through on the inside.

Cases are very frequent in which scarcely any absorption of the fangs of the temporary teeth had taken place previous to the appearance of several

of the permanent teeth, and it often happens, that upon the removal of the shedding teeth to give room for the permanent ones, that no absorption of the fangs of the temporary teeth has taken place.

Irregularity of the permanent teeth is most commonly occasioned by the resistance made by the nearest temporary teeth; this is always the case if the temporary teeth are small and close set, for as the permanent incisores are much larger than the temporary, they require more room; but as the space left by the shedding of the temporary is too small for the regular position of the permanent, they are exposed to the pressure of the next tooth, and hence are frequently turned out of their direction.

Another cause of the irregularity of the teeth arises from the permanent teeth being too large for the space occupied by the temporary ones; those parts of the jaw not being sufficiently extended to permit a regular position of the new teeth; in this case the irregularity is considerable, and occasions great deformity in the appearance of the mouth. The incisores and cuspidati being much larger than those of the child, require room, for want of which they are turned out of their proper positions. The central incisores overlap each other—the lateral incisores are either placed obliquely with their edges turned forwards, or they are pushed back, and stand between and behind the central incisores and the cuspidati; the cuspidati are projected, occasioning the lip to stand out with considerable prominence, and the bicuspides are placed very irregularly."

In addition to the above, malformation of the jaws may be mentioned as another cause of irregularity. The superior alveolar arch is sometimes too narrow, having a compressed appearance, and projecting so as to prevent the uper lip from covering the front teeth. The arch at other times is too broad, giving to the roof of the mouth a flattened appearance, and causing the teeth to be separated from each other. The effect upon the appearance of the individual in either of these cases, is bad, but worse in the first than the last. The lower jaw is liable to similar faulty configurations.

The disposition to defects such as these, is observable in early childhood, and is regarded by most of those who have treated of it, as hereditary, and more peculiar to the people of some countries than others. Some attribute it to a rickety diathesis of the general system, but this opinion is gratuitous, as is shown by the fact, that most persons laboring under this affection, have good palates and well developed jaws. It cannot, therefore, with any degree of propriety be regarded as having any agency in the production of a faulty configuration of the jaws.

There is also another species of deformity sometimes met with in the upper jaw, equally difficult of explanation. It is characterized by one or more divisions of the upper lip, alveolar border, and palatine arch, always giving rise to irregularity in the arrangement of the teeth. This description of malformation is congenital.

Supernumerary teeth, too, may be reckoned among the causes of irregularity. But examples of this sort are comparatively of rare occurrence.

Irregularity of the Teeth, Treatment of. The cases of irregularity of the teeth are so various, and sometimes so complicated in their nature, that the skill and ingenuity of the dentist are often put to the severest test. Different cases require to be treated differently. It often becomes necessary to vary the means employed in the same case, or to use different appliances in different stages of the treatment; and the length of time required for its accomplishment, is sometimes such as to call for a greater amount of patience and perseverance on the part of both patient and practitioner, than every one can be prevailed upon to exercise.

Mr. Fox says, "In all cases of irregularity during the shedding of the teeth, the treatment to be observed is to remove the obstructing temporary teeth, and then to apply pressure in the most convenient manner upon the irregular tooth, in order to direct it into its proper situation."

Again, he says, "In the under jaw, when the growth of the permanent central incisores has exceeded the absorption of the temporary ones, they grow up immediately behind them, in a direction towards the tongue. These two new teeth are generally so broad as nearly to cover the inner surface of the four temporary incisores. It will, therefore, be necessary, in order to obtain room for these teeth, that the four temporary incisores be extracted. The new teeth will then gradually come forward, in which they will naturally be assisted by the pressure of the tongue of the child, and may be occasionlly helped by the finger of the parent or nurse.

"If the temporary central incisores have loosened, and come out previous to the appearance of the permanent teeth, the space is seldom sufficiently wide, and the new teeth will either grow up with their sides turned forward, or one will be placed before the other. In this case the two lateral incisores must be taken out.

"When the permanent central incisores have completely grown up, they occupy full two-thirds of the space, which contained the four temporary incisores, therefore, when the permanent lateral incisores appear, they are placed partly behind the centrals and the temporary cuspidati; or they grow up with one corner turned forwards and the other pointing backwards. In either of these cases the temporary cuspidati must be removed to give room."

This arrangement, is often, though not always, forced upon the lateral incisores by want of room between the centrals and cuspidati. The space between the last mentioned teeth is often amply sufficient for the four incisores.

"The four permanent incisores," continues Mr. Fox, "take up nearly the whole of the space of the temporary incisores and cuspidati. The permanent cuspidati are large teeth, and when they have not sufficient room, they occasion very great irregularity. Sometimes they come through on the inside, but most commonly they cut the gum on the outside, and project very much out of the circular line from the temporary incisores to the temporary molares. In this case the necessity of the removal of the first temporary molares is obvious."

Mr. F. here has evidently mistaken the order of the eruption of the permanent teeth. The first temporary molares and sometimes the second are replaced with bicuspides before the cuspidati appear, so that if the removal of any becomes necessary, to make room for the last mentioned teeth, it will be the first or second bicuspides, or even the first permanent molares, if they are decayed, but as the former are smaller than their predecessors, it is comparatively seldom that the sacrifice of any is called for.

But, proceeds Mr. F., "it is not very common that the bicuspides of the lower jaw are irregular, because the temporary molares are generally removed before they appear; but when this is not the case, they always come through the gums on the inside, pointing towards the tongue, in which case the temporary molares must be removed, that the bicuspides may rise into their proper situations.

"In the upper jaw the permanent central incisores sometimes pass through the gums behind the temporary ones; when this happens, the four temporary incisores must be extracted," if the wrong direction taken by the former has resulted from want of room between the latter, "and frequent pressure by the thumb should be applied to the new teeth, in order to bring them forward as soon as possible, and prevent one of

the cases of irregularity most difficult to be remedied.

"When the temporary central incisores come out, the space is generally too narrow for the permanent ones, and hence they are pressed into some shape of distortion. Their edges do not assume the regular curve, but stand obliquely, or even sometimes one before the other. Cases of this kind require the removal of the temporary lateral incisores."

The practice recommended in the last paragraph, is based upon the erroneous belief that the anterior part of the jaw acquires no increase of dimensions after the dentition of the temporary teeth. But the slight increase which takes place in this part of the alveolar border and the yielding of the temporary lateral incisores, to the pressure of the permanent centrals, the latter, in the majority of cases, acquire their proper position in the arch. Therefore, it is only when they are forced to take a wrong direction in their growth, for want of room between the temporary lateral incisores, that these last should be extracted.

"The permanent central incisores are very broad; they occupy the greater part of the space of the four temporary ones, and leave scarcely any room for the permanent lateral incisores; on which account these latter teeth must grow very irregularly; they generally pass through behind, being forced considerably backwards by the resistance of the central incisores and the temporary cuspidati. Sometimes they pass though edgeways, and now and then they project forwards. In any of these cases the removal of the temporary cuspidati is absolutely necessary, and unless the operation be timely performed, the irregularity is with difficulty remedied." A temporary tooth, however, should not be extracted, except to make room for a permanent one, or unless called for by some very pressing necessity. The practice above recommended is based upon false theory.

"But," adds Mr. Fox, "the greatest deformity is generally occasioned by the want of room for the lateral incisores and the cuspidati, and when too long neglected, usually becomes permanent."

But with regard to the means necessary for the prevention of irregularity, the reader is referred to the article on Dentition, second, method of directing. The varieties of irregularity to which the front teeth are subject, are thus enumerated by Mr. Fox.

First, "When the permanent incisores of the upper jaw have cut the gum behind the temporary teeth, and have been suffered to remain until considerably advanced in growth, they always stand so much inwards, that when the mouth is shut, the incisores of the under jaw stand before them, which is always an obstacle to their acquiring regularity, and occasions a great deformity. There are four states of this kind of irregularity. The first, when one central incisor is turned in, and the under teeth come before it, whilst the other central incisor keeps its proper place, standing before the under teeth.

"The second is, when both the central incisores are turned in, and go behind the under teeth; but the lateral incisores stand out before the under teeth.

"The third variety is, when the central incisores are placed properly, but the lateral incisores stand very much in; and when the mouth is shut, the under teeth project before them and keep them backward.

"The fourth is, when all the incisores of the upper jaw are turned in, and those of the under jaw shut before them. This is sometimes occasioned by too great a length of the under jaw, in consequence of which it projects considerably more forward than the upper jaw. But the majority of such cases originate entirely from neglect, and may be completely remedied by early assistance."

It is also proper to state that the cuspidati of the upper jaw present the same variety in deviating from their proper

position as the superior incisores, though it less frequently happens that they come out behind the arch so as to strike on the inside of the lower teeth, in the occlusion of the jaws.

The most proper time, according to Mr. Fox, to effect an alteration in the position of a tooth, is before the thirteenth or fourteenth year. The difficulty is certainly increased by delaying it to a later period, though it may be done with safety at any time before the eighteenth and often even before the twentieth or twenty-first year of age, but as a general rule, the later a tooth is moved, the greater will be the future susceptibility of the socket and gum around it to disease.

To bring an upper tooth forward into the arch, which has come out so far behind it as to strike on the inside of the lower teeth, "two objects," says Mr. Fox, "must be accomplished, one to apply a force which shall act constantly upon the irregular tooth, and bring it forward; the other, to remove that obstruction which the under teeth, by coming before the upper, always occasions.

"The first of these objects may be attained by the application of an instrument adapted to the arch of the mouth, which, being attached to some strong teeth on each side, will furnish a fixed point in front, to which a ligature previously fastened on the irregular tooth may be applied, and thus by occasionally renewing it, a constant pressure is preserved, and the tooth may be drawn forward.

"The second object, that of removing the resistance of the under teeth, must be attained by placing some intervening substance between the teeth of the upper and under jaws, so as to prevent them from completely closing, and be an obstruction to the coming forwards of the irregular tooth.

"The instrument may be made of gold or silver; it should be so strong as not easily to bend; if about the sixteenth of an inch in breadth, and of a proportionate thickness, it will be sufficiently firm. This bar of gold must be bent to the form of the mouth, and should be long enough to reach to the temporary," or permanent "molares, which are the teeth to which it is to be tied. Holes are to be drilled in it at those places where ligatures are required, which will be on the parts opposed to the teeth designed to be the fixed points, and, also, at the parts opposite to the place where the irregular tooth or teeth are situated. Then to the bar a small piece of ivory is to be connected, by means of a little piece of gold which may be fastened to the ivory and the bar by two rivets. This piece of ivory passes under the grinding surfaces of the upper teeth, is kept there fixed, and prevents the teeth from closing, and, consequently, takes off all obstruction in front."

"The bar is to be attached by a strong silk ligature to the teeth at the sides, so that, if possible, it may remain tight as long as it is required; a ligature is then to be tied around the irregular tooth, and the ends, being brought through the holes in the bar, are to be tied in a firm knot. In two or three days this ligature must be removed and a new one applied; the tooth will soon be perceived to move. A fresh ligature must be used every three or four days, in order to keep up a constant pressure, sufficiently powerful to bring the tooth into a line with the others.

"The same mode of treatment is to be observed whether there be one, two, or three teeth growing in a similar manner. The teeth are usually brought forwards in about a month or five weeks, and as soon as they are so much advanced as to allow the under teeth to pass on the inside, the piece of ivory may be removed, and the bar only be retained for a few days, until the teeth are perfectly firm, which will prevent the accident of the teeth again receding."

"In cases where the irregularity has

been suffered to continue too long, no success can be expected to follow attempts to remove it; we must content ourselves in the treatment of these cases in adults, with taking away the most irregular teeth, and thus, as much as possible, lessen the deformity."

Gold caps are now substituted for the blocks of ivory recommended by Mr. Fox. These latter, when well adapted to the teeth over which they are placed, are far preferable, as they are less annoying to the patient, and can, consequently, be worn with less inconvenience. The first permanent molares are the most suitable teeth to be employed for the purpose. The second temporary molares, may, however, be used, or if they have been molted and replaced with bicuspides, these will answer, though less suitable than either of the others. When caps are used, it is not necessary to attach them to the gold bar passing round the front teeth.

It is also proper to remark, that the gold bar and caps should be removed, and the teeth thoroughly cleansed, every time the ligatures are renewed. This is necessary to prevent the teeth from being injured by the chemical action of the corrosive matter that forms between them and the gold bar, caps, and ligatures.

Various other methods have been proposed and adopted for the purpose of remedying irregularity of the teeth. M. Delabarre recommends the employment of ligatures, so applied, as to keep up a constant action upon the deviating teeth. Instead of using blocks of ivory or gold to prevent the teeth from coming together, and forming a permanent obstacle to the adjustment of a tooth which has come out so far back of the dental circle, as to fall behind the lower teeth every time the mouth is closed, he employs wire caps or grates placed upon two of the lower molares. This treatment, if it were the most efficient, would, for several reasons, be objectionable. In the first place, the ligatures, when applied so as to act upon a deviating tooth, acts with equal force upon the adjoining teeth and moves them just as far from their place, as it does the other toward the place it should occupy. In the second place, it is difficult to apply it so as to prevent it from coming in contact with, and irritating the gums. Thirdly, it cannot be made to act with as much force when thus applied as when used in connection with the gold bar. The fourth, and last objection, applies to the wire grates. These cannot be fixed to the teeth as readily as either the ivory blocks or gold caps, and such as could be conveniently employed for the purpose, would not interpose a barrier sufficiently thick in all cases to prevent the front teeth from coming together.

For remedying the description of irregularity under consideration. M. Catalan proposes the employment of an inclined plane, which may be made either of gold, or silver, but the former is preferable, as the latter is liable to corrode in the mouth, fixed upon the lower teeth in such a way that it shall strike behind the deviating teeth, at each occlusion of the jaws, and press them forward toward the place they should occupy. When several of the upper front teeth have come out behind the arch so as to fall behind the lower incisores, Catalan employs as many inclined planes as there are deviating teeth. When only one tooth is behind the circle of the lower teeth, a single inclined plane will be sufficient.

The gold frame or case applied to the lower teeth, and to which the inclined plane is attached, should be fitted with the nicest accuracy, and made to enclose one or both of the bicuspides on each side. The cutting edges of the incisores and points of the cuspidati need not be covered with it. Its adaptation, when applied, should be such as to hold it firmly and securely in its place, and prevent the action of the deviating tooth upon the inclined plane

from jostling or moving it in the least. It will be necessary, too, in adjusting one or more inclined planes to this frame, so that they shall act upon the right points on the deviating teeth, to have a plaster antagonizing model.

When this instrument is employed, it, of course, is not necessary to interpose any substance between the back teeth, and it is unquestionably the most efficient and powerful agent that has ever been used for remedying this description of irregularity. But before it is applied, it should be ascertained whether there be a sufficient aperture in the dental circle for the reception of the deviating tooth, or teeth, if there be more than one, and if there is not, more room should be obtained by the removal of one of the bicuspides on each side, or the first molares, if they be decayed. The tooth, too, which is to be brought forward, should always be opposite the aperture it is intended it should occupy, before it is submitted to the action of the inclined plane. Therefore, when it is situated at either side, as is often the case, it should be moved with ligatures to a point directly behind the vacuity in which it is intended it should be forced, by the inclined plane, before that is applied.

It often happens, that one or more of the teeth, though situated in the circle, stands obliquely or transversely across it, so that its anterior and posterior surfaces present laterally. All that is necessary in cases of this sort, is simply to turn the tooth or teeth, if there be more than one, partially round in their sockets. To do this, M. Delabarre applies a gold cap to the twisted tooth, with ligatures attached to each side, which he passes round the adjoining teeth, and secures to the temporary molares or bicuspides on either side, in such a manner as to make them act constantly in the direction the tooth is to be turned. The author has found a gold ring, properly fitted to the tooth, to answer better than a cap, for the reason that it is less annoying to the patient. The object may sometimes be accomplished with ligatures alone.

In altering the position of a tooth, ligatures of gum elastic are far preferable to silk.

It sometimes happens, from excessive development of the lower incisores and alveolar border, that the front teeth of the inferior maxillary shut over the corresponding teeth of the superior, causing the chin to project and a bulging of the lower lip. This species of deformity, however, is not always produced by the cause just stated. It sometimes results from excessive development, or a partial dislocation of the jaw. When from the former, the deformity can only be remedied by diminishing the size of the dental arch, which is always a tedious and difficult operation, requiring a vast amount of patience and perseverance on the part of the patient, and much mechanical ingenuity and skill on the part of the dentist. The appliances to be employed have, of necessity, to be more or less complicated, requiring the most perfect accuracy of adaptation and neatness of execution; they must also be worn for a long time, and as a natural consequence, are a source of very considerable annoyance.

In the treatment of a case of this sort, the first thing to be done, is to extract the first bicuspis on each side of the jaw. By this means, a sufficient amount of room will be obtained for the contraction, which it will be necessary to effect in the dental arch for the accomplishment of the object. An accurate impression of the teeth and alveolar ridge, should now be taken, in the manner described in another article, with wax, previously softened in warm water. From this impression, a plaster model should next be procured, and afterwards a metallic model and counter-model.

This done, a gold plate of the ordinary thickness should be swedged up over the first and second molares if the latter has made its appearance, and if not,

over the second bicuspis and first molar on each side of the jaw, so as completely to encase these teeth. If these caps, on applying them to the teeth in the mouth, should not be found thick enough to prevent the front teeth from coming together, a piece of gold plate should be soldered on that part of each which covers the grinding surface of the organ, and having proceeded thus far, a small gold knob should be soldered on each side of each cap, and to each of which a ligature of silk or gum elastic should be attached. These ligatures should now be brought forward and tied tightly around the cuspidati. By this means the cuspidati may, in fifteen or twenty days, be taken back to the second bicuspides; but, if in their progress they are not carried towards the inner part of the alveolar ridge, the outer ligatures may be left off after a few days, and the inner ones only employed to complete the remainder of the operation.

After the position of the cuspidati have been thus changed, the gold caps should be removed and a circular bar of gold extending from one to the other, so constructed as to pass about a quarter of an inch behind the incisores, should now be soldered at each end to the inner side of each cap, and a hole made through it behind each of the incisores, through which a ligature of silk should be passed, and after it is placed in the mouth, brought forward and tied tightly in front of each tooth. These ligatures should be renewed every day until the teeth are carried far enough back to strike on the inside of the corresponding teeth in the upper jaw.

The author has never known an apparatus of this description to be employed by any one but himself, but in his practice it has proved more efficient than any contrivance which he has ever used. But it is necessary that every part of the apparatus be constructed with the most perfect accuracy, to ensure success and prevent, as much as possible, the inconvenience necessarily resulting from the use of such an appliance.

IRRITABIL'ITY. *Irritabilitas;* from *irrito*, I provoke. The susceptibility, possessed by all living organic tissues, of being acted upon by certain stimuli.

IR'RITANT. *Irritans.* That which causes irritation.

IRRITA'TION. *Irritatio.* The condition of an organ or tissue, in which there exists an excess of vital action.

ISA'TINE. A compound, formed by digesting blue indigo with water, sulphuric acid, and bichromate of potassa, or by heating it with weak nitric acid.

ISA'TIS TINCTORIA. *Glastum.* Woad.

ISCHÆ'MIA. From ισχω, I retain, and αιμα, blood. A morbid suppression of a customary discharge of blood.

ISCHÆ'MON. Any medicine which arrests or restrains bleeding.

ISCHI'AGRA. From ισχιον, the haunch, and αγρα, a seizure. Ischiatic gout. Also, femoro-popliteal neuralgia.

IS'CHIAS. Hip-gout, or rheumatism of the hip-joint.

ISCHIO-CAVERNO'SUS. The erector penis muscle.

ISCHIOCE'LE. From ισχιον, the ischium, and κηλη, a tumor. Ischiatic hernia.

ISCHIO-CLITORIA'NUS. Belonging to the ischium and clitoris.

ISCHIO-CLITO'RIAN ARTERY. A branch of the internal pudic artery, which supplies the two arteries of the clitoris.

ISCHIO-CLITORIAN NERVE. A branch of the pudic nerve distributed to the clitoris.

ISCHIO-CLITORIDE'US. The erector clitoridis.

ISCHIO-COCCYGE'US. The coccygeus muscle.

ISCHIO-FEMORALIS. The adductor magnus femoris.

ISCHIO-FEMORO-PERONEUS. The biceps femoris muscle.

ISCHIO-PERINEA'LIS. The transversus perinei.

ISCHIO-PROSTAT'ICUS. The transversus perinei.

ISCHIO'SIS. Sciatica. Femoropopliteal neuralgia.

IS'CHIUM. From ισχις, the loin. The lower part of the os innominatum. In the fetus, one of the three bones of the os innominatum.

ISCHNOPHO'NIA. From ισχνος, slender, and φωνη, voice. Shrillness of voice.

ISCHNO'TES. Emaciation.

ISCHURET'IC. Remedies which relieve a suppression of the urine.

ISCHU'RIA. From ισχω, I restrain, and ουρον, the urine. Retention of urine.

ISCHURIA SPASMODICA. Retention of urine from spasmodic contraction of the sphincter of the bladder.

ISCHURIA SPURIA. A retention of urine occasioned by some disease of the kidney or uterus which prevents the urine from reaching the bladder.

ISINGLASS. Ichthyocolla.

ISIS NOBILIS. Red coral.

ISOCH'RONOS. From ισος, equal, and χρονος, time. Applied to two or more actions performed in an equal length of time, as the pulsations of the arteries in different parts of the body.

I'SOLATED. Insulated; standing by itself.

ISOM'ERIC. From ισος, equal, and μερος, a part. In *Chemistry*, compounds which agree in composition, but differ in properties.

ISOM'ERISM. The state of an isomeric compound.

ISOMOR'PHISM. Isomorphous.

ISOMOR'PHOUS. Applied to different bodies having the same crystalline form.

ISOTHER'MAL. From ισος, equal, and θερμη, heat. Applied to different bodies and places which have the same average temperature.

ISSUE. An artificial ulcer.

ISTH'MION. *Isthmus*. The fauces.

ISTHMI'TIS. Inflammation of the fauces.

ISTH'MUS. Isthmion.

ISTHMUS HEPATIS. The anterior point of the right lobe of the liver; called, *lobulus anonymus*.

ISTHMUS OF THE THYROID GLAND.—A band of fibres uniting the two divisions of the thyroid gland.

ISTHMUS VIEUSSENII. The ridge surrounding the remains of the foramen ovale, in the right auricle of the heart.

ITCH. Psora.

ITCH, BAKER'S. Psoriasis.

ITCH, BARBER'S. Sycosis.

ITCH, GROCER'S. Psoriasis.

ITCH, INSECT. Acarus scabiei.

ITER. A passage.

ITER AD INFUNDIB'ULUM. The foramen commune anterius of the brain.

ITER A PALATO AD AUREM. The eustachian tube.

ITER A TERTIO AD QUARTUM VENTRIC'ULUM. A passage from the third to the fourth ventricle of the brain.

ITER DENTIS. A name given by Delabarre to the alveo-dental canal, a small foramen immediately behind each temporary tooth communicating with the cell of the corresponding permanent tooth.

ITINERA'RIUM. A conductor; a director. Also, a catheter.

ITIS. From ιτης, bold, rash. A suffix denoting inflammation, as odontitis, periostitis, &c.

I'VORY. The tusk of the male elephant. It is of a uniform close texture, and under the microscope exhibits a structural arrangement similar to that of tooth-bone. According to Retzius, it is of a tubular structure, but it has also been shown to be cellular. It contains about 66 per cent. of phosphate of lime with a small trace of carbonate of lime, and 34 of animal matter. It was at one time much used for artificial teeth, but at present is seldom employed for that purpose.

IVORY, BLACK. Animal charcoal.

IVY. Hedera helix.

IVY, GROUND. Glecoma hederacea.

I'XIA. A varix. Viscum album.

IXUS. Galium aparine.

J.

JACA INDICA. Thymus mastichina, or the common herb mastich.

JACEA. Viola tricolor. Pansey. Also, the name of a genus of plants.

JACINTHUS. Hyacinthus.

JACK-IN-THE-HEDGE. Erysimum alliaria.

JACKSON. Author of a Dissertation on the Physiology and Pathology of the Eruption of the Teeth, published, Edinburgh, 1772 and 1778.

JACOBÆ'A. Sonecio Jacobæa.

JACTITA'TION. *Jactitatio.* Inquietude; restlessness.

JALAP. *Jalapa.* Convolvulus jalapa. The root of the *ipomœa jalapa*, a valuable purgative.

JALAPA ALBA. White jalap.

JALA'PIN. The principal resin of jalap.

JAMAICINE. Geoffræa inermis, or worm-bark tree.

JAMES' POWDER. Antimonial powder.

JAMESTOWN WEED. Datura stramonium.

JAMET, C. A. Treatise on the Teeth, &c. by. Paris, 1839.

JAMET'S TOOTH POWDER. ℞.—Florence iris, calcined, with spirits of wine, ℔i; magnesia, ʒ iv; pumice stone, ʒ viij; bones of cuttle-fish, ʒ viii; sulph. quinine, ʒ iv; cascarilla, ʒ i; sugar of milk, ℔i. Reduce these substances to powder and pass them through a fine sieve.

JANITOR. The pylorus. Also, a door-keeper.

JANKE. Dissertation on the Extraction of Teeth, by. Leipsic, 1751.—On the Bones of the Mandibule of Children of seven years of age, Leipsic, 1751.

JANITRIX. The vena portæ.

JASMIN. Jasminum officinale.

JAS'MINUM. The name of a genus of plants.

JASMINUM ARABICUM. Coffea arabica.

JASMINUM OFFICINALE. Jessamine.

JASPACHA'TES. Agate, jasper.

JASPER. A siliceous mineral of various colors; a species of quartz.

JA'TROPHA. The name of a genus of plants.

JATROPHA CURCAS. Nux cathartica Americana; physic-nut.

JATROPHA ELASTICA. Caoutchouc.

JAUNDICE. Icterus.

JAUNDICE, BLACK. Melæna.

JAW. Maxilla.

JAW, LOWER, ANCHYLOSIS OF. Stiffness and immobility of the temporo-maxillary articulation. It results from chronic rheumatism or gout, or old age, or from some disease of the synovial membrane, cartilage of the joint, or articular surface or extremity of the bone. Fortunately, it is an affection of rare occurrence, as it seldom admits of cure.

JAW, LOWER, DISLOCATION OF.—From the peculiar manner in which the inferior maxilla is articulated to the temporal bones, it is not very liable to be dislocated, and when one or both of its condyles are displaced, the luxation is always forwards. The conformation of the parts prevents it from taking place in any other direction. The oblong, rounded head of each condyle is received into the fore part of a deep fossa in the temporal bone, situated just before the meatus auditorious externus, and under the beginning of the zygomatic arch. The articular surface of each is covered with a smooth cartilage, and between which there is a movable cartilage. This latter is connected with the articulating surface of the condyle and the fossa of the temporal bone by ligaments attached to its edges. But the articulation is rendered still more secure by means of an external ligament which rises from the external edge of the fossa

in the temporal bone, and is attached to the neck of the condyle of the jaw, which it surrounds—constituting the true capsular ligament. The intervening movable cartilage, from being more strongly connected with the head of the condyle than to the articular cavity, escapes with the former, whenever a dislocation of the jaw takes place.

Dislocation of the lower jaw is rarely caused by a blow, except it is given when the mouth is open; it is more frequently occasioned by yawning, or laughing. It has been known to occur in the extraction of teeth, and in attempting to bite a very large substance. Sir Astley Cooper mentions the case of a boy who had his jaw dislocated by suddenly putting an apple into his mouth to keep it from a playfellow.

After the jaw has been dislocated once, it will ever after be more liable to this accident, and in consequence of which, Mr. Fox very properly recommends to those to whom it has once happened, the precaution of supporting the jaw whenever the mouth is opened very widely in gaping, or for the purpose of having a tooth extracted. But none of these causes would be sufficient to produce the accident, except the ligaments of the temporo-maxillary articulation are very loose, and the muscles of the jaw very much relaxed.

The author has never had an opportunity, in his own practice, of witnessing but one case of dislocation of the lower jaw, and the subject of this was a young lady from Virginia, about seventeen years of age. It occurred in attempting to extract the first right inferior molaris. Both condyles were displaced, but so completely were the muscles of the jaw relaxed, that he immediately reduced it without the least difficulty, and, afterwards, by supporting the jaw with his left hand, he succeeded in removing the tooth.

When the lower jaw is dislocated, the mouth remains wide open, and a great deal of pain is experienced, which, according to Boyer, is caused by the pressure of the condyles on the deep-seated temporal nerves, and those which go to the masseter muscles, situated at the roots of the zygomatic processes. The condyles having left their place of articulation, are advanced before the articular eminences and lodged under the zygomatic arches. The jaw cannot be closed; the coronoid process may be felt under the malar bones; the temporal, masseter and buccinator muscles are extended; the articular cavities being empty, a hollow may be felt there; the saliva flows uninterruptedly from the mouth, and deglutition and speech are either wholly prevented, or very greatly impaired. Boyer says, that "during the first five days after the accident, the patient can neither speak nor swallow." The jaw when only one condyle is displaced, is forced, more or less, to one side.

If the dislocation continues for several days or weeks, it is said, the chin gradually approaches the upper jaw, and that the patient slowly recovers the functions of speech and deglutition. We are told by Mr. Samuel Cooper, that it may prove fatal, if it remains unreduced,* but Sir Astley Cooper says, he has never known any dangerous effects to result from this accident—on the contrary, that after it had continued for a considerable length of time, the jaw partially recovered its motion.†

In the reduction of a dislocation of the lower jaw, the ancients employed two pieces of wood, which were introduced in each side of the mouth between the molar teeth, and while they were made to act as levers for depressing the back part of the bone, the chin was raised by means of a bandage.

The method usually adopted by surgeons for reducing a dislocation of this bone, consists in introducing the thumbs, wrapped with a napkin or cloth, to pre-

* Vide Surgical Dictionary, p. 306.
† Vide A. Cooper on Dislocations, p. 389.

vent them from being hurt by the teeth, as far back upon the molar teeth as possible, then depressing the back part of the jaw, and, at the same time, raising the chin with the fingers. In this way the condyles are disengaged from under the zygomatic arches, and made to glide back into their articular cavities. But the moment the condyles are disengaged, the thumbs of the operator should be slipped outwards between the teeth and cheeks, as the action of the muscles, at this instant, in drawing the jaw back, causes it to close very suddenly, and with considerable force, so that this precaution is necessary to prevent being hurt, unless a piece of cork or soft wood has been previously placed between the teeth—a precaution which should never be neglected.

By the foregoing simple method of procedure, the dislocation may, in almost every case, be readily reduced, but Mr. Fox mentions a case in which it failed. The subject was a lady who had had her lower jaw luxated several times before, and this time the accident was occasioned by an attempt which he made to extract one of the inferior dentes sapientiæ. After having failed to reduce the luxated bone by the usual method, he says, he "happened to recollect a statement made to him by M. de Chemant, of his having been frequently applied to by a person at Paris, who was subject to this accident, and that he always succeeded in reducing the luxation immediately," by means "of a lever of wood, as recommended by Dr. Monroe." Profiting by this statement, Mr. F. procured a piece of wood "about an inch square, and ten or twelve inches long." He placed one end of this upon the lower molares, and then raised the other, so that the upper teeth aided as a fulcrum. As soon as the jaw was depressed, the condyle of this side of the jaw, upon which the wood was applied, immediately slipped back into its articular cavity. The wood was then applied to the opposite side of the jaw, and the other condyle reduced in the same manner.*

The method proposed by Sir Astley Cooper, consists, when both condyles are displaced, in introducing two corks behind the molares, and then elevating the chin. He, however, first places his patient in a recumbent posture.†

After the reduction of the dislocation, the patient is recommended to abstain, for several days, from the use of solid aliments, and to prevent a recurrence of the accident, to wear a four-tailed bandage,‡ or, what is still better, the bandage contrived by Mr. Fox, (see Fox's Bandage,) to prevent its recurrence in the extraction of teeth. When it is used for the latter purpose, the mouth is first opened to a proper extent, when, with the condyles in their articular cavities, it is applied and the straps tightly buckled. This done, it is impossible to advance the jaw sufficiently to produce a dislocation.

Jaw, Lower, Fractures of. Fractures of the lower jaw may occur near the symphysis, or between this point and the coronoid process at the ramus, and at one or two places. The condyloid or coronoid process may be fractured, or the alveolar border, and the solution of continuity may be perpendicular with the base, oblique, or longitudinal, and as the accident is the result of great mechanical violence, the soft parts are generally more or less injured. In one case which fell under the observation of the author in which the fracture occurred between the first and second molares, the extremity of the posterior portion of the bone protruded externally through the cheek.

In his Surgical Dictionary, Mr. Samuel Cooper says, "Fractures of the lower jaw, are subject to displacement in the following way. When the fracture is

* Vide American edition of Fox on the Human Teeth, p. 330.

† Vide A. Cooper on Dislocations, p. 391.

‡ Vide Cooper's Surgical Dictionary, p. 306.

near the symphysis, the side on which the process innominatus is situated, is drawn downwards and backwards by the sub-maxillary muscles, while the other fragment is supported by the muscles which close the jaw. When the fracture is more backwards, the displacement occurs in the same way but not so easily. When the bone is fractured in two places, the middle portion is always pulled downwards and backwards by the muscles attached to the chin. While the two lateral pieces are kept up by the levator muscles. When the ramus of the jaw is broken, the masseter being attached to both pieces prevents any considerable degree of displacement. When the neck of the condyle is fractured, the pterygoideus externus may pull the condyle forwards.

"When a blow is received on the lower jaw, or the bone is injured by a fall, or by the pressure of some heavy body; when an acute pain is experienced in the part, and an inequality can be felt at the basis of the bone, when some of the teeth, corresponding to that inequality, are lower than the others; and when a crepitus is perceptible on moving the two pieces of the jaw on each other; there can be no doubt of a fracture. When the gums are lacerated, or the bone denuded by a wound, the case is, if possible, still more manifest.

"Fractures of the rami and condyles produce great pain near the ear, particularly when the jaw is moved; and a crepitus may also be felt.

"Fractures of the lower jaw, whether simple or double, are easily set, by pushing the displaced part upwards and a little forwards, and then pressing in the basis of the bone, so as to bring it exactly on a level with the portion which has preserved its natural position. Indeed, the correctness of the reduction can always be rightly judged of by attending to the line which the base of the jaw ought to form, and observing that the arch of the teeth is as regular as nature will allow. The maintenance of the reduction, however, is difficult; and can only be executed by supporting the lower jaw, and keeping it applied to the upper one. As the latter indications cannot be properly fulfilled in persons whose teeth are very irregular, it is, sometimes, necessary to interpose an even piece of cork between the teeth on each side of the mouth, and against this cork the lower jaw is to be kept up with the bandage presently noticed, while the aperture left between the incisores in the situation where no cork is placed, allows food and medicines to be introduced with a small spoon.

"As soon as the fracture is set, the surgeon should adapt some thick pasteboard, previously wet and softened with vinegar, to the outside of the jaw, both along its side and under its basis. Over this moistened pasteboard, a bandage with four tails is to be applied, the centre being placed on the patient's chin, while the two posterior tails are to be pinned to the front part of a night-cap, and the two anterior ones fastened to a part of the same cap more backwards.* When the pasteboard becomes dry, it forms the most convenient apparatus imaginable for surrounding and sup-

* Dr. J. Rhea Barton, of Philadelphia, to whose science and skill I have had frequent occasion to allude, has devised a bandage for fractures of the jaw, to which a preference is now generally given in this country, as well for its superiority in retaining the fragments in a state of coaptation, as for the facility it affords in securing the dressings occasionally applied to wounds of the face and chin. He commences with "a roller an inch and a half wide just below the prominence in the occipitis and continues it obliquely over the centre of the parietal bone across the juncture of the coronal and sagittal sutures, over the zygomatic arch, under the chin, and pursuing the same direction on the opposite side, until he arrives at the back of the head; he then passes it obliquely around and parallel to the base of the lower jaw over the chin; and continues the same course on the other side until it ends where he commenced and repeats."—*Reese.*

porting the fracture. A piece of soap-plaster may now be applied to the skin underneath, which will prevent any ill effects of the hardness and pressure of the pasteboard.

"Until the bone is firmly united, the patient should be allowed only such food as does not require mastication, and it may be given by means of a small spoon introduced between the teeth. Broths, soups, jellies, tea, and other slops, appear most eligible.

"In order to keep the middle portion of the bone from being drawn downwards and backwards towards the larynx, it is frequently necessary to apply tolerably thick compresses just under and behind the chin; which are to be well supported by the bandage already described.

"I need hardly state the necessity of enjoining the patient to avoid talking, or moving the jaw more than can possibly be avoided.

"When the condyle is fractured, as it is incessantly drawn forwards by the action of pterygoideus externus, and on account of its deep situation cannot be pressed back, the lower portion must, if possible, be pushed into contact with it. For this purpose the bandage must be made to operate particularly on the angle of the jaw, where a thick compress should be placed.

"Compound fractures of the lower jaw are to be treated on the same principles as similar injuries of other bones. If possible, the external wound should be healed by the first intention; and when this attempt fails, care must be taken to keep the wound clean by changing the dressings about once in three days, but not oftener lest the fracture suffer too much disturbance. It is observed that compound fractures of the jaw, and even simple ones, which are followed by abscesses are particularly liable to be succeeded by troublesome and tedious exfoliations.

"In very bad fractures, in which all motion of the jaw must have the most pernicious effect, I consider it prudent to administer every kind of nourishment in a fluid form through an elastic gum catheter, introduced through one of the nostrils down the œsophagus.

"It now and then happens that fractures of the jaw continue ununited: Dr. Physick's successful treatment of one such with a seton I have already noticed."

When the fracture is confined to the alveolar border, it becomes necessary, in most instances, to remove the detached portion, as a union will seldom take place, though it will be proper to wait, except the soft parts are considerably lacerated, until the bony fragment is separated from them, by the suppurative inflammation which soon supervenes. But when a large portion of the border is fractured, a union may sometimes be effected, if the part be properly secured.

Jaw, Lower, Immobility of. This may result from anchylosis, or from inflammation and adhesion of the gums, or from contraction of the muscles. It is particularly liable to occur after mercurial salivation which has resulted in necrosis and exfoliation of the alveolar processes. The following interesting case was communicated by professor Mott to the American editor, Dr. Reese, of Cooper's Surgical Dictionary, and from which work it is now quoted.

"A youny man twenty-one years of age, from North Carolina, called, with the lower jaw almost immovably fixed to the upper. No motion in a downward direction could be discovered, nor was the most powerful effort with the hand upon the chin able in the slightest degree to alter its situation. He had been in a deplorable state for ten years. Unable to chew a mouthful of food or even open the jaws for its reception, his food had to be introduced through a small opening, occasioned by an irregularity of the bicuspid teeth on the right side. On the left side, just within the angle of the mouth, a firm band, of more than ligamentous hardness, was to be seen and

felt, reaching from this point along the alveolar ridge to the coronoid process.

"Along the whole course of this adhesion to the gum of the lower jaw, there was not a vestige of a tooth, and he stated that from this part the jaw had been formerly separated, with the teeth attached to it. This morbid adhesion had been several times freely divided, it was cut from within the mouth in different directions, but never permitted the least motion of the jaw.

"From the circumstance that he could give a little lateral motion to the jaw, I thought that his mouth might yet be opened, and the deformity removed. I then made an incision from the angle of the mouth on the left side through the cheek, nearly to the coronoid process dividing the firm cicatrix within completely. The jaws being relieved by dividing all the adhesions between them; a piece of very broad tape was placed between the teeth by a probe and spatula and tied some distance below the chin. To the loop thus formed I applied all the strength I could command, but not the least yielding of the jaw could be discovered.

"I then applied the principle of the screw and lever, by an instrument prepared for the purpose, composed of two steel plates about three inches in length. When applied to each other, they were of a wedge shape. To the large end was attached a screw, which, when turned, caused the thin extremity of the plates to expand. This instrument enabled me to open the mouth completely.

"With considerable difficulty this vice was insinuated between the range of teeth on the left side, resting along their whole course. It was then expanded, by turning the screw, and such was the report that attended the yielding of the lower jaw, that several present thought it was broken, but the noise was like that attending the laceration of ligaments rather than such as attends the fracture of a bone. The mouth was immediately opened to a sufficient extent.

"The wound was closed with the interrupted suture and adhesive plaster; to prevent the adhesion of the cheek to the jaws internally, pieces of sponge were interposed. The patient was enabled to chew his food, and to converse and articulate distinctly as the result of the operation, and he entirely recovered."

The operation has subsequently been repeated by professor Mott, and with like success.

When the immobility results from, or is complicated with, anchylosis of the joint, no benefit will be derived from an operation.

Professor Paul F. Eve, of Augusta, Georgia, has performed two operations for separating the jaws. The first operation was performed in 1840, on a boy, aged five years, who, says professor E., "had had gangrænopsis, which had resulted not only in the destruction of the soft parts but anchylosis of the lower jaw. There was great deformity of the mouth. After free division of the zygomatic muscles and other soft parts, the right commissure of the lip was depressed, and the separation of the lower jaw increased by the lever power." The deformity was only partially removed.

In the other case, which had resulted from cancrum oris, or profuse salivation, the operation was only partially successful.

Jaw, Lower, Operations on. In describing the operations on the lower jaw we shall begin with: 1. *Excision.* Four pathological conditions are noticed by Chelius, as indicating the necessity of this operation, namely: first, a *cancerous degeneration of the lip*, extending to the bone, or from cancer originating in the bone itself. Second, an *osteo-steatoma, osteo-sarcoma, spina ventosa* and *fungoid* degeneration of the jaw. Third, deep seated *caries.* Fourth, *exostosis.* Fifth, want of union of *fractures.*

According to the seat and extent of the disease, excision may be required either of a part or of the whole jaw.

Excision of Middle Portion of the Jaw.

The patient is seated in a chair, as in this position the blood is not so liable to flow into the throat and produce suffocation. An assistant behind supports the head, compressing, at the same time, the facial artery where it mounts over the lower jaw in front of the masseter muscle. The surgeon now makes an incision from the angle of the mouth, on each side, down to the base of the bone. The lip and soft parts between these two incisions are dissected towards the neck. The extent of the disease will now be ascertained, and the teeth corresponding to its limits are to be extracted. The bone is now to be deeply notched on the anterior surface from above downwards, by a small saw, such as Hay's, and then with the straight cutting forceps, one of the blades being within the mouth on the inner surface, the other in the groove on the outer surface, the bone is to be divided. In this division with the forceps the operator leans over the patient, and the tongue and soft parts are protected from the inner blade by means of a spatula, or other suitable instrument, or the finger, which is better than any thing else, and it is considered proper to clear a space for the blade within by passing a knife up. The next step is to remove the piece divided. This is done by standing in front, and with a sharp-pointed bistoury passed from below upwards, to cut close to the inner surface of the bone, dividing all the soft parts, namely, the digastric, part of the mylo-hyoid, the geno-hyoid, the geno-hyo-glossus, and the mucous membrane on both sides. But before this dissection, the tongue should be secured by passing a ligature through its apex, or the frænum, so as to prevent its sudden retraction in the mouth and suffocation.

Another mode of incision is to divide the lower lip by a single cut, after making it tense by stretching its angles, and extending the incision through the skin and cellular tissue to the os hyoides and dissecting the flaps from the surface of the bone outwards, which are to be held by assistants, the removal by the saw, forceps, and knife, being the same as described. The chain-saw is sometimes preferred in the division of the bone.

Dressing.—After cleaning the wound, all bleeding arteries should be tied. The inferior dental artery may be secured by plugging its orifice in the bone with wax. If bleeding continues from vessels that have retracted and cannot be discovered, the surface should be touched with the heated iron. Mr. Ferguson recommends that a quantity of lint be placed in the wound to prevent its sides from falling inwards, which other surgeons think of rather doubtful utility. To obviate this difficulty, Mr. Nasmyth, of Edinburgh, has constructed a *double silver case*, to contain the molar teeth of both upper and lower jaws, which is adapted previous to the operation, and which has been successfully used and highly recommended by Mr. Liston. The flaps are to be placed in juxta-position, and secured by the twisted suture.

The ligature passed through the frænum or tongue is directed by Dupeck, to be carried between the flaps, and secured to one of the hare-lip pins.

The several steps of the operation just described, may require to be modified in a greater or less degree, to suit particular cases. As, for example, if the lip be cancerous, its removal will be necessary, and should be done by making a section in the shape of the letter V, the apex looking downwards. Where only the anterior portion of the bone is attacked by disease, the posterior may be left, according to Dupeck, as being useful, both in preserving the natural shape of the jaw, and affording attachment to the muscles of the tongue.

Excision of the Side of the Lower Jaw.

The patient being seated as in the first case, an incision is made from the

angle of the mouth to the base of the jaw. A second incision is carried from this point along the base to the angle, and for a short distance up the ramus. The flap thus marked, is dissected backwards and held by an assistant. The facial artery is secured by ligature, but should not be divided by the first incisions; the masseter muscle is detached. An incisor and molar tooth being extracted, the jaw is prepared for division at its angle and near the symphysis by the application of the saw and forceps as already described in excision of the chin. In its removal the mylo-hyoid, the internal pterygoid muscles, and trunk of the inferior maxillary nerve will have to be separated. The genio-hyo-glossus will not be disturbed, and consequently the tongue will not be retracted.

Should it be required to remove the ascending ramus, it is only necessary to extend the incision still higher up along the ramus, and apply the saw, forceps and knife as before, bearing in mind the proximity of the external carotid artery. All the bleeding vessels having been secured, the flap is brought down and retained at the lip by means of the twisted suture, and along the base of the jaw by the interrupted, and supported by strips of adhesive plaster.

Other incisions are used in this operation. The *square-shaped of Cloquet* is made by commencing at the angle of the mouth, and extending the incision transversely to the posterior margin of the ramus of the jaw; then from each extremity of this cut to make two vertical incisions, namely, one in front going to the base of the jaw, and the other behind the ramus, descending a little below the angle. This flap is then dissected from above downwards upon the neck.

Professor Mott makes two flaps, the one semilunar, the other triangular. The first is made by one incision over the articulation of the jaw, carried down to the chin; the convexity of the semilunar incision looking backwards. The second begins at the upper end of this, and extends down the back part of the angle of the jaw, and a short distance along the anterior edge of the sterno-cleido-mastoideus. The superior flap is now dissected upwards, and the inferior downwards, thus fully exposing the bone, which is removed in both these different incisions in the way already described.

Excision of both Sides of the Lower Jaw.

Make an incision along the base of the inferior jaw from one angle to the other across the chin, and dissect the flap from the bone upwards, which is to be held by an assistant. The bone with the muscles and soft parts upon its posterior surface are to be divided and separated, as already detailed. If the tumor be very large, it is thought best to divide the lip.

2. *Disarticulation, with Excision of half the Lower Jaw.*

In an operation of this sort the incision must be directed very much by the size of the tumor and the extent of the disease invading the integument. The method of *Lisfranc* and *Curack* is thought to be very applicable. It is as follows: An incision is carried from the symphysis along the base to the angle of the jaw—then two vertical incisions are made at each extremity of this horizontal one—the first falling from the middle of the lower lip, and the second descending from the zygomatic arch behind the ramus of the jaw. The facial artery being secured, this flap is to be dissected upwards, taking care not to wound the parotid duct and gland. The jaw is now to be divided at the symphysis by the saw and forceps, and the muscles and soft parts separated from the posterior surface as far as the angle with the bistoury. The masseter is also to be separated from its attachments, which exposes the articulation. A probe-pointed bistoury is now passed

behind the coronoid process to divide the tendonous insertion of the temporal muscle. The jaw is depressed so as to luxate the condyle, and the knife is carried up to the articulation, dividing the external pterygoid muscle and articular ligaments, drawing the jaw forwards at the same time, so as to remove it as much as possible from the vessels behind its ramus. The condyle is now turned outwards, the knife passed into the joint, and the internal lateral ligament severed. At this stage, a number of arteries will be cut, which must be secured with ligature.

3. *Removal of the Whole Lower Jaw.*

In the performance of this formidable operation, a horizontal incision is made along the base of both sides of the jaw and chin to the angles; a second incision is made from the root of the zygoma to the angle of the jaw uniting with the posterior extremity of the horizontal incision. The flap is next dissected up over the face, and the jaw divided at its symphysis. Each half is now *disarticulated* as before described, and in both, the dressings are the same as detailed for other sections of this bone. Other incisions are used in this operation by different surgeons. One consists in carrying the knife from the angles of the mouth to the front of the ear. Another, in making two elliptical incisions, the one below along the base and ramus of the jaw to the condyle, the other above, laying bare the coronoid process and opening the joint. A third method, is the four cornered flap, made by carrying the knife from the angle of the mouth vertically to the base of the jaw, thence along the base to the angle, and upwards to the front of the articulation.*

Professor Paul F. Eve, of Augusta, Georgia, has furnished the author with a description of four operations performed by himself on the inferior maxilla.

The first operation was performed, May 31st, 1838, on a negro woman, aged twenty-five, for the removal of a tumor involving nearly the whole of the left side of the lower jaw-bone. The operation is thus described by professor E.: "An incision was made perpendicularly from the left angle of the lips to the thyroid gland, and from this point another one extending to the lobe of the ear of the same side. Extracting the canine tooth of this side, the inferior maxilla was divided with a saw, and then by a careful dissection, this portion of the bone was drawn outwards so as to apply the saw at its neck, leaving its condyle in the articulation. It measured four inches and three-quarters in length; the diseased mass presented a large fungous growth, containing numerous irregularly shaped spiculæ and laminæ of bone.

"Three ligatures, and some eight or ten sutures, with the ordinary dressings were applied."

"The disease," says professor E., "reappeared on the right side, and destroyed the life of the patient in eight or ten months."

In the second case, the operation was for epulis of the lower jaw. The bone was exposed "by an incision from the left angle of the mouth through the cheek to the extent of an inch and a half, the diseased mass was isolated by two perpendicular applications of the saw, and it was then chipped off with the chisel and mallet. This patient fully recovered."

In cases third and fourth, a portion of the inferior maxilla was removed for osteo-sarcoma, and both operations were successful.

Mr. H. Scott, dentist, of Lancaster, Ohio, furnished the author with a report of three operations, on the inferior maxilla, taken from the case-book of M. Z. Kreider, M. D., of that place.

The first was for the removal of a ne-

* Vide Ferguson's Practical Surgery by Norris; Pancoast's Operative Surgery; Chelius' System of Surgery, &c.

crosed portion of the lower jaw, resulting from inflammation produced by the dens sapientiæ. An incision was first made upon the ramus, and then carried forward to the canine tooth; this was removed, the soft parts separated, and the bone disarticulated, thus removing more than one-third of the bone. The second operation was performed for the removal of an osteo-sarcomatous tumor, extending from the first molaris, on one side, to the corresponding tooth on the other, which extended back in the mouth so as greatly to impede the motions of the tongue, and down to the os hyoides, to which it was slightly attached. The first molar on each side was extracted, and an incision made from one ramus to the other along the base of the jaw. The flap was then dissected from the jaw and turned upwards, the facial arteries secured, and the bone divided on each side at the points where the teeth had been extracted with the saw. The whole mass was next dissected out, the divided vessels tied, and the wound dressed in the usual manner. The operation was entirely successful.

The following is the history of case third: In 1824, Alexander Stall, aged forty-three years, "having tooth-ache, had the second molar of left side of the lower jaw extracted; he caught a severe cold about this time in consequence of laying out over night in a drunken spree; swelling with inflammation and great pain supervened; suppuration followed; pus was discharged from many points both from within and without the mouth; at this time (1827) is greatly emaciated; the bone, upon examination, is found to be necrosed, involving the articulation, and as far as the chin. To relieve him, the canine tooth of the opposite side was extracted and the bone found to be sound. A simple incision was then made, commencing below the lobule of the left ear, and at the posterior part of the ramus of the jaw; this was carried down to the base and continued around to the point of the extracted tooth. The facial artery was secured, the flap dissected upwards from the base, the masseter muscle detached, and the attachments within also separated from the bone. This was divided at the point of the extracted tooth; the trunk of the internal maxillary artery lying between the pterygoid muscles had been previously secured to prevent hemorrhage from its various branches. After having isolated the coronoid process, the bone was forced upwards, the internal pterygoid was then divided at its insertion near the condyle of the bone, which was then readily disarticulated and removed; it was found to be diseased and very offensive. The flap was brought down and secured by pins. The patient recovered and is still living."

For a description of the following novel and most extraordinary operation, the author is indebted to Dr. S. P. Hullihen, surgeon dentist, of Wheeling, Va. The ingenuity, skill, and boldness displayed in the conception and performance of this complicated operation, places Dr. H. at once among the ablest and best surgeons of the day.

"Miss Mary S.——, aged 20, daughter of the Hon. Wm. S——, of Ohio, came to Wheeling in the spring of 1848 to obtain relief from the effects of a very severe burn, which she had received fifteen years before.

"The burn was principally confined to the neck, and lower part of the face, and its cicatrix produced a deformity of the most dreadful character. Her head was drawn forward and downward, the chin was confined within an inch of the sternum, the under lip was so pulled down that the mucous membrane of the left side came far below the chin, the under jaw was bowed slightly downward, and elongated, particularly its upper portion, which made it project about one inch and three-eighths beyond the upper jaw. In front there was scarcely any appearance of either chin or

neck, she was unable to turn her head to either side, the cheeks and upper lip were dragged considerably downward, she could not close her eyelids; she could not close her jaws, but for an instant, and then only by bowing her head forward, she could not retain her saliva for a single instant, and as might be expected, her articulation was very indistinct.

"She had been taken to the city of New York some years before, for the purpose of being relieved of this deformity, and was placed under the care of two of the most distinguished surgeons in that city, who performed an operation by dissecting up the cicatrix on the neck, then raising the head, and sliding up the cicatrix from its original position, leaving a raw surface below to heal up by granulation; I need scarcely add that the operation was entirely unsuccessful.

"After a careful examination of the case, it became evident that such a complicated deformity could be best remedied by performing three separate operations, one upon the jaw, another upon the neck, and a third upon the under lip.

"To remove the projection of the under jaw seemed to require the first attention; unless that could be done the other operations, however successful, would add but little, if any, to the personal appearance of the patient. This lengthening of the jaw had taken place entirely between the cuspidatus and first bicuspid tooth of the right side, and between the first and second bicuspides of the left. By this elongation, the teeth just described were separated on both sides about three-fourths of an inch. To saw out the upper edge of these elongated portions of the jaw, and then to divide that part of the jaw in front of the spaces thus made, by sawing it through in a horizontal manner, so as to permit the upper and detached portion to be set back in its proper and original position, appeared to be the only possible way of remedying the deformity. This plan I therefore adopted, and performed the operation on the 12th day of June, in the manner now to be described.

"The operation was commenced by sawing out in a V shape the elongated portions, together with the first bicuspid on the left side, each section extending about three-fourths of the way through the jaw. I then introduced a bistoury at the lower point of the space from which the section was removed on the right side, and pushed it through the soft parts, close to and in front of the jaw, until it came out at the lower point of the space on the left side. The bistoury was then withdrawn, and a slender saw introduced in the same place, and the upper three-fourths of the jaw, containing the six front teeth was sawed off on a horizontal line ending at the bottom of the spaces before named, the detached portion being still connected on the outer and inner sides to the jaw below by the soft parts. After having with the bone-nippers removed from the detached portion the corners which were created by the horizontal and perpendicular cuts of the saw, it was set back so that the edges from which the V shaped sections were removed, came together.

"Thus it will be perceived, that this portion of jaw and teeth which before projected, and inclined outward, now stood back, and inclined inward, and in its proper and original place.

"In this position the jaw was secured by passing ligatures around the cupidati in the detached portion, and the now adjoining bicuspides in the sound portion, then taking an impression of the jaw in very soft wax, a cast was procured, and a silver plate struck up and fitted over the teeth and gum in such a manner as to maintain the parts in that same relation beyond the possibility of movement.

"The patient declared that the operation gave her little or no pain. There was a little swelling about the chin dur-

ing the first three days after the operation, but not the slightest uneasiness. In this way the case progressed, the gum healed in a few days, the jaw united strongly, and in the time bones usually unite, and the wearing of the plate was discontinued within six weeks after the operation was performed.

"The deformity of the jaw being now removed, the next thing to be done was to relieve the confined condition of the head, and the distortion of the face and neck resulting therefrom. This I determined to accomplish, if possible, after the manner of Prof. Mutter in similar cases, and I accordingly performed this operation on the 31st day of July, assisted by Dr. Frissell.

"I began by dividing the skin immediately in front of the neck, about half an inch above the sternum, and then carried the incision back about three inches on each side. I then commenced a careful division of the strictures, which were so thickened in front as to extend to the trachea, and on the sides as not only to involve the platysma, myodes, but a portion of the sterno cleido mastoideus muscle, also. After dividing every thing that interfered with the raising of the head, and the closing of the mouth, so far as the incision was now made, it became evident that to give free motion to the head, the incision on the neck must be extended back through the remaining cicatrix, which was at least two inches wide on one side; and about an inch and a half on the other; this was accordingly done, the whole presenting a wound upwards of nine inches in length, and nearly five in width. A thin piece of leather was now cut in the shape of the wound, but somewhat larger, and placing it upon the shoulder and arm, immediately over the deltoid muscle, a flap nearly ten inches in length, and five in breadth, having a neck or attachment two inches wide, was marked out, and then dissected up as thick as the parts below would permit. This flap was now brought around, and secured in the wound on the neck by the twisted sutures, the sutures were placed about an inch and a half apart; between each of these sutures, one, two and sometimes three small stitches were inserted depending entirely upon the number necessary to bring the edges neatly together. These stitches were of fine thread, had a very superficial hold, produced little or no irritation, and served to keep the parts in better apposition than any other means I could have devised. The wound on the shoulder was next drawn together about one half of its entire extent, the remainder was covered with lint. One long narrow strip of adhesive plaster, applied around the neck to support the flap, and over this a cravat tied in the usual way, constituted all the dressing deemed advisable at this time.

"The patient bore this tedious, and very painful operation with great fortitude, and without uttering scarce a murmur—she was somewhat exhausted, but not from the loss of blood—there was no vessel divided of sufficient importance to require a ligature.

"August 1st.—During the fore part of last night the patient was somewhat distressed—was very unmanageable—would talk incessantly, and occasionally sat up in bed. An anodyne was administered at 12 o'clock, after which she rested much better and slept some. Complains of sickness of the stomach this morning, has vomited three or four times—flap very pale—pulse rather weak. Patient directed to refrain from taking all kinds of drinks.

"2nd.—Patient complains of pain only in the shoulder, was much distressed the latter part of last night on account of a retention of urine. The catheter was employed, and about three pints of urine drawn off, after which she rested well. Pulse somewhat excited, flap better color.

"3d.—The patient rested well last night—the use of the catheter still necessary. All efforts to keep the patient

from talking and moving unavailing, color of the flap rather pale, save at the extreme point, and about two inches along the lower edge, which is assuming rather a dark blue color. Pulse about the same as yesterday—removed a pin from near the point of the flap, and enveloped the neck in cotton batting. Patient complains of hunger—chicken broth ordered.

"4th.—Patient rested well, the use of catheter still necessary, complains of slight head-ache, the color of the flap nearly natural, and even the point is assuming a healthy hue, and appears to be uniting, pulse almost natural.

"5th.—Urinates without difficulty, bowels moved by injection, patient entirely free from pain, pulse natural.

"6th —Dressing removed, the flap is uniting by the first intention along both sides throughout its entire extent, the greater part of the pins and stitches removed.

"7th.—The remainder of the pins and stitches removed, patient perfectly comfortable and cheerful.

"10th.—Sat up all day by the window.

"15th.—Walked out to take an airing.

"During the whole progress of the cure, there was not the slightest swelling or undue inflammation in the flap or about the neck. The patient was slightly hysterical the first few days, but never complained of any thing except pain on the shoulder, a slight headache of a few hours duration, and the uneasiness occasioned by the retention of urine. The wound on the shoulder granulated rapidly, and skinned over in about six weeks after the operation. It was curious to observe that upon touching the flap after it had healed in the neck, the patient would always refer the sensation to the shoulder or arm from which the flap was taken.

"The confinement of the head and distortion of the face occasioned by the strictures, being now removed; the next step was to relieve, as far as possible, a very great deformity of the under lip.

"The under lip from being dragged down, and greatly stretched by the former projection of the under jaw was rendered greatly too large, so much so that it pouted out an inch or more further than the upper lip. This, together with a turning out of the mucous membrane on the left side, which extended nearly down to the lower edge of the chin, making the lip too short on that side, was the nature of the deformity yet to be relieved.

"To relieve this unseemly appearance of the lip, the inverted portion was cut out in a V shape, extending down to the flap in the neck, and sufficiently large to reduce the lip to the proper size. The edges were then brought together and secured after the manner of a single hare-lip. The wound healed in the most beautiful manner, the appearance of the lip was greatly improved, but still there remained a deep depression or notch in the edge sufficiently large to keep exposed the tops of two or three teeth, besides preventing the coming together of the lips on that side.

"I now determined to raise, if possible, this depressed portion of the lip, and for this purpose passed a bistoury through the lip, about two lines from the free edge, first on one side of the depression, and then on the other, and then carried the incisions downward to meet at a point on the lower edge of the chin.

"The depressed portion of lip now lying between the two incisions was next dissected loose from the jaw and then raised on a level with the remainder of the lip, and there retained by pins, after the manner of dressing a double hare-lip, the line of union forming the letter V.

"This operation was as successful as the others and the original deformity being now removed, the young lady, though still carrying evidences of the burn, has the free use of her head, eye-

lids, jaws and lips, and may mingle in society without particular note or remark."

Jaw, Lower, Protrusion of. A deformity which gives to the face a morose and disagreeable appearance, often interfering with mastication, and frequently with prehension and distinct articulation. It also changes the natural relationship which the teeth sustain to each other when the mouth is closed. The cusps of the bicuspides, and protuberances of the molares of one jaw, instead of fitting into the depressions of the corresponding teeth of the other, are caused to strike upon their most elevated parts; at other times the outer protuberances of the lower molares and bicuspides, instead of fitting into the depressions of the same class of teeth in the upper jaw, strike on the outside of these teeth.

Although the effect of this description of deformity upon the lower part of the face, is similar to that which results from excessive development of the teeth and alveolar border of the lower jaw, it results from a different cause. It is occasioned, according to Dr. J. S. Gunnell, by a "natural partial luxation." and is of more frequent occurrence than the other, and requires an entirely different plan of treatment.

The plan of treatment proposed by Dr. Gunnell, and it is unquestionably the most successful that has ever been employed, consists in fastening a small block of ivory on one of the lower molares, thick enough to keep the front teeth about a quarter of an inch apart when the jaws are closed. He then puts on Fox's bandage, which he buckles "as tight as the patient can bear with convenience," pressing "the chin upwards and backwards." Then, if the teeth be irregular, he takes "a piece of tough wood of the shape of a narrow spoon-handle," which he introduces between the teeth and presses on the "outside of the front lower protruding tooth or teeth, and on the inside of the upper irregular teeth, firmly, for from five to ten minutes, two or three times a day, the lower end of the stick or piece of wood and hand being below the chin, thereby pressing the lower teeth inwards and backwards, and the upper teeth outwards and forwards. In this way," says Dr. G. "I have restored the face or jaws to their proper symmetry in one week, though occasionally it will take from three to six weeks or even longer."

When the protrusion of the lower jaw is accompanied by irregularity, Dr. G. very properly directs that means should, at the same time, be employed for remedying it. He also recommends that the operation for retracting the protruding jaw be performed as soon as the deformity occurs, though, he says, "it may be successfully remedied at any time previous to the age of puberty, and that he has done it, at a much later period, but that after the sixteenth year of age the operation becomes more difficult and tedious.

The author has never had occasion to adopt this practice but in one instance, and then he substituted a cap of gold for the block of ivory. The subject was a little girl about thirteen years of age. It proved perfectly successful in about five weeks.

But in cases where the lower front teeth shut over the upper, and thus cause a deformity of the face, it is important to discriminate correctly between those which result from malformation, and a protrusion of the jaw occasioned by partial luxation, as the remedial indications of the two are entirely different. Those which would prove successful in the one, would prove unsuccessful in the other.

Jaw, Upper, Operations on. As the manner of opening the maxillary sinus with a view of giving egress to accumulated matter, is described in another article, we omit a description of it in this place. See Maxillary Sinus, diseases of.

Excision of the Upper Jaw.

Malignant tumors, and tumors not *malignant,* but of large size; *caries, osteo-sarcoma, osteo-steatoma, fungous degeneration,* and *polypus* of the antrum, are regarded as indications demanding this operation.

The size of the tumor, and the nature and extent of the disease, will necessarily regulate, in a great measure, the direction of the incisions, and the whole process of the operation, so that only general rules can here be given, to be modified to suit individual cases. One invariable rule should be observed, whatever mode of incision be adopted, namely, to direct the cuts so as to cause the least possible disfiguration, but at the same time to thoroughly eradicate every diseased part.

If the morbid growth or tumor be about the size of an egg or walnut, and situated on the front part of the jaw, the patient should be placed in the sitting posture, as in excision of the lower jaw, and the head held by an assistant. Then, according to Mr. Ferguson, an incision is made from the margin of the upper lip to the root of the ala of the nose. This flap, with the mucous membrane, is dissected from off the tumor upwards, as far as may be necessary, and extending the first incision if required. An incisor, bicuspid, or molar tooth is then extracted, and the mucous membrane of the hard palate divided with the point of the knife; the alveolus is next notched with a small saw in front and behind, and the division and separation of the bone effected with the cutting forceps. If the tumor be of small size, it may be removed without dividing the lip, and it may be so large as to require the complete excision of the entire upper jaw.

For this formidable operation, Mr. Liston, who has repeatedly operated with success, adopts the following method. The extent of the disease being accurately ascertained, and the points of separation decided upon. Supposing the malar bone involved, the instruments employed are a *pair of straight tooth forceps,* a full *sized bistoury, copper spatula, powerful scissors, artery forceps,* a *small saw,* and *needles* for *interrupted* and *twisted suture.*

Thus armed, he commences the operation by extracting a central incisor tooth either on the affected side or the opposite, as the size of the tumor may require. The point of the bistoury is then carried from the external angular process of the frontal bone down to the corner of the mouth through the cheek; the incision being guided by placing the fore and middle fingers in the cavity of the mouth. A second incision is made along the zygoma, and connects with the first. The knife is now pushed through the integument to the nasal process of the superior maxilla, detaching the ala from the bone, and cutting the lip through in the middle line.

This flap is dissected up and held by an assistant; the soft parts, as the inferior oblique muscle, infra-orbitar nerve, and attached to the floor of the orbit are cut, and its contents supported by a narrow bent spatula.

The section of the bone comes next in order. This is done with the cutting forceps, dividing in succession the junction of the malar bone, the zygomatic arch, the nasal process of the superior maxilla, and then with strong scissors, after having notched the alveolar process, one blade is passed in the mouth, and the other in the nostril of the affected side, the palatine arch is cut through. At this stage the carotid artery, if necessary, is compressed. The tumor is now turned down from its bed, and the remaining attachments divided, preserving, if possible, the palatine plate of the palate bone with the velum palati. The branches of the internal maxillary being torn and stretched, may not require a ligature. The patient being now placed in a reclining posture, the cavity sponged out and examined, and

all vessels, whether bleeding or not that are seen, secured with a ligature, and the ends cut off. The space occupied by the tumor and removed structures are filled with lint and the edges of the wound united with either the interrupted or twisted suture. No dressing is applied—plasters, bandages, &c. being thought useless. In twenty-four hours some of the sutures are withdrawn and plasters then applied; in forty-eight hours they are all removed, the wound at this time having adhered.

Other methods have been proposed for excision of the upper jaw. Ferguson begins his incision from the margin of the upper lip, carries it to the nostril, and along the ala to within half an inch of the inner canthus; a second incision extends from the angle of the mouth to the zygomatic process, and a third, at right angles to this last, extending from the external angular process of the frontal bone towards the neck of the jaw. Gensoul lets fall a vertical incision from near the inner canthus, and divides the upper lip entirely through over the canine tooth; a transverse cut, beginning and level with the nostril, extends from this last to the fore part of the lobe of the ear. A third incision commencing about half an inch to the outer side of the external canthus, is carried down almost vertically and touching the outer extremity of the transverse incision. Two flaps are thus formed, the one superior and dissected upwards, the other inferior, and turned downwards.

Professor Warren and M. Velpeau use a single incision, similar in shape, and extending from the external canthus, at its temporal margin, to the angle of the mouth. From this incision a flap is dissected upwards from the surface of the bone, the ala detached from the nose, and the whole turned upwards towards the forehead. From the same incision another flap is turned downwards sufficiently to expose the malar and maxillary bones.

The use of the saw and cutting forceps, and if necessary, the chisel and mallet, together with the securing of the arteries by ligature and the actual cautery—in a word, the dressing of the wound in all these different methods is nearly the same as that already described.*

The author is indebted to professor Paul F. Eve, for a description of the following operations performed by himself.

The first was for the removal of a fibrous tumor of the superior maxillary bone, with polypus of the nose. "In July, 1835," says professor E., "I ligated the left carotid artery, removed a polypus from the left nostril, and dissected from the cheek of the same side, a fibrous tumor which was found attached to the outer surface of the left superior maxillary bone. This foreign growth had an osseous attachment, and was about the size of a guinea egg. The patient was a youth aged eighteen years. His parents inhabited a sickly district of South Carolina, and had recently lost five children; this their last was of a cachectic habit. The polypus returned the next winter and was removed a second time. In 1836, the patient visited New York to consult Dr. Mott, who ligated the right carotid. He is now a man of family, managing a large property."

The second operation was for the removal of nearly the whole superior maxillary bone for the removal of polypus of the antrum, which is thus described: "May, 1836, Mr. J. S., aged 21, was operated upon the third time for a large fibrous polypus of the right antrum highmorianum. In two previous attempts, the foreign growth had been attacked in the nostril, the antrum was opened, and the soft palate slit up, but without succeeding in its entire removal. In the third operation, a flap was

* Vide Liston's Practical Surgery; Ferguson's Practical Surgery; Pancoast's Operative Surgery; Chelius' System of Surgery, and Druit's Surgeon's Vade Mecum.

made by two incisions through the cheek and lip, this reflected over the eye; the maxillary bone of the right side thus exposed was separated between its first and second incisor teeth, then the nasal process of the same bone divided transversely, after which the alveolar processes with six teeth, (the wisdom tooth not being developed) was gradually detached. The palatine process of the superior maxilla, and the palatine plate of the palate bone were also removed, and as the fibrous tumor could not yet be pulled away, even by great force, it was separated by curved scissors from the basilar processes of the occipital and sphenoid bones, and also from the internal plate of the pterygoid process. The mass removed, weighed three ounces three and a half drachms. Three sutures were applied to the palate, and five to the face in dressing the wound. The latter united, but the former did not. The patient entirely recovered."

The operation in the third case consisted in the removal of nearly the whole of the right superior maxillary bone, for fungous hematodes of the antrum, but the affection was rapidly reproduced, and the patient died in two or three months after the operation. The fourth operation consisted in trepanning the antrum highmorianum, but as the tumor proved to be osseous, it was abandoned, and the patient died on the third day from symptoms of congestion of the brain.

In the fifth operation a portion of both the superior and inferior maxillary bones were removed for epulis, which was successful.

JAWS, MORBID GROWTHS OF. Both the upper and lower jaws are subject to a variety of morbid growths depending, says Mr. Liston, for their differences of structure "somewhat" upon the tissue in which they originate, "as the gum, the membranes of the teeth, the periosteum of the alveoli, the surface or the internal structure of the bones, or the membranes lining their cavities." All these different parts from external injury, or, according to Dr. Koecker, from some "accidental excitement or peculiar irritation" may become the seat of tumors of every size and consistency, both small and large, hard, soft, benign and malignant, and many of them have their origin traceable to dental irritation, arising either from disease, irregularity of, or badly performed operation upon, the teeth.

The most common of these morbid growths are *epulis, fibrous, fibro-cartilaginous, sarcomatous, osteo-sarcomatous* and *fungous tumors. Epulis* is a tumor, as its name implies, belonging to the gum, and is found mostly upon the lower jaw, though the upper is by no means exempt from it. It is invariably, says Mr. Ferguson, of a sarcomatous character, at one time "soft and spongy, at another of a more solid kind." Its size and extent varies. In its simple form, it is confined to the gum between two teeth. If neglected it involves several teeth and the alveolar processes. It is, says Mr. Liston, of slow growth, being most generally of firm consistence, and having its attachment broad and firm, "its surface, even large, is covered by smooth membrane, and is often unbroken, becomes lobulated, and unless it projects from the mouth and is exposed to injury, the teeth are loosened and present in various parts of the tumor." It is not generally of a malignant nature, and is to be distinguished from another tumor of the gum which is described as soft, of rapid progress, uneven surface, and giving out a fetid, bloody discharge, and which is decidedly malignant.

The treatment of epulis in its first stage is simple, it being only necessary to remove the exciting causes, which are generally decayed teeth, and extirpating the entire tumor with a strong knife and cutting forceps. If the tumor be of much size, and the alveolar processes much involved, it is recommended, in addition to extracting the teeth on each side, and cutting around it, to saw the

bone with a fine saw before using the forceps; and in some cases of large tumors, it is necessary to divide the cheek so as to obtain free access.

The *fibrous* and *fibro-cartilaginous* tumors are morbid growths common to both jaws, and also found in the maxillary sinus. According to Mr. Liston's experience, these tumors generally result from external injury, and have their origin in the bone and investing membrane, surface lobulated, structure of firm consistence; homogeneous, and not very vascular—decidedly fibrous, and containing spicula of bone or earthy matter. They are described as being surrounded by a dense cellular cyst, and from the enormous size they sometimes attain, displace the adjacent bones, and by pressure, cause their attenuation. The irritation arising from decayed and diseased teeth is probably the most frequent exciting cause.

In the advanced stages they fill the pharynx, and are not only troublesome, but exceedingly dangerous, as they interrupt both respiration and deglutition.

The only treatment, after they have attained considerable size, is complete excision of the diseased mass. This Mr. Liston confidently recommends from repeated successful operations, and says, "if the tumor be cut into instead of being cut beyond, there must necessarily ensue vast and alarming loss of blood, together with unwarrantable delay, and all to no purpose."

According to the extent of the diseased mass, either the whole of the superior maxilla, malar and palate bones, or a part of them may require removal. As a general rule, however, when opportunity offers before the tumor has attained a very large size, such local causes of irritation as may have been concerned in its production, should first be removed. For the mode of operating, see Jaw, Upper, operations on, and Jaw, Lower, operations on.

Osteo-Sarcoma. This morbid growth professor Warren describes as tuberculated, irregular, moderately hard, somewhat variable in size, connected with bone, and sometimes malignant; presenting externally a rounded form, of firm consistence, and enveloping the bone from which it originates. Its color is like the skin generally, though sometimes reddened and exhibiting enlarged veins.

As it enlarges, its hardness diminishes, and it assumes a greater or less amount of elasticity; softening as it increases in size, and varying in consistence, according to professor Warren, from day to day, in some instances.

A tuberculated surface is regarded as a characteristic indication of this kind of tumor, and it consists, according to the above named writer, of three elements: "1. The bone on which the tumor is placed. 2. The periosteum. 3. The medullary fungus contained in the periosteum," to which is added a fluid of varying consistence found in the cells of the periosteal cavity. These tumors belong more especially to the lower jaw, and may also attain an enormous size, involving either a part or the whole of the jaw. Their only treatment is excision. See Jaw, Lower, operations on.

Fungous tumors are of a malignant character. Professor Warren thus describes one of the maxillary sinus: "It begins with an uneasiness in the nose. After a time the nostril of the diseased side is obstructed, and the patient thinks he has a polypus. A red tumor is seen in the nostril, which is grasped by the forceps, gives out a copious discharge of blood. The obstruction increases, and is accompanied with pain. The nostril frequently bleeds without provocation. An offensive ichorous discharge issues from the anterior and posterior apertures of the nostrils. The face swells. The portion of maxillary bone which covers the antrum, protrudes and produces a horrible deformity. Sometimes the first protrusion of bone will be perceived in the mouth, from a depression of the palatine plate, pushed

downwards by the enlarging antrum. The molar teeth drop out, and are followed by a discharge of blood, which for the time gives some relief. As the tumor grows large the nostril of the opposite side becomes obstructed from the pressure of the septum into it. The external swelling of the maxillary bone assumes a sugar-loaf form and seems to be composed of bone and cartilage intermixed. Fistulous openings appear. The throat becomes obstructed from a posterior extension of the disease. The eye is sometimes protruded, and sometimes buried in the tumor." This species of morbid growth is always regarded as fatal. But for diseases of the antrum, see Maxillary Sinus, diseases of.

JE'CUR. The liver.

JEJUNI'TIS. Inflammation of the jejunum.

JEJU'NUM. From *jejunus*, empty. *Jejunum intestinum*. That portion of the small intestine comprised between the duodenum and ilium.

JELLY. Gelatine.

JERON, J. Author of a Practical Treatise on the Operations of Dental Surgery, published, Berlin, 1804.

JERUSALEM ARTICHOKE.—Helianthus tuberosus.

Jerusalem Oak. Chenopodium botrys.

Jerusalem Oak, American. Chenopodium anthelminticum.

Jerusalem Sage. Pulmonaria officinalis.

JESSAMINE. Jasminum officinalis.

JESUIT'S BARK. Cinchona bark.

JEUZE. Upon Difficult Dentition. Erfort, 1732.

JOBSON, DAVID WEMYSS. A Treatise on the Anatomy and Physiology of the Teeth, &c., &c.; their Diseases and Treatment, with Practical Observations on Artificial Teeth, and Rules for their Construction, by. London, 1835, and republished in Library part of American Journal of Dental Science, volume fourth.

Jobson's Lotions for the Gums. 1. ℞.—Tinct. myrrh, ʒ vi; mistu. camphorat., ʒ viij. M. 2. ℞.—Tinct. cinchonæ, ʒ ss; vini rubri susitan; aq. fortis ā ā, ʒ iij. M. 3. ℞.—Tincture myrrh, ʒ iv; tinct. cinchon., ʒ ss; infus. rosar., ʒ iv; aq. fortis, ʒ vi. M.

JOHNSON, ——. The Successful Treatment of an Alveolar Abscess connected with the nasal opening, of eight years standing, by. Published in vol. first of the New York Dental Recorder.

JOINT. Articulation.

Joint, Stiff. Anchylosis.

JOINTED. Articulated.

JOURDAIN. A celebrated French dentist of the eighteenth century, and author of three ably written treatises: The first, entitled, Treatise on the Depositions in the Maxillary Sinus, Fractures and Caries, with Reflections on all of the Operations of the Art of the Dentist, was published, Paris, 1761.—The second, Essay on the Formation of the Teeth, compared with that of bone, was published, Paris, 1766.—The third forms two large volumes, and is entitled, Treatise on the Diseases and Surgical Operations of the Mouth. &c., published, Paris, 1778. The last is a work of much practical value.

JOURDAN. New Elements of Odontology, by. Paris, 1756.

JOURDAN AND MAGGIOLO.—Manual of the Dentist's Art, by. Nancy, 1807.

JUDICATO'RII DIES. Critical days.

JUGAL PROCESS. The zygomatic process.

JUGALE OS. The cheek bone.

JUGA'LIS. From *jugum*, a yoke. Jugal. Belonging, or relating to, the cheek.

Jugalis Sutura. The suture which unites the malar bone with the maxillary. Also, the sagittal suture.

JU'GLANS. The name of a genus of plants.

Juglans Cinerea. Butter-nut.—White walnut.

JUGLANS REGIA. The walnut tree.

JUG'ULAR. *Jugularis;* from *jugulum*, the throat. Relating to the throat.

JUGULAR VEINS. Two veins, an *external* and *internal*, situated on the lateral and anterior part of the neck. The two unite and form, with the subclavian vein, the superior vena cava.

JU'GULUM. The throat.

JU'GUM PENIS. A compress for the urethra, formerly used to prevent the escape of urine in cases of incontinence.

JUJUBE. *Jujuba.* See Rhamnus Zizyphus.

JUJUBE PASTE. A paste formed with gum arabic and sugar, dissolved in a decoction of the fruit of the *rhamnus zizyphus*, or jujube.

JU'LEP. A name formerly applied to medicinal mixtures, as the camphor julep, *mistura camphoræ.*

JULY-FLOWER. Dianthus caryophyllus, or clove-pink.

JUNCKER. Dissertation on Affections of the Teeth, by.—2d. Difficulty of Teething.—3d. On Tooth-ache, &c. Halle, 1740, '45 and '46.

JUNKER. On Head and Tooth-ache, and the Remedies against them. Brunswick, 1802.

JUNCUS ODORA'TUS. *Andropogon schænanthus.* Juncus aromaticus. Sweet rush.

JUNGLE FEVER. A malignant remittent fever occurring in the jungle districts of India.

JUNIPER. Juniperus communis.

JUNIPER RESIN. A resinous substance which exhudes from the juniperus communis. It was supposed to be identical with sandarach.

JUNIPERUM VINUM. Wine impregnated with juniper berries.

JUNIP'ERUS. Juniper. The berries of juniperus communis. Also, the name of a genus of plants.

JUNIPERUS COMMU'NIS. The juniper tree.

JUNIPERUS LYCIA. A plant which was supposed to afford the *olibanum*, or true frankincense.

JUNIPERUS SABINA. The savin tree.

JUNIPERUS VIRGINIANA. Red cedar.

JUPITER. Tin.

JURIBALI. A tree of Asia.

JURISPRU'DENCE, MEDICAL. *Jurisprudentia medicalis;* from *jus, juris*, law, and *prudentia*, knowledge. Sometimes erroneously used as synonymous with *forensic medicine;* but at present generally restricted to a knowledge of the laws which regulate medical education and practice.

JUS. Animal broth. Soup.

JUSTI'CIA. The name of a genus of plants.

JUSTICIA ADHATO'DA. A plant of Ceylon.

JUSTICIA ECBO'LIUM. *Carim curini.* A Malabar plant.

JUSTICIA PECTORALIS. A West India plant.

JUVANS. *Juvantia;* from *juvo*, to assist. Means, medicinal or otherwise, which contribute to the relief or cure of a disease.

JUVENES'CENT. From *juvenis*, young. Becoming young.

JUXTA-POSI'TION. From *juxta*, near to, and *ponere, positum*, to place. Placed near to, or in contiguity, as the parts of a substance; application to the exterior; accretion, a mode of increase peculiar to minerals, which consists in the successive application of new molecules upon those that constitute the primitive nucleus.

K.

KAATH. Catechu.

KÆMPFE'RIA. The name of a genus of plants.

KÆMPFERIA GALANGA. The greater galangal root.

KÆMPFERIA ROTUN'DA. The officinal zedoary, a Ceylonese plant.

KAJEPUT. Cajeput.

KA'LI. Potash. The vegetable alkali.

KALI ACETATUM. Potassæ acetas.

KALI AERATUM. Potassæ carbonas.

KALI ARSENICATUM. Potassæ arsenias.

KALI CITRATUM. Potassæ citras.

KALI PRÆPARATUM. Potassæ subcarbonas.

KALI PURUM. Potassæ fusa.

KALI SULPHURATUM. Sulphuretum potassæ.

KALI TARTARIZATUM. Potassæ tartras.

KALI VITRIOLATUM. Potassæ sulphas.

KA'LIUM. Potassium.

KAL'MIA. The name of a genus of shrubs.

KALMIA ANGUSTIFO'LIA. Sheep laurel. Dwarf laurel.

KALMIA GLAUCA. Swamp laurel.

KALMIA LATIFO'LIA. Laurel. Mountain laurel. Broad-leafed laurel. Calico-bush.

KAMPHUR. Camphor.

KA'OLIN. The Chinese name for porcelain clay. It is disintegrated and decomposed feldspar. See Mineral Teeth.

KAREO. See Ripogonum Parviflorum.

KASSANDER. Convolvulus panduratus, or wild potato vine.

KAU'RI RESIN. Cowdie gum.

KEEP, SOLOMON. Solomon Keep, late dentist, of Boston, Mass., was admitted to the degree of M. D. at Harvard University in 1835, and having made himself thoroughly acquainted with dental surgery, he, subsequently, devoted himself to the cultivation and practice of this department of his profession, in which, while health continued, his success was brilliant and full of promise. His high moral character, his quick perception of the correct curative, or proper remedial indications, and the great accuracy and neatness of all his operations, both for the preservation of the natural teeth, and the replacement of these organs when lost, at once gave him high rank in his profession, and endeared him to a large circle of professional and social friends. He died on the 13th of December, 1848.

KELP. The impure mineral alkali.

KEMME. Dissertation on the History of the Teeth, Physiologically, Pathologically and Therapeutically considered, by. Helmst, 1740.

KENNEL-WORT. Scrofularia nodosa.

KER'MES. An insect found in many parts of Asia and the south of Europe. *Coccus ilicis.* They were, for a long time, mistaken for the seeds of the tree on which they live, and hence were called *grains* of *kermes.*

KERMES MINERAL. Precipitated sulphuret of antimony.

KETCHUP. A pickle prepared from the tomato, walnut and mushroom.

KEY FORCEPS, ELLIOT'S.—Two instruments invented by Dr. W. H. Elliot, of Montreal—one having the beaks of forceps and the handle of a key, for the extraction of teeth—the other is designed for the extraction of roots of teeth that present but one side above the alveolus. This resembles a pair of forceps—one beak serving as a hook, while the other is represented by a movable fulcrum.

KEY, BAKER & RILEY'S IMPROVED. An improvement, made by Messrs.

Baker & Riley, of Columbus, Ohio, on the common key instrument, consisting in having a mortice in the hook, and controlling the hook by means of a lever working in the mortice. The author has not seen the instrument, but it is recommended by the inventors as possessing great advantages over the ordinary key.

KEY OF GARENGEOT. An instrument invented by Garengeot in the early part of the eighteenth century for the extraction of teeth. It is an improvement on the ancient pelican. It is composed of a movable hook, attached transversely to a fulcrum or bolster, situated at the extremity of a steel-shaft. To the other extremity of this shaft, a handle is fixed transversely. This instrument, says Dr. Arnott, "may be regarded in the light of a wheel and axle; the hand of the operator acting on two spokes of the wheel, to move it, while the tooth is fixed to the axle by the claw, and is drawn out as the axle turns. The gums and alveolar process of the jaw, form the support on which the axle rolls." It also forms a lever of the first kind, as the tooth which is the resistance is situated between the fulcrum and the point of the hook, while the hand grasping the handle is the power.

But since the time of Garengeot, the key has underwent a number of improvements. In fact, almost every dentist has felt the necessity of modifying the instrument, in order to obviate the objections to which it is liable, but notwithstanding the ingenuity which has been displayed in the various improvements which have been made on it, they still exist. "The first material improvement," says Mr. Fox, "was made by Mr. Spence: it consisted in adding a projecting part at the end of the bolster, and through which the screw is passed. This addition was for the purpose of fixing a claw, in an advanced position, beyond the bolster, which was found extremely useful in the extraction of the dentes sapientiæ."

The round fulcrum and raised shaft are improvements made by Mr. Savigny, and more recently, Duval, added the movable bolster, but none of the above improvements have contributed very materially to enhance the value of the instrument, except that of the round fulcrum, which is certainly better than any that had been previously, or has since been employed.

The key, however, notwithstanding all the improvements which it has underwent, is rapidly falling into disuse, and being superseded by forceps.

KIASTER. *Chiaster*. A bandage having the form of the letter X, used by the ancients in fracture of the patella.

KID'NEY. The organ which secretes the urine. There are two, situated in the upper and back part of the abdomen in the lumbar region.

KIDNEY, INFLAMMATION OF. Nephritis.

KI'ESTEIN. A peculiar substance which forms on the urine of pregnant females after the third month of gestation.

KILOGRAMME. From χιλιοι, a thousand, and γραμμα, a gramme. The weight of one thousand grammes, or two pounds, eight ounces, one drachm, and twenty-four grains, troy.

KILOLITRE. From χιλιοι, a thousand, and λιτρα, a litre. A measure containing one thousand litres.

KINA KINA. Cinchona.

KING'S EVIL. Scrofula.

KINIC ACID. *Acidum kinicum*. Cinchonic acid.

KINKI'NA. Cinchona.

KI'NO. A gum-resin, obtained from different African and Indian plants, of a reddish brown or blackish color, of a bitterish taste, but without odor, and highly astringent.

KI'OTOME. *Kiotomus;* from χιων, a pillar, and τεμνειν, to cut. An instrument invented by Dessault, for dividing pseudo-membranous bands in the rec-

tum and bladder, and afterwards employed for the removal of the tonsils.

KIRCHWASSER. Cherry water. A liquor distilled from cherries.

KLOPEMA'NIA. *Kleptomania;*—from κλεπτω, I steal, and μανια, mania. Monomania, with an uncontrollable desire to steal.

KNAPP, DAVID P. David P. Knapp, late surgeon dentist of Danbury, Connecticut, was born August 13th, 1806. At an early age he acquired a thirst for medical knowledge, and especially medical botany, which became his favorite study. About the year 1830, he commenced the study of dental surgery under the tuition of the late Granville Meritt, and finished his pupilage under the instruction of Dr. G. W. Grant.

Uniting in his person much suavity of manner, and a gentlemanly deportment, he soon succeeded in gaining the confidence of the public, which he enjoyed to the day of his death. His early medical acquirements, natural ingenuity and mechanical tact, all greatly contributed to the skill which he soon acquired as a practitioner of dental surgery. In his native town, and by all who knew him, his memory is warmly cherished. He died from hemorrhage of the lungs, August the 22d, 1840, in the 34th year of his age.

KNEE. The articulation of the femur with the tibia.

KNEE, HOUSEMAIDS. Inflammation and swelling of the knee, occasioned by kneeling; a form of capsular rheumatism.

KNEE PAN. The patella.

KNEE-SCAB. The crusta genu equina.

KNIFE. A cutting instrument employed in *Surgery*, usually larger than the bistoury and scalpel.

KNIFE, AMPUTA'TING. A large straight knife used for the division of the soft parts in the amputation of a limb.

KNIFE, CAT'ARACT. A knife used for making the section of the transparent cornea, in the operation for cataract. Various knives have been invented for this purpose.

KNIFE, CHESELDEN'S. A knife with a concave edge and convex back employed by Cheseldon in the operation of lithotomy.

KNIFE, DOUBLE-EDGED. A catling. A straight double-edged knife.

KNOT, SURGEON'S. A double knot made by passing the ends of the ligature twice through the same noose.

KNOT GRASS. Polygonum aviculare.

KNOT ROOT. Collinsonia canadensis.

KOA-KOA. A New Zealand tree.

KOECKER, LEONARD. Principles of Dental Surgery, by. London, 1822. This work was republished in the Library part of the American Journal of Dental Science, and on dental pathology and therapeutics, is one of the best treatises that has ever issued from the English press. Dr. Koecker is also author of an Essay on the Diseases of the Jaws, published, London, 1834—and an Essay on Artificial Teeth, Obturators and Palates, published, London, 1832.—Besides the above, Dr. K. has contributed several valuable papers to the literature of dental surgery, one of which is entitled, Case of Extraordinary Fungous Disease of the Gums and Sockets of the Teeth; its Constitutional Effects, and Surgical Treatment.

KOENEN. Dissertation on the Principal Diseases of the Teeth, by. Franck, 1793.

KORE. Κορη. Core. The pupil of the eye.

KRAME'RIA. Rhatania.

KRANSE, R. W. On Odontalgia. Jenæ, 1780.

KREASOTE. Creasote.

KRAUTERMANN, VAL. Author of an Essay on the Treatment of the Eyes and Teeth, published, Arnstadt, 1732.

KREBEL, J. L. COTTIS. Inaugural Dissertation upon Difficult Dentition, by. Leipsic, 1800.

KUCHLER. Dissertation on Fistu-

lous Ulcers of the Teeth, by. Leipsic, 1733.

KULENKAMP. Dissertation on Difficult Dentition in Infants, by. Harderow, 1788.

KYLLO'SIS. From κυλλος, crooked. Club-feet.

KYNANCHE. Cynanche.

KYST. Cyst.

KYSTHOS. The vagina.

L.

LABDANUM. A gum-resinous substance, of a blackish-green color, bitter taste, and agreeable odor.

LABIAL. *Labialis.* Belonging to the lips.

Labial Arteries. The coronary arteries of the lips.

Labial Glands. The muciparous follicles on the inner surfaces of the lips beneath the mucous membrane.

LABIALIS. The orbicularis oris.

LABIATÆ. A natural family of plants whose corolla is divided into lips, or labiated.

LABIATE. *Labiatus.* Having lips.

LA'BIUM. The lip.

Labium Leporinum. Hare-lip.

Labium Pudendi. The sides of the orifice of the vagina, exterior to nymphæ.

LABOR. Parturition.

LAB'ORATORY. *Laboratorium;* from *laborare,* to work. A room or place for performing chemical and pharmaceutical operations.

Laboratory, Dental. See Dental Laboratory.

LABRUM. The extremities of the lip. Also the upper lip of insects.

LAB'YRINTH. *Labyrinthus.* In *Anatomy,* an assemblage of parts, consisting of several cavities, which constitute the internal ear.

LAC. Milk. Also, the name of a peculiar substance deposited by an insect on different species of trees.

Lac Ammoniaci. Mistura ammoniaci.

Lac Amygdalæ. Emulsio amygdalæ.

Lac Asafœtidæ. Mistura asafœtida.

Lac Avis. Albumen ovi.

Lac Guaiaci. Mistura guaiaci.

Lac Gum. Lacca.

Lac Lunæ. Marga candida.

Lac Seed. Lacca.

Lac Maris. Sperm; semen.

Lac Shell. Lacca.

Lac Stick. Lacca.

Lac Sulphuris. Sulphur præcipitatum.

Lac Terræ. Magnesia carbonas.

Lac Virginis. Virgin's milk.

LACCA. See Coccus Lacca.

LACER'ATED. Torn.

LACERA'TION. *Laceratio.* Lacerated; also, the act of being lacerated or torn.

LACH'RYMA. A tear.

LACH'RYMAL. *Lachrymalis;* from *lachryma,* a tear. Belonging, or pertaining to, tears.

Lachrymal Apparatus. The organs which secrete and conduct the tears, as the lachrymal gland, the puncta lachrymalia and ducts, &c.

Lachrymal Artery. A branch of the opthalmic artery distributed to the lachrymal gland.

Lachrymal Bone. The os unguis.

Lachrymal Canal. A canal in the outer wall of the nasal fossæ, lined by a continuation of mucous membrane from the lachrymal sac, and serving to convey the tears into the nasal fossæ.

Lachrymal Duct. The excretory duct of the lachrymal gland.

Lachrymal Fossa. A depression at

the upper part of the orbit which serves to lodge the lachrymal gland.

Lachrymal Gland. A glomerate gland situated in the lachrymal fossa.

Lachrymal Groove. A bony channel situated at the anterior part of the orbit, and serving as a lodgement for the lachrymal sac.

Lachrymal Nerve. A branch of the opthalmic nerve distributed to the lachrymal gland and upper eyelid.

Lachrymal Puncta. Two small orifices situated just within the ciliary margins of the eyelids, and continuous with the lachrymal ducts.

LACHRYMA'TIO. Involuntary discharge of tears. Also, profuse weeping.

LACINIA'TED. *Laciniatus.* Jagged; fringed.

LAC'MUS. Litmus.

LACON'ICUM. A stove or sweating room.

LAC'TATE. A salt formed by the union of lactic acid with a salifiable base.

LACTA'TION. From *lacteo*, I suckle, I give milk. The suckling of a young child or animal.

LAC'TEAL. *Lacteus;* from *lac*, milk. A chyliferous vessel.

LAC'TEUS. Milky; appertaining to milk.

LAC'TIC. Lacteus.

Lactic Acid. The acid of sour milk.

LACTIF'EROUS. From *lac*, milk, and *fero*, I carry. That which conveys milk, as the lactiferous vessels of the mamma.

Lactiferous Swelling. Tumefaction of the breast, from obstruction of one or more of the lactiferous vessels.

LACTIF'UGA. Medicines which dry up the secretion of milk.

LAC'TIN. Sugar of milk.

LACTU'CA. From *lac*, milk, called so from its milky juice. Lettuce. Garden lettuce. Also, the name of a genus of plants.

Lactuca Elongata. American wild lettuce.

Lactuca Graveolens. See Lactuca Virosa.

Lactuca Sativa. Garden lettuce.

Lactuca Scari'ola. Lactuca sylvestris.

Lactuca Virosa. *Lactuca graveolens.* The strong scented lettuce.

LACTUCA'RIUM. *Lactuca virosa.* Also, the inspissated juice of lactuca sativa.

LACU'NA. From *lacus*, a channel. The mouth of the excretory duct of a mucous gland.

LACUNOSUS. Dotted; pitted.

LACUS LACHRYMALIS. The lachrymal sac.

Lacus Lachryma'rum. The small space in the inner angle of the eye towards which the tears flow.

LADANUM. Labdanum.

LADIES' MANTLE. Alchemilla arvensis.

Ladies' Slipper, Yellow. Cypripedium luteum.

Ladies' Smock. Cardamine pratensis.

LADY-BIRD. Lady-bug. Coccinella septem-punctata. This insect was at one time supposed, in Germany, to possess powerful antiodontalgic virtues; it is highly recommended for this purpose, by Dr. Frederick Hirsch, dentist to several German courts. His method of applying them, consists in crushing them between the thumb and forefinger, rubbing them until a warmth is felt, then with the finger and thumb; when thus prepared, rubbing the tooth and gum around it.

LÆTIFICAN'TIA. From *lætifico*, I make glad. Medicines formerly employed as cordials for dispelling melancholy.

LAFORGUE. Seventeen articles relating to the diseases of the teeth, by. Paris, year VIII.—Theory and Practice of the Art of the Dentist, by. Paris, 1802 and 1810.—Laforgue is also the author of a work, on the Semiology of the Mouth, published, Paris, 1806, and of a Dissertation on First Dentition.

The above works contain much useful and valuable information; the one on the semiology of the mouth is particularly interesting.

LAGET'TA LINTEARIA. The Jamaica lace-bark tree.

LAGNE'SIS. From λαγνης, lustful. Nymphomania, and satyriasis.

LAGOCHEI'LUS. Hare-lip.

LAGOPHTHAL'MIA. From λαγως, a hare, and οφθαλμος, an eye. The hare's eye. An affection of the upper eyelid, which prevents it from covering the globe of the eye during sleep.

LAGOPO'DIUM. Plantago media.

LAGOS'TOMA. Hare-lip.

LAKEWEED. Polygonum hydropiper.

LALANDE'S TOOTH POWDER. Take pumice-stone, red coral, ā ā ʒ i; sandal citrin, ʒ ss; cream of tartar, ʒ iiss; cinnamon, cloves, ā ā ʒ i; myrtle, xviii grains; musk, benzoic acid, each six grains. Mix and pulverize to a fine powder.

LALANDE'S DENTIFRICE ELIXIR.—℞.—Rad. pyrethrium, ʒ i, ʒ ij; cloves, ʒ ss; flowers of lavender, ʒ ij; cochineal, ʒ ij; rock alum, ʒ ij; brandy of 22 degrees, ℔ iv, and ʒ iv; mix.

LAMBDOI'DAL SUTURE. *Sutura lambdoidalis.* The suture formed by the parietal bones and the occipital is so called, from its resemblance to the Greek letter Λ. The occipito-parietal suture.

LAMEL'LA. Diminutive of *lamina.* A thin plate.

LAM'INA. From ελαω, to beat off. A layer or plate, as a lamina, or flattened portion of bone.

LAMINA CRIBROSA. That portion of the sclerotic coat of the eye through which the branches of the opthalmic nerve and artery pass.

LAMINA SPIRALIS. The spiral plate of bone which winds round the modiolus of the cochlea.

LAMINATED. Lamellar; composed of laminæ.

LA'MIUM ALBUM. Dead nettle.

LAMP-BLACK. The soot obtained from the imperfect combustion of resin of turpentine.

LAMP FOR SOLDERING. The lamp most commonly employed for this purpose, consists of a tin or copper vessel about four inches in diameter and five or six in length, with an opening in the top large enough to receive the oil or alcohol, according as the one or the other is used, closed with a cork or cap, with a spout at the side, three or four inches long, and about three-fourths of an inch in diameter, filled with a cotton wick. See Blow-pipe, Parmly's self-acting. Also, Blow-pipe, Elliot's compound self-acting.

LA'NA. Wool. A hairy pubescence like wool.

LANA PHILOSOPHORUM. Oxyd of zinc.

LANA'TUS. Woolly.

LANCEOLA'TE. *Lanceolatus.*—Lance shaped; spear shaped.

LANCET. *Lancetta.* A lancet. A surgical instrument used for bleeding and other purposes.

LANCET, GUM. See Gum Lancet.

LAN'CINATING. *Lancinans;* from *lancinare,* to strike or thrust through. A sharp, darting pain, similar to that which would be produced by thrusting a lance into the part.

LAN'GUOR. Depression, or debility; a species of atony.

LANU'GO. Soft wool; down.

LAPARA. The flank.

LAPAROCE'LE. From λαπαρα, the lumbar region, and κηλη, a tumor. A rupture through the side of the abdomen. Lumbar hernia.

LAPARO-ENTEROT'OMY. *Laparo enterotomia,* from λαπαρα, the lumbar region, the abdomen, εντερον, intestine, and τομη, incision. The operation of opening the abdomen and intestinal canal.

LAPIS. A stone; also, a calculus.

LAPIS BEZOAR. Bezoar.

LAPIS CÆRULEUS. Lapis lazuli.

LAPIS CALAMINARIS. Calamine.

LAPIS CALCAREUS. Carbonate of lime.

LAPIS DENTIUM. Tartar of the teeth; salivary calculus.

LAPIS HÆMATITES. Hæmatites.

LAPIS HIBERNICUS. Irish slate.

LAPIS HYSTRICIS. Bezoar hystricis.

LAPIS INFERNALIS. Potassa fusa.

LAPIS LA'ZULI. Azure stone.

LAPIS LYDIUS. Lydian stone.

LAPIS PHILOSOPHORUM. The philosopher's stone.

LAPIS SIMIÆ. Bezoar simiæ.

LAPIS SPECULARIS. Selenite.

LAPIS SYDERITIS. The magnet.

LAP'PA. Arctium lappa.

LAPPULA HEPATICA. Agrimony.

LAPSA'NA. The name of a genus of plants.

LAPSANA COMMUNIS. Dock-cresses. Nipple wort.

LA'QUEUS GUT'TURIS. Inflammation of the tonsils with a sense of suffocation.

LARCH. Pinus larix.

LARD. Adeps suilla.

LARDA'CEOUS. Of the nature or consistence of lard. Applied to morbid alterations in textures of parts which resemble, or are of the consistence of, lard.

LARIX. The larch tree; pinus larix.

LARKSPUR, BRANCHING. Delphinium consolida.

LARVA. A mask. Also, a metabolian insect in its first stage after extrusion from the egg, and certain reptiles which undergo a similar change, when at a corresponding state of existence.

LARVALIS. Belonging, or pertaining to, larva.

LARYNGE'AL. *Laryngeus.* Belonging to the larynx.

LARYNGEAL ARTERIES. The branches of the thyroid arteries distributed to the larynx.

LARYNGEAL NERVES. These are two in number, a *superior* and *inferior*. The former is given off from the *pneumogastric*, in the upper part of the neck, and the latter from the *pneumogastric*, within the thorax.

LARYNGIS'MUS. A genus of disease, including spasmodic croup.

LARYNGI'TIS. Inflammation of the larynx.

LARYNGOG'RAPHY. *Laryngographia;* from λαρυγξ, the larynx, and γραφη, a description. A description of the larynx.

LARYNGOL'OGY. From λαρυγξ, the larynx, and λογος, a treatise. A treatise on the larynx.

LARYNGOPH'ONY. *Laryngophonia;* from λαρυγξ, the larynx, and φωνη, the voice. The sound of the voice in health as heard through the stethascope when placed over the larynx.

LARYNGOT'OMY. *Laryngotomia;* from λαρυγξ, the larynx, and τεμνειν, to cut. Bronchotomy. Tracheotomy. An operation which consists in opening the larynx for the removal of a foreign body or an obstruction of the glottis.

LARYNGO-TRACHEI'TIS. Cynanche trachealis.

LAR'YNX. A short tube of an hour-glass shape, situated at the forepart of the neck between the base of the tongue and trachea. It is composed of cartilages, ligaments, muscles, nerves, blood-vessels, and mucous membrane, and constitutes the apparatus of voice, in the higher vertebrata. The cartilages of the larynx are, the *thyroid*, the *cricoid*, two *arytenoid*, and the *epiglottis*.

The ligaments of the larynx are numerous and serve as bonds of union to the cartilages.

The muscles are the *cryco-thyroid*, the *crico-arytenoideus posticus*, the *crico-arytenoideus lateralis*, the *thyro-arytenoideus*, and the *arytenoideus*.

The opening into the larynx is triangular, and bounded in front by the epiglottis, behind by the artenoideus muscle, and on each side by a fold of mucous membrane, extending from the side of the epiglottis to the point of the arytenoid cartilage. The larynx is divided into two parts. The upper portion

is broad above and narrow below; the lower portion is narrow above and broad below.

The larynx is lined by mucous membrane, which forms in its ventricles a cæcal pouch, called the *sacculus laryngis.*

The larynx is supplied with arteries from the superior and inferior thyroid, and the nerves which go to it are derived from the superior laryngeal and recurrent laryngeal, branches of the pneumogastric.

LASERPIT'IUM. The name of a genus of plants.

Laserpitium Chiron'ium. Hercules' all-heal. Wound-wort.

Laserpitium Latifo'lium. White gentian.

Laserpitium Siler. Heart-wort.

LAS'SITUDE. *Lassitudo.* Languor; weariness; debility.

LA'TENT. *Latens;* from *latere*, to lie hid, lying hid, concealed. Hidden; not appreciable to the touch, as *latent heat, latent period*, &c.

Latent Period. The period before a disease, which is lurking in the system, manifests itself by any morbid phenomena.

LATERAL OPERATION. The lateral division of the prostrate gland and neck of the bladder in the operation of lithotomy.

LATERI'TIOUS. *Lateritius;* from *later*, a brick. A name applied to a sediment resembling brick-dust, which is sometimes deposited in the urine.

LATEX. In *Botany*, the proper or hidden juice of a plant, which circulates in anastomosing vessels, called the *laticiferous* tissue, or *cinenchyma.*

LATIB'ULUM. From *lateo*, I lie hid. The hidden matter of infectious diseases.

LAT'ICA. A quotidion remittent with long paroxysms.

LATIS'SIMUS COLLI. The platysma myoides.

Latissmus Dorsi. A broad, flat muscle covering the lower part of the back and loins. It arises from the spinous process of the seven inferior dorsal vertebræ, from all the lumbar and sacral spinous processes, a portion of the crest of the ilium, and the three lower ribs, and ascending, is inserted in the bicipital groove of the os humeri.

LATTICE-WORK. Cancelli.

LATUS. Broad.

Latus Ani. The levator ani.

LAUBMEYER. Dissertation on the Teeth, by. Regiom, 1745.

LAUD'ANUM. Thought to be from *laus*, praise, from its valuable properties. Tincture of opium.

Laudanum Abbatis Rousseau. Abbe Rousseau's drops. Wine of opium.

Laudanum Liquidum Sydenhami.—Wine of opium. Sydenham's laudanum.

Laudanum Opia'tum. Extract of opium.

LAUGH, SARDONIC. Canine laugh. Risus sardonicus.

LAURA'CEÆ. The cinnamon tribe of dicotyledonous plants.

LAUREL. See Laurus.

Laurel, Broad-Leaved. *Kalmia latifolia.* Mountain laurel.

Laurel, Cherry. *Prunus laurocerasus.* Poison laurel.

Laurel, Spurge. Daphne laureola.

Laurel Water. The distilled water of the prunus laurocerasus.

Laurel, White. Magnolia glauca.

LAURE'OLA. Daphne laureola.

LAURO-CERASUS. Prunus laurocerasus.

LAU'RUS. The laurus nobilis.—Also, the name of a genus of plants.

Laurus Camphora. The camphora officinarium.

Laurus Cassia. The wild cinnamon tree.

Laurus Cinnamomum. Cinnamon zeylanicum, the tree from which the cinnamon bark is obtained.

Laurus Nobilis. The sweet bay tree.

Laurus Persia. The tree which produces the *avigato pear.*

Laurus Pichu'rim. One of the

plants which produces the pichurim bean.

Laurus Sas'safras. The sassafras-tree.

LAUTIS'SIMA VINA. Wines strongly impregnated with myrrh.

LAVA'TION. Washing or sponging the body.

LAV'ENDER. A small shrub of two or three feet in height, the flowers of which have a strong fragrant odor, and an aromatic, pungent, bitterish taste.

LAVEN'DULA. Lavender. Also, the name of a genus of plants.

Lavendula Spica. The common lavender.

Lavendula Stæchas. French lavender.

LA'VER. The brook lime. Also, a sea-weed, *ulva lactuca*.

LAVIGNA. Fr. Observations on Odontalgia and the Cause of Caries, by. Turin, 1813.

LAVIPE'DIUM. From *lavo* to wash, and *pes*, the foot. A foot bath.

LAWRENCE'S PORTABLE BLOW-PIPE. An apparatus consisting of a double bellows, with a treadle for the foot fixed horizontally over it, with a hinge attached to one end, while the other is rendered stationary by a small hasp and staple. The bellows is made to rise and fall by the application of the foot to the treadle, and by means of two spiral brass springs attached to the machine. The air escapes through a long flexible tube, with a brass jet attachment, and by means of which the flame may be managed with great facility.

LAWSONIA INERMIS. Alcanna, an Indian and African plant.

LAX. A diarrhœa.

LAX'ATIVE. *Laxativus;* from *laxare*, to loosen. A mild purgative.

LAXA'TOR TYM'PANI. Laxator auris internus, a muscle of the internal ear.

Laxator Tympani Minor. A very small muscle extending from the upper part of the meatus auditorius externus to the handle of the malleus.

LAXITY. *Laxitas.* Atony. A relaxed condition.

LAZARET'TO. From *lazzero*, a leper. A solitary building in most large seaports, used for the disinfection of men and goods.

LEAD. *Plumbum.* A metal of a bluish-gray color, very soft, flexible, and inelastic, slightly maleable and ductile, but possessed of little tenacity.

Lead, Black. Plumbago.

Lead, Red. See Minium.

Lead, White. Plumbi subcarbonas.

LEADWORT. Plumbago europæa.

LEAF. Folium.

LEAFSTALK. The petiole.

LEANNESS. Emaciation.

LEAPING AGUE. A disease said to be peculiar to Scotland, and characterized by preternatural activity of both mind and body.

LEATHER. Tanno-gelatine. The tanned skins of animals.

Leather-Wood. Dirca palustris.

LECLUSE. Useful Treatise to the public for taking care of the Teeth, by. Nancy, 1750.—Essential directions for Preventing and Preserving the Teeth from Decay, Paris, 1775.—Lecluse is also author of a work entitled New Elements of Odontologia, and the new Abridged Practice of the Dentist, with many observations, published, Paris, 1764 and 1782.

LECTUA'LIS. Relating to a bed. Also, a long chronic disease.

LE'DUM. The name of a genus of plants.

Ledum Latifo'lium. Labrador tea.

Ledum Palus'tre. Marsh tea.

LEE, J. Author of a paper on the Extraction of Teeth, and of the report of a case of Dental Neuralgia; both published in the American Journal of Dental Science, volume eight.

LEECH. Hirudo.

LEEK. Allium porrum.

LEFOULON, J. A New Treatise on the Theory and Practice of Dental

Surgery, by. Paris, 1841. This work has been translated, by professor T. E. Bond, into English and published in the Library part of the fifth volume of the American Journal of Dental Science.

LEFOULON'S POWDER FOR THE TEETH. Take cochlearia, (scurvy grass,) horseradish, guaiacum, Peruvian bark, mint, pellitory, calamus, rhatany-root, reduce to an impalpable powder and pass through the finest hair sieve.

LEFOULON'S ELIXIR FOR THE MOUTH. Take, tincture of vanilla, 15 grammes; tincture pellitory, 128; spirit of mint, 32; spirit of rosemary, 32; spirit of rose, 64; mingle them together.

LEG. *Crus.* The portion of the lower extremity extending from the knee to the foot.

LEG, SWELLED. Phlegmasia dolens.

LEGNA. From λεγνον, a fringed edge. The orifice of the pudendum muliebre.

LEGROS. The Preserver of the Teeth, by. Paris, 1812.

LEGU'MEN. From *lego*, I gather. All kinds of pulse, as peas, beans, &c., are thus termed, because they are gathered by the hand.

LEGU'MINE. Vegetable casein.

LEGUMINO'SÆ. From *legumen*, a legume. A family of dicotyledonous polypetalous plants, with perigynous stamens; bearing leguminous fruit.

LEGU'MINOUS. Pertaining to a legume; applied to plants which have a legume for a pericarp.

LEICHNER, RICHARD. Author of a Dissertation on the Pain of the Teeth, published, Erfort, 1678.

LEIPHÆ'MA. Anæmia.

LEIPYR'IAS. From λειπω, I want, and πυρ, fire, or heat. A malignant fever, with great internal heat and coldness of the extremities.

LEMAIRE, JOSEPH. The Ladies' Dentist, by. Paris, 1812, 1818.—Two Observations on the Anatomy and Physiology of the Teeth, by. Paris, 1816.—Treatise upon the Teeth, Physiology, Pathology and Operations, by. Paris, 1822 and 1824. Lemaire is also author of a French translation of Fox's work on the teeth.

LEMAITRE. Author of a Report made to the Society of Inventions and Discoveries, on Perfect Sets of Teeth. Paris, 1784.

LEMON. Citrus medica.

LEMON ACID. Citric acid.

LEMONADE. Lemon juice diluted with water and sweetened with sugar.

LEMONIER. Dissertation on the Diseases of the Teeth, by. 1753 and 1783.

LEN'TITIVE. *Lenitivus;* from *lenis*, gentle. Assuaging medicines, or medicines which operate mildly.

LENOS. Torcular herophili.

LENS. The lentil; ervum lens. Also, a piece of glass or other transparent substance, so shaped as to be capable of converging or diverging the rays of light.

LENS, CRYSTALLINE. The crytalline lens of the eye.

LENTIC'ULA. Diminutive of *lens*, a lentil. A freckle; an ephelis. Also, a surgical instrument for removing sharp points of bone from the edge of a perforation, made with a trephine in the cranium.

LENTICULA MARINA. Sea lentil.

LENTIC'ULAR. *Lenticularis.*—Shaped like a lens.

LENTICULAR CATARACT. A cataract of the lens.

LENTICULAR GANGLION. The opthalmic ganglion.

LENTICULAR PAPILLÆ. The papillæ on the posterior part of the tongue.

LENTIFORM. Lenticular.

LENTI'GO. A freckle; ephelis.

LENTIL. Ervum lens.

LENTIL, SEA. Fucus natans.

LENTIN, LEBER BENJAMIN. On the Effects of the Electric Shock in Tooth-ache, by. 1756.

LEN'TOR. From *lentus*, clammy. Viscidity of any fluid.

LEONTI'ASIS. Elephantiasis.

LEON'TODON. The name of a genus of plants.

LEONTODON TARAX'ACUM. The dandelion.

LEONU'RUS. The name of a genus of plants.

LEONURUS CARDI'ACA. The motherwort.

LEOPARD'S-BANE. Arnica montana.

LEPID'IUM. The name of a genus of plants.

LEPIDIUM IBERIS. Sciatica cresses.

LEPIDIUM SATI'VUM. Dittander.

LEPIDOP'TERA. From λεπις, a scale, and πτερον, a wing. An order of insects which have scaly wings.

LEPIDOSARCO'MA From λεπις, a scale, and σαρκωμα, a fleshy tumor. A fleshy tumor, covered with scales.

LEPIDO'SIS. Scaly-skin. Scaly diseases.

LEPI'DOTE. Covered with scales.

LEPORI'NUM LABIUM. Hare-lip.

LEPORINUM ROSTRUM. Hare-lip.

LEPORI'NUS OCULUS. Lagophthalmia.

LEP'RA. From λεπρος, scaly. The leprosy. A term applied to various diseases.

LEPRA ARABUM. Tubercular elephantiasis.

LEPRA JUDAICA. Leprosy of Jews.

LEPRA MERCURIALE. Eczema mercuriale.

LEPRA NIGRICANS. A disease differing but little from lepra vulgaris.

LEPRA VULGARIS. A disease characterised by red shining elevations upon the skin, which continue to enlarge until they attain the size of a dollar, covered with a prominent scaly crust.

LEPRIASIS. Leprosy.

LEPROSY. Lepra.

LEPROUS. Affected with leprosy.

LEPTYS'MUS. Emaciation.

LE'PUS. A hare.

LERE'MA. Dotage.

LEROY, ALPHONSE. Means of Keeping and Preserving the Health of Children, particularly during the Dangerous Period of Dentition, &c., by. Vienna, 1786.

LEROY, (DE LA FAUDIGUERE.) Method of Preventing and Curing the Diseases of the Teeth and Gums, by. Paris, 1766.

LE'SION. From *læsus*, hurt, injured. An injury. Any alteration in the structure, or functions, of an organ.

LE'THAL. *Lethalis*. Mortal. Pertaining to death.

LETHAR'GIC. *Lethargicus*. Pertaining to lethargy.

LETH'ARGY. *Lethargus*; from ληθη, forgetfulness. Excessive drowsiness; a constant sleep from which it is almost impossible to arouse the individual.

LETHEON. The inhalation of ether or chloroform.

LETHUM. Death.

LETTUCE. Lactuca.

LEUCE. From λευκος, white. A variety of leprosy.

LEU'CINE. A white substance resulting from the action of potash on proteine.

LEUCO'MA. From λευκος, white. A white speck caused by the healing of a wound in the cornea.

LEUCOPATH'IA. The condition of an albino.

LEUCOPHLEGMA'SIA. From λευκος, white, and φλεγμα, phlegm. A tendency to dropsy, characterized by paleness of the skin, and a flabby state of the solids, resulting from a redundancy of serum in the blood.

LEUCOPHLEGMAT'IC. Having a tendency to, or affected with, leucophlegmasia.

LEUCOPY'RIA. Hectic fever.

LEUCORRHŒA. From λευκος, white, and ρεω, I flow. Fluor albus. The discharge of a whitish mucus from the vagina, arising from debility.

LEVA'TOR. From *levo*, to lift up. Applied to muscles which lift the parts to which they are attached.

Levator Anguli Oris. A muscle which arises from the canine fossa of the superior maxillary bone, below the infra orbitar foramen, and inserted into the angle of the mouth.

Levator Ani. A muscle of the rectum.

Levator Ani Parvus. The transversus perinei muscle.

Levator Coccygis. The coccygeus muscle.

Levator Labii Inferioris. A muscle of the lower lip. It arises from the alveolar processes of the incisor teeth of the lower jaw, and is inserted into the lower lip and chin.

Levator Labii Superioris Alæque Nasi. This muscle arises by two heads: first, from the nasal process of the superior maxillary bone; second, from the edge of the orbit above the infra-orbitar foramen, and is inserted narrow into the angle of the mouth.

Levator Labii Superioris Proprius. A thin quadrilateral muscle which arises from the lower edge of the orbit, and is inserted into the upper lip.

Levator Oculi. Rectus superioris oculi; a muscle of the eye.

Levator Palati. A muscle of the soft palate. It arises from the point of the petrous bone and adjoining portion of the eustachian tube, and is spread out in the structure of the soft palate.

Levator Palpebræ Superioris. A muscle of the upper eyelid, which it opens by drawing it upward.

Levator Scapulæ. Levator proprius scapulæ, a muscle situated on the posterior part of the neck.

LEVEILLE. Memoir upon the Connections between the First and Second Dentitions, and the Favorable Dispositions of the Last to the Development of the Jaws, by. Society of Emulation, vol. seventh.

LEVEQUE. Notice upon the Necessity of Directing the Dentition of Infants. Care Necessary to Prevent their Diseases, by. Strasbourg, 1823.

LEVER. From *levare*, to lift up. One of the simplest of the mechanical powers, and consists of an inflexible rod or bar, supported on, and movable round a fixed point, called a *fulcrum*. The fulcrum is the support of the lever, and constitutes the axis around which it turns. The force which moves the lever is called the *power*, and the weight to be raised, the *resistance*. When the *fulcrum* is placed between the *power* and the *resistance*, it is called a *lever* of the *first kind:* when the *resistance*, or *weight* to be raised, is between the *fulcrum* and the *power*, it is called a *lever* of the *second kind*. A *lever* of the *third kind* has the *power* between the *fulcrum* and *resistance*. The *punch* and *elevator*, used by dentists in the extraction of teeth are levers of the first kind, as is also the key of Garengeot.

LEVIGA'TION. *Levigatio;* from *levigare*, to polish. The reduction of hard substances to a very fine powder.

LEVISON, J. L. Premature Dentition and Supernumerary Teeth, by—published in the London Forceps, and copied into volume eighth of the American Journal of Dental Science.

LEWIS. Author of an Essay on the Formation of the Teeth, with a Supplement containing the Means of Preserving them. London, 1772.

LIA'TRIS SPICA'TA. Button snake root, an indigenous plant found in meadows and moist grounds in the middle and southern states.

LIBA'DIUM. The lesser centaury.

LIBANO'TIS. Rosemary.

LIBANUS. Juniperus lycia. The cedar of Lebanon.

LIBRA. A pound.

LI'CHANUS. The index or forefinger.

LICHEN. Λειχην, or λιχη, *lichen*. In *Pathology*, a cutaneous affection, or eruption of papulæ, terminating in scurf, and giving to the skin the aspect of a vegetable lichen. There are several varieties of the disease.

Lichen A'grius. A disease characterized by clusters of papulæ of a red

color, which appear on the arms, neck, back, face, upper part of the breast and sides of the abdomen, attended with inflammation, itching, and a painful tingling sensation.

Lichen Circumscrip'tus. An eruption characterized by patches of papulæ, with a well defined margin, and of an irregular circular form; sometimes continuing for several weeks.

Lichen Livi'dus. An eruption of a dark-red color, or livid papulæ.

Lichen Pilaris. A papular eruption which makes its appearance about the roots of the hair.

Lichen Simplex. An eruption of red papulæ on the face, or arms, and sometimes extending over the body, accompanied by an unpleasant tingling sensation.

Lichen Tropicus. Prickly heat.

LICHEN. In *Botany*, the name of a genus of plants.

Lichen Caninus. The ash-colored ground liverwort.

Lichen Islandicus. Iceland moss.

Lichen Marinus. See Ulva Lactuca.

Lichen Olivarius. The tree liverwort.

Lichen Pulmonarius. Pectoral moss. The lung-wort.

Lichen Pyxidatus. The cup moss.

Lichen Roccella. Canary archel.

LICHENS. Plants which grow on the bark of trees or rocks, forming a sort of incrustation, or upon the ground, forming irregular lobules with the surface of the earth. They have a very low organization.

LIDDELIUS. On the Golden Tooth of the Silesian Boy. Hamb., 1626.

LI'EN. From λειος, soft or smooth. The spleen.

Lien Sinarum. Nymphæa nelumbo.

LIEN'TERY. From λειος, smooth, and εντερον, intestine. A diarrhœa; frequent evacuations of half digested food.

LIFE. Βιος; *vita*. The exhibition of those phenomena which characterize organized beings from inanimate and inorganic bodies.

Life-Everlasting. Gnaphalium margaritaceum.

LIG'AMENT. *Ligamentum;* from *ligare*, to bind. A fibrous cord, or elastic and strong membrane which serves to connect bones, and to form articulations. Ligaments are of a dense white structure, and are divided into *capsular* and *connecting*. The former surrounds joints like a bag, and prevents the escape of the synovial fluid—the latter, strengthens the union of movable bones.

LIGAMENTS, CRUCIAL. Two ligaments of the knee joint—the *anterior*, or *external*, and the *posterior*, or *internal*.

Ligaments, Lateral. The ligaments at the side of a joint.

Ligaments, Annular. A ring-shaped ligament of the ankle and wrist.

LIGAMENTA ALA'RIA. Alar ligaments. Two short and thick ligaments of the knee joint.

Ligamenta Interspinalia. The interspinous ligaments of the vertebræ.

Ligamenta Intertransversa'lia.—The intertransverse ligaments of the vertebræ.

Ligamenta Radiata. The ligaments which pass between the inner extremity of the clavicle and the sternum, and those which pass from the extremities of the cartilages of the ribs over the sternum.

LIGAMENTUM, ARTERIOSUM. The ductus arteriosus, which assumes the nature of a ligament after birth.

Ligamentum Brachio-Cubitale.—The brachio-cubital ligament.

Ligamentum Brachio-Radiale.—The brachio-radial ligament.

Ligamentum Capsular. A ligament which surrounds a joint like a bag.

Ligamentum Ciliare. The bond of union between the external and internal tunics of the eyeball. See Ciliary Ligament.

Ligamentum Conoides. The coraco-clavicular ligament.

Ligamentum Deltoides. The internal lateral ligament of the ankle.

Ligamentum Denticulatum. A ligament extending the whole length of the spinal marrow.

Ligamentum Dentis. A name given by Mr. Calwell to that portion of the gum which is attached to the neck of a tooth. See Gums.

Ligamentum Interclaviculare. A cord-like band extending from the extremity of one clavicle to the other.

Ligamentum Interosseum. The ligaments which unite the radius and ulna, and tibia and fibula.

Ligamentum Latum. The suspensory ligament of the liver and that of the uterus.

Ligamentum Nuchæ. The cervical ligament.

Ligamentum Orbiculare. The ligament which connects the neck of the radius to the ulna.

Ligamentum Ovarii. A round cord of muscular fibres derived from the uterus.

Ligamentum Posticum Winslovii. A broad expansion of ligamentous covering of the knee joint.

Ligamentum Poupartii. Poupart's ligament.

Ligamentum Rhomboides. The ligament which binds the clavicle to the first rib.

Ligamentum Rotundum. The round ligament of the uterus.

Ligamentum Teres. The round ligament of the hip joint.

Ligamentum Trapezoides. The coraco-clavicular ligament.

Ligamentum Triangulare. A ligament of the scapula.

LIG'ATURE. *Ligatura;* from *ligo*, I bind. A thread of silk used for tying arteries, removing tumors, uniting the edges of a wound, &c. For some purposes fine gold or silver wire is used as a substitute for silk. Ligatures have also been employed for the retention of artificial teeth in the mouth; at present, however, they are not used for this purpose.

LIGHT. *Lux. Lumen.* The agent which produces vision, or a perception of other bodies by depicting their image on the retina of the eye.

Light Carbureted Hydrogen.—Carbureted hydrogen gas.

LIGNE'OUS. *Ligneus.* Woody.

LIG'NIN. *Lignine;* from *lignum*, wood. The fibres of wood divested of all impurities.

LIG'NUM. Wood.

Lignum Aloes. Aloes wood.

Lignum Braziliense. Cæsalpina. The Brazil woods used in dying.

Lignum Calambac. Lignum aloes.

Lignum Campechense. The log-wood tree.

Lignum Colubrinum. The wood of a tree of India. Strychnos colubrina.

Lignum Indicum. Guaiacum.

Lignum Moluccense. Croton tiglium.

Lignum Nephriticum. Guilandina.

Lignum Santali Rubri. Pterocarpus.

Lignum Serpentinum. Ophioxylum.

Lignum Vitæ. Guaiacum officinale.

LI'GULA. The clavicle; also, the glottis, and a measure containing ten scruples.

LIGUS'TICUM. The name of a genus of plants.

Ligusticum Levis'ticum. Lovage.

Ligusticum Podagra'ria. Gout weed.

LIGUS'TRUM. The name of a genus of plants.

Ligustrum Vulga're. Privet.

LILIACEÆ. A family of endogenous plants, including the lilies, hyacinths, &c.

LILIA'CEOUS. Resembling the lily.

LILIA'GO. Spiderwort; liliastrum.

LILIUM. The name of a genus of plants.

Lilium Can'didum. Lilium album. The white lily.

Lilium Conval'lium. The lily of the valley.

Lilium Marta'gon. The martagon lily.

LILY. Lilium.

Lily, May. Convallaria majalis.

Lily, Water. Nymphæa alba.

Lily, White. Lilium candidum.

Lily of the Valley. Convallaria majalis.

LIMA. Many Observations upon a New Means of Curing certain Pains of the Teeth, by. Lyons, 1778.

LIMATU'RA. From *lima*, a file. File-dust; filings.

Limatura Ferri. Iron filings.

Limatura Stanni. Tin filings.

LIMAX. The slug, or snail.

LIMB. A member.

LIME. Citrus limetta; a fruit like a small lemon.

LIME. *Calx*. The oxyd of calcium.

Lime, Carbonate of. Creta.

Lime Water. Calcis liquor.

LIMONADA. Lemonade.

LIMONIA MALUS. The lemon.

LIMO'NIUM. The lemon. Also, buckwheat, and statice limonium.

LIMOSIS. From λιμος, hunger. A morbid appetite. Also, a genus of disease in the class *cœliaca*, order *enterica*, of Dr. Good, characterized by excessive, or depraved appetite.

Limosis Avens. Insatiable appetite.

Limosis Expers. Anorexia.

Limosis Helluonum. Gluttony.

Limosis Pica. Malacia.

LIMOTHERAPEI'A. From λιμος, hunger, and θεραπεια, treatment. The cure of disease by fasting, or abstinence from food.

LIMPID. *Limpidus*; from λαμπω, to shine. Clear; pure; transparent.

LINA'CEÆ. The flax tribe of dicotyledonous plants.

LINAMEN'TUM. From *linum*, linen. Lint.

LINC'TUS. From *lingo*, to lick. In *Pharmacy*, applied to a soft substance, like honey, which may be licked from a spoon.

LINDEN TREE. Tilia.

LINDERER, C. J. and J. Authors of a Treatise on Dental Anatomy, Physiology, Therapeutics and Surgery, published, Berlin, 1842.

LINE. *Linea*. That which has length, without breadth or thickness.

Line, Median, of the Body. An imaginary line, beginning at the top of the head and falling between the feet, dividing the body vertically into two equal parts.

LIN'EA. From *linum*, a thread. A line. In *Anatomy*, applied to parts which have a line-like appearance.

Linea Alba. A tendinous cord or line, extending from the ensiform cartilage of the sternum to the navel, and from thence to the symphysis pubis.

Linea As'pera. The rough projection along the posterior surface of the femur.

Linea Ilio-Pectinea. A sharp ridge on the lateral edge of the brim of the pelvis, called also, *linea innominata*.

LINEÆ SEMILUNA'RES. The lines on the outer margins of the recti muscles of the abdomen.

Lineæ Transversæ. The lines that cross the recti muscles of the abdomen.

LIN'EAMENT. *Lineamentum;* from *linea*, a line. A feature; the form, or outline which marks the particular character of the countenance, and distinguishes the features of the face of one person from another.

LIN'EAR. *Linearis*. In *Surgery*, fractures which exhibit the appearance of a line.

LINEATUS. Lineate; streaked; having lines.

LINE'OLA. Diminutive of *linea*, a line. A small line.

LIN'GUA. From *lingo*, to lick up. The tongue.

Lingua Avis. Sparrow's tongue.

Lingua Canina. Hound's tongue.

Lingua Cervina. Hart's tongue.

LINGUAL. *Lingualis*. Relating, or belonging, to the tongue.

Lingual Artery. A branch of the external carotid artery.

Lingual Nerve. The hypoglossus nerve. Also, a branch of the inferior maxillary.

LINGUA'LIS. *Basio-glossus muscle.* A long, small muscle, passing from the root to the tip of the tongue.

LINGULA. Ligula.

LIN'IMENT. Linimentum.

Liniment, Anodyne. Linimentum opii.

Liniment of Mercury. Linimentum hydrargyri compositum.

Liniment, Volatile. Linimentum ammoniæ.

LINIMEN'TUM. From *linire*, to anoint. A liniment; an unctuous medicine, to be applied externally by means of friction.

Linimentum Ammoniæ. Liniment of ammonia. Volatile liniment.

Linimentum Ammoniæ Compositum. Compound liniment of ammonia.

Linimentum Ammoniæ Sesquicarbonatis. Liniment of sesquicarbonate of ammonia.

Linimentum Calcis. Liniment of lime.

Linimentum Camphoræ. Camphor liniment.

Linimentum Camphoræ Compositum. Compound camphor liniment.

Linimentum Cantharidis. Liniment of Spanish flies.

Linimentum Hydrargyri Compositum. Compound liniment of mercury.

Linimentum Opii. Liniment of opium. Anodyne liniment.

Linimentum Saponis Camphoratum. Camphorated soap liniment.

Linimentum Simplex. Simple liniment.

Linimentum Terebinthinæ. Liniment of turpentine.

LINNÆ'A. The name of a genus of plants.

Linnæa Borea'lis. A plant which has a bitter, sub-astringent taste.

LINNÆAN SYSTEM. The sexual system of plants, so called from the name of the founder of it, Linnæus.

LINSEED. The linum usitatissimum.

LINT. *Linteum. Charpie.* A soft, flocculent substance, made by scraping old linen cloth, or rags.

LI'NUM. Linseed. Also, the name of a genus of plants.

Linum Cathar'ticum. Purging flax.

Linum Usitatis'simum. Common flax.

LINTOTT, WILLIAM. Author of a Treatise on the Structure, Economy, and Pathology of the Human Teeth, with careful instructions for their preservation and culture; and concise descriptions of the best modes of surgical treatment; equally adapted to the use of the medical practitioner, the student in medicine, and of the public. London, 1841.—On the exchange of the deciduous for the permanent incisor teeth, published in the London Forceps.

LIP. *Labium.* The two, circumscribe the anterior opening of the mouth, and are distinguished into upper and lower.

LIPS, CHARACTERIS'TICS OF. "The lips," says Delabarre, "present marked differences in different constitutions. They are thick, red, rosy or pale, according to the qualities of the arterial blood that circulates through their arteries."

Firmness of the lips, and a pale rose color of the mucous membrane that covers them, are, according to Laforgue, indicative of pure blood, and, as a consequence, of a good constitution. Redness of the lips, deeper than that of the pale rose, is mentioned by him, as one of the signs of sanguino-serous blood. Soft pale lips, are indicative of lymphatico-serous dispositions. In these subjects the lips are almost entirely without color. When there is a sufficiency of blood the lips are firm, though variable in color, according to the predominancy of the red or serous parts of this fluid.

Both hardness and redness of the lips, and all the soft parts of the mouth, are enumerated among the signs of plethora. Softness of the lips, without change of

color in their mucous membrane, is spoken of by this last author as indicative of deficiency of blood; and, softness and redness of the mucous membrane of the lips are signs that the blood is small in quantity and sanguino-serous.

Serous *anemie* and pale blood are indicated by want of color and softness of the lips, and general paleness of the mucous membrane of the whole mouth.

"The fluids contained in the vessels," says Laforgue, "in the three foregoing forms of anæmia, yield to the slightest pressure, and leave nothing between the fingers but the skin and cellular tissue."

In remarking upon the signs of the different qualities of the blood, the above mentioned author asserts that the constitution of children, about the age of six years, cannot, by a universal characteristic, be distinguished, but that the lips, as well as other parts of the mouth constantly betoken the "quality of the blood and that of the flesh;" and "consequently, they proclaim health or disease, or the approach of asthenic and adynamic disorders, which the blood either causes or aggravates."

Again, he observes, that the blood of all children is "superabundantly serous," but that it is redder in those of the second constitution than it is in those of any of the others; and that this is more distinctly indicated by the color of the lips. "This quality of the blood," says he, "is necessary to dispose all the parts to elongate in their growth. When the proportions of the constituent elements of the blood are just, growth is accomplished without disease. If the proportions are otherwise than they should be for the preservation of the health, or if one or more of its elements be altered, health no longer exists, growth is arrested altogether, or is performed irregularly. The nutritive matter is imperfect—assimilation is prevented or impaired. On the other hand, disintegration decomposes the patient: if death does not sooner result, it will consume him by the lesion of some vital organ."*

To the correctness of the foregoing observations, every experienced and inquiring dental practitioner can bear witness. The changes produced in the color of the blood by organic derangements are at once indicated by the color of the lips.

The accuracy of Laforgue's observations on the indications of the physical characteristics of the lips has been fully confirmed by subsequent writers. Delabarre, in his remarks on the semeiology of the mouth, has added nothing to them.

"The secretion of the lips," says professor Schill, "has a similar diagnostic and prognostic import to that of the tongue and gums. They become dry in all fevers and in spasmodic paroxysms. A mucous white coating is a sign of irritation or inflammation of the intestinal canal; accordingly, this coating is found in mucous obstructions, in gastric intermittent fever, in mucous fever, and before the gouty paroxysms. A dry brown coating of the lips is a sign of colliquation in consequence of typhus affection; it is accordingly observed in typhus, in putrid fever, in acute exanthems, and inflammations which have become nervous."†

The appearance of the lips, however, do not present so great a variety as those of other parts of the mouth, for the reason that they are not as subject to local diseases, but their general pathognomic indications are, perhaps, quite as decided.

LIPA'RIA. Obesity.

LIPAROCE'LE. From λιπαρος, fat, and κηλη, a tumor. A fatty tumor, especially in the scrotum.

LIPO'MA. From λιπος, fat. An encysted fatty tumor.

LIPOTH'YMY. *Lipothymia;* from λειπω, to fail, and θυμος, soul. Syncope.

*Vide *Semeiologie Buccale et Buccamancie.*
†Vide *Pathological Semeiology*, p. 152.

LIPPITU'DO. From *lippus*, bleareyed. Bleared eyes. A chronic inflammation of the tarsal edges of the eyelids and a discharge of puriform matter.

LIQUA'TION. The separation of tin, lead, &c., by melting.

LIQUEFA'CIENT. *Liquefaciens;* from *liquidus*, a liquid, and *facere*, to make. That which has the property of liquefying solids, as mercury, iodine, &c.

LIQUEFAC'TION. *Liquatio*; *liqueficatio*. The conversion of a solid into a liquid.

LIQUEUR. An aromatic preparation of distilled spirits.

LIQUID. *Liquidum*. A flowing substance; a feebly elastic fluid.

LIQUIDAM'BAR. The name of a genus of plants.

Liquidambar Styracif'lua. The tree which affords the liquidambar and liquid storax.

LIQUOR. From *liqueo*, to become liquid. A name given to many compound fluid medicinal preparations.

Liquor Æthere'us Oleo'sus. Ethereal oil. Heavy oil of wine. Sulphate of ether and etherine.

Liquor Æthereus Sulphu'ricus. Sulphuric ethereal liquor. Unrectified sulphuric ether.

Liquor Aluminis Compositus.—Compound solution of alum.

Liquor Ammoniæ. Water of ammonia.

Liquor Ammoniæ Acetatis. Solution of acetate of ammonia.

Liquor Ammoniæ Sesquicarbonatis. Water of carbonate of ammonia.

Liquor Argenti Nitratis. Solution of nitrate of silver.

Liquor Arsenicalis. See Liquor Potassæ Arsenitis.

Liquor Barii Chloridi. Solution of chloride of barium. Solution of muriate of baryta.

Liquor Calcii Chloridi. Solution of chloride of calcium. Solution of muriate of lime.

Liquor Calcis. Lime water.

Liquor Cupri Ammonio'sulphatis. Solution of ammoniated copper.

Liquor Ferri Iodidi. Solution of iodide of iron. Syrup of iodide of iron.

Liquor Ferri Ternitratis. Solution of ternitrate of iron.

Liquor Hydrargyri Bichloridi. Solution of bichloride of mercury.

Liquor Iodini Compositus. Compound solution of iodine.

Liquor Morphiæ Sulphatis. Solution of sulphate of morphia.

Liquor Plumbi Diacetatis. See Liquor Plumbi Subacetatis.

Liquor Plumbi Subacetatis. Solution of subacetate of lead.

Liquor Potassæ. Solution of potassa.

Liquor Potassæ Arsenitis. Solution of arsenite of potassa. Arsenical solution. Fowler's solution.

Liquor Potassæ Carbonatis. Solution of carbonate of potassa.

Liquor Potassæ Chlorinatæ. Solution of chloride of potassa.

Liquor Potassæ Citratis. Solution of citrate of potassa. Neutral mixture.

Liquor Potassæ Effervescens. Effervescing solution of potassa.

Liquor Potassii Iodidi Compositus. Compound solution of iodine.

Liquor Sodæ Chlorinatæ. Solution of chlorinated soda. Solution of chloride of soda. Labarraque's disinfecting soda liquid.

Liquor Sodæ Effervescens. Effervescing solution of soda.

Liquor Tartari Emetici. Antimonial wine.

LIQUORICE. Glycirrhiza.

LIRIODEN'DRON TULIPIF'ERA. The tulip-tree.

LITHAGO'GUE. *Lithagogus;* from λιθος, a stone, and αγω, to bring away. Medicines supposed to have the power of expelling urinary calculi.

LITHARGE. See Lithargyrum.

Litharge Plaster. Emplastrum lithargyri.

LITHAR'GYRUM. From λιθος, a stone, and αργυρος, silver. Litharge

Plumbi oxydum semivitreum. Semivitrified protoxyd of lead. When white, it is called litharge of silver, and when red, litharge of gold.

LITHEC'TASY. From λιθος, a stone, and εκτασις, dilatation. An operation for the removal of stone from the bladder, by dilating the neck of the organ, after having made an incision in the perineum and opened the membranous portion of the urethra.

LITH'IA. The oxyd of lithium.

LITHI'ASIS. From λιθος, a stone. The formation of stone. Also, a disease of the eyelids, in which their margins are beset with stone-like concretions.

LITHIC. *Lithicus.* Relating to lithic or uric acid, or to stone.

Lithic Acid. Uric acid.

LITHI'UM. A white metal obtained, by means of galvanism, from lithia.

LITHOL'ABUM. From λιθος, a stone, and λαμβανω, I seize. An instrument for grasping and extracting the stone from the bladder.

LITHOL'OGY. *Lithologia.* From λιθος, a stone, and λογος, a discourse. A treatise on calculus concretions.

LITHONTRIP'TIC. *Lithontripticus;* from λιθος, a stone, and τριβω, to wear away. A remedy supposed to be capable of dissolving urinary calculi.

LITHONTRIP'TOR. An instrument for breaking calculi in the bladder into small pieces so that they may be washed away by the urine. A variety of instruments have been invented for this purpose.

LITHOSPER'MUM. The name of a genus of plants.

Lithospermum Officina'le. Gromwell.

LITHOT'OMIST. One who devotes himself to the operation of lithotomy.

LITHOT'OMY. *Lithotomia;* from λιθος, a stone, and τεμνω, to cut. Cutting into the bladder for the extraction of stone.

LITHOT'RITY. *Lithotritia;* from λιθος, a stone, and τριβω, I break. The operation of breaking or bruising the stone into small pieces so that it may be discharged with the urine.

LITHU'RIA. From λιθος, a stone, and ουρον, urine. Urine containing uric acid and urates.

LITMUS. A blue coloring matter prepared from argol, and used by chemists on *paper* to detect the presence of acids, which turn it red.

LITRA. Λιτρα. A pound.

LITRE. A French measure containing 2.1135 English pints.

LIVER. *Hepar.* The largest gland in the body. It is of a brownish-red color, and situated under the diaphragm, occupying the whole hypochondriac region, and part of the epigastric. It is the organ of the biliary secretion.

Liver, Granulated. A disease of the liver, in which this organ becomes tuberculated, and assumes a rusty yellow color, and on which account it is termed *cirrhosis.* The disease is variously designated by different authors.

Liver, Inflammation of. Hepatitis.

Liver of Sulphur. Potassii sulphuretum.

Liver Spot. Chloasma.

LIVERWORT. Marchantia polymorpha.

Liverwort, American. Hepatica Americana.

Liverwort, Ash-Colored. Lichen caninus.

Liverwort, Ground. Lichen caninus.

Liverwort, Iceland. Cetraria islandica.

Liverwort, Noble. Marchantia polymorpha.

Liverwort Tree. Lichen olivarius.

LIVIDITY. A dark color.

LIVOR. From *liveo,* to be black and blue. Lividity.

LIX. Ashes. Wood ashes.

LIXIV'IAL. *Lixivialis;* from *lix,* wood-ash. Salts obtained by lixivation.

LIXIVIA'TION. *Lixiviatio.* The act of treating ashes with water, for the purpose of dissolving the alkaline salts which they contain.

LIXIV'IUM. Any solution containing soda or potassa in excess. Lye.

LOADSTONE. Magnet.

LOATHING. Disgust.

LOBATE. *Lobatus.* Lobed.

LOBE. Lobus. In *Anatomy*, a round projecting part of an organ.

LOBE'LIA. Lobelia inflata. Also, the name of a genus of plants.

Lobelia Cardina'lis. Cardinal flower. Cardinal plant.

Lobelia Infla'ta. Indian tobacco.

Lobelia Syphilit'ica. Blue cardinal flower.

LOBE'LIACEÆ. The lobelia tribe of dicotyledonous plants.

LOBSTER. Cancer gammarus.

LOB'ULUS. Diminutive of *lobus*, a lobe. A small lobe.

Lobulus Auris. The lobe, or lower part of the ear.

Lobulus Pneumogastricus. A small lobe of the cerebellum.

LOBUS. A lobe.

LOCAL. *Localis.* In *Pathology*, applied to a disease affecting a part, without implicating the whole system.

LOCALES. Plural of *localis.* In Cullen's Nosology, the fourth class, which comprehends morbid affections that are partial.

LOCK, E. Author of a paper on the Structure and Extraction of the Teeth, published in the Dental Register of the West, volume first.

LOCKED JAW. Trismus.

LOCOMO'TION. *Locomotio;* from *locus*, a place, and *movere*, to move. The process by which animals of the higher classes move from place to place.

LOCULAMEN'TUM. In *Botany*, the space between the valves and partitions of a capsule.

LOCUS NIGER. The dark matter in the centre of the peduncles of the brain.

Locus Perforatus. See Pons Tarini.

LOESCHER. Dissertation on the Wisdom Teeth, and their Diseases, by. Willeb, 1728.

LOESELIUS. Dissertation on the Pain of the Teeth, by. Regiom, 1639.

LOGWOOD. Hæmatoxylon campechianum.

LOIMIC. *Loimicus;* from λοιμος, a pestilence. Pertaining to a pestilence.

LOINS. The lumbar region of the back.

LOMEN'TUM. A fruit similar to a legume, excepting that the space between each seed is divided into distinct pieces, giving it the appearance, at maturity, of being composed of many articulations. Also, meal of beans, and the bread made from such meal.

LONGBOTHOM, B. T. B. T. Longbothom, late surgeon dentist of Jamaica, and author of a small work on the teeth, entitled, a Treatise on Dentistry, Explaining the Diseases of the Teeth and Gums, with the most effectual means of Prevention and Remedy; to which is added, Dentition; with rules to be observed during that interesting period. Baltimore, 1802.

LONGANON. The rectum.

LONGEV'ITY. *Longævitas.* The prolongation of life to an advanced age, or to above seventy years. Haller collected examples of more than a thousand over a hundred years. It is said that Thomas Parr reached 152; Henry Jenkins, 169; Peter Torten, 185; John Rovin and wife, 172 and 164.

LONGIS'SIMUS DORSI. A long muscle of the back.

Longissimus Femoris. The saratorius muscle.

Longissimus Manus. Flexor tertii internodii pollicis.

Longissimus Oculi. Obliquus superior oculi.

LONGITU'DINAL. *Longitudinalis.* In *Anatomy*, applied to parts which have such direction.

Longitudinal Sinus. A triangular

canal of the dura mater, proceeding from the crista galli to the tentorium.

LONG-SIGHTEDNESS. See Presbyopia.

LONGUS COLLI. A muscle situated on the anterior of the vertebræ of the neck.

LONICE'RA. The name of a genus of plants.

Lonicera Periclim'enum. The common honey-suckle.

LOOSENESS. Diarrhœa.

LOPEZ. *Radex lopeziana. Radex indica lopeziana.* The root of an unknown tree of India.

LOQUAC'ITY. *Garrulitas;* from *loquor*, I speak. Volubility; sometimes a symptom of disease.

LOTIO. A lotion.

Lotio Acidi Pyroligner. Lotion of pyroligneous acid.

Lotio Aluminis. Alum lotion.

Lotio Ammoniæ Acetatis. Lotion of acetate of ammonia.

Lotio Ammoniæ Hydrochloratis. Lotion of muriate of ammonia.

Lotio Ammoniæ Muriatis Cum Aceto. Lotion of muriate of ammonia and vinegar.

Lotio Ammoniæ Opiata. Lotion of ammonia and opium.

Lotio Boracis. Lotion of borax.

Lotio Calcis Composita. Black wash.

Lotio Flava. Yellow wash.

Lotio Gallæ. Lotion of gall-nuts.

Lotio Hellebori Alba. Lotion of veratrum album.

Lotio Hydrargyri Amygdalina. Amygdaline lotion of corrosive sublimate.

Lotio Hydrargyri Oxymuriatis. Lotion of corrosive sublimate.

Lotio Hydrargyri Oxymuriatis Composita. Compound lotion of corrosive sublimate.

Lotio Nigra. Black wash.

Lotio Opii. Opium lotion.

Lotio Picis. Compound lotion of tar.

Lotio Plumbi Acetatis. Lotion of acetate of lead.

Lotio Potassii Sulphureti. Lotion of sulphuret of potassium.

Lotio Zinci Sulphatis. Lotion of sulphate of zinc.

LO'TION. *Lotio;* from *lavare, lotum*, to wash. A liquid preparation to be applied to the body externally.

LOTI'UM. Urine.

LOUSE. Pediculus.

LOUSI'NESS. Phthiriasis.

LOUSELAND'S DENTIFRICE POWDER. Take red bark, selected and pulverized, ʒ ij; red saunder's wood, made into a powder, ʒ i; volatile oil of cloves, xij drops; oil of bergamot, vii drops. Mix properly for use.

LOVAGE. Ligusticum levisticum.

LOVE-APPLE. Solanum lycopersicum.

LOW SPIRITS. Hypochondriasis.

LOXAR'THROS. From λοξος, oblique, and αρθρον, a joint. Obliquity, or wrong position of parts forming a joint.

LOX'IA. Wry neck.

LOZENGE. See Trochiscus.

LUCID. *Lucidus.* Clear; transparent; shining; bright. In *Medicine*, intervals of reason in mental affections.

LUDOLF, H. Dissertation on the Diseases of the Gums, by. Erfort, 1722.

LUDWIG. On the Cortex Striatus. Leipsic, 1753.—Dissertation on Difficult Dentition, by. Leipsic, 1800.

LUES. From λυω, to dissolve. Pestilence. Also, syphilis.

Lues Gutturis Epidemica. Cynanche maligna.

Lues Indica. The yaws.

Lues Neurodes. A typhus fever.

Lues Venerea. Syphilis.

LUMBA'GO. From *lumbi*, the loins. Rheumatism affecting the muscles about the loins.

LUMBAR. *Lumbalis.* Belonging, or relating, to the loins.

Lumbar Abscess. Psoas abscess.

Lumbar Arteries. Four or five arteries on each side which curve around the lumbar vertebræ beneath the psoas muscle, giving off the spinal, anterior,

posterior, and external muscular branches.

Lumbar Nerves. Five pair of nerves which issue from the vertebral column, by the spinal foramina of the loins.

Lumbar Plexus. A plexus, situated between the transverse processes of the lumbar vertebræ and the quadratus lumborum behind, and the psoas magnus muscle before, and formed by the anterior branches of the first four lumbar nerves.

Lumbar Region. The loins.

LUMBARIS EXTERNUS. The quadratus lumborum muscle.

Lumbaris Internus. The psoas magnus muscle.

LUMBI. The loins; the lumbar region.

LUMBO-SACRAL. Belonging to the lumbar and sacral regions.

LUMBRICA'LIS. From *lumbricus*, the earth-worm. A name given to certain muscles from their resemblance to the earth-worm.

LUMBRICALES MANUS. The small flexor muscles of the fingers.

Lumbricales Pedis. Four muscles of the foot similar to those of the hand.

LUMBRI'CUS. The common earth-worm. Also, the long, round worm found in the intestines of man and other animals.

Lumbricus Terrestris. The earth-worm.

LUMBUS VENERIS. Yarrow.

LUNA. The moon. Also, silver.

Luna Cornea. Chloride of silver.

Luna Fixata. Oxyd of zinc.

LUNAR CAUSTIC. Nitrate of silver.

LUNA'RE OS. One of the bones of the carpus.

LUNARIA REDIVI'VA. Bulbonach.

LU'NATIC. *Lunaticus;* from *luna*, the moon. Moonstruck. Applied to diseases which are supposed to be influenced by the changes of the moon. Generally, however, restricted to mental alienation.

LUNG. *Pulmo.* The right lung is divided into three lobes, and the left into two. The lungs, in man and many other animals, are the organs of respiration.

Lung-Wort. Pulmonaria officinalis.

Lung-Wort Tree. Lichen pulmonarius.

LUPIA. Enycsted tumors, with contents of a pultaceous consistence.

LUPI'NUS ALBUS. The white lupin.

LU'PULIN. Lupuline. The yellow aromatic matter of hops.

LU'PULUS. The hop plant.

LUPUS. A wolf. *Noli me tangere*, a malignant disease of the face, consisting of ragged tubercular excrescences, and spreading ulcerations, particularly about the lips and nose.

Lupus Cancrosus. Cancer.

Lupus Vorax. Herpes exedens.

LURID. *Luridus.* Ghastly. Also, a pale-yellowish purple color.

LUS'CITAS. Distortion of the eye-ball, and inability to move it when the other eye is closed. Also, strabismus.

LUSUS NATURÆ. A freak of nature, a deformed or unnatural production.

LUTE. See Lutum.

LU'TEUS. Yellow.

LUTUM. In *Chemistry*, a composition for covering chemical vessels and for closing their joinings.

LUXA'TION. *Luxatio;* from *luxare*, to put out of place. Displacement of the articular extremity of a bone from its proper place or cavity. Dislocation.

Luxation of Teeth. The displacement of one or more teeth from their sockets. This may be partial or complete; simple or complicated. When partial, the tooth is only slightly raised in its socket, and the connection between the two not entirely destroyed. When complete, the tooth has entirely left the socket. The luxation may be said to be simple, when the alveolus sustains no other injury than that which

is inflicted by the mere evulsion of the organ; and complicated, when the gum is bruised and lacerated, or the alveolus fractured.

The cause of the luxation of a tooth is generally external violence, as that of a blow or a fall, though it sometimes results from careless or awkward attempts at extraction, in not using the precautions necessary in the performance of this operation. See Extraction of Teeth. Partial luxation is sometimes produced from improper methods of procedure in the treatment of irregularity of the teeth, and sometimes by the action of an antagonizing tooth, and occasionally by the filling up of the socket with a deposition of bony matter.

When the luxation is only partial and produced by external violence, as a blow or fall, or by the extraction of an adjoining tooth, the partially displaced organ, should be at once forced back into its socket, and should violent inflammation supervene, two or three leeches should be applied to the gum, and the mouth gargled several times a day with some cooling and astringent lotion. The patient, in the meantime, for three or four days, should be restricted to a light and soft diet.

Although, under certain circumstances, it may be advisable to replace a tooth after it has been forced entirely from the socket, it seldom happens that a sufficiently perfect connection is re-established to prevent a tooth thus replaced from exercising a morbid influence upon the parts which immediately surround it. But when the replacement of a luxated tooth is determined on, it should be done immediately. The coagulated blood, however, should be first removed from the socket, and if the tooth has become cold or there be any dirt adhering to it, it should be washed off in warm water and then immediately replaced, and confined to the adjoining teeth with a ligature of silk. If a union takes place, it is by an effusion of coagulable lymph and the formation of an imperfectly organized membranous investment for the root, an operation of the economy to shield the surrounding living parts from the noxious effects which the root would otherwise exert. But, even in the most favorable cases, teeth thus replaced, are apt to become sensitive to the touch, and occasionally to give rise to more or less tumefaction or turgidity of the surrounding gum. When complicated with fracture of the alveolus, the replacement of a luxated tooth should never be attempted.

Mr. Fox proposed the partial luxation of a tooth for the cure of tooth-ache, thinking, that by the severance of the vascular and nervous cord at the extremity of the root, the pain would cease, but his hopes were not realized, and the efforts of other practitioners have been attended with no better success.

For the treatment of gradual displacement of a tooth by a deposition of bony matter at the bottom of the socket. See article upon that subject.

LYCAN'CHE. Cynanche.

LYCANTHRO'PIA. From λυκος, a wolf, and ανθρωπος, a man. A variety of melancholy, in which the person believes himself changed into a wolf, and imitates the habits of that animal.

LYCOPER'DON. The puff ball. Also, the name of a genus of fungi.

Lycoperdon Tuber. The truffle; a globular, solid fungus, which grows under ground and attains the size of a potato.

LYCOPO'DIUM. The name of a genus of plants.

Lycopodium Clava'tum. The club-moss.

Lycopodium Sela'go. The upright club-moss.

LYCOP'SIS. The name of a genus of plants. Also, the wall bugloss.

LY'COPUS. *Lycopus virginicus.* Bugleweed; water hoarhound.

LYCOREX'IA. Morbid appetite.

LYE. A solution of alkaline salts.

LYG'MUS. Singultus.

LYMPH. *Lympha.* The fluid contained in the lymphatic vessels.

LYMPHADENI'TIS. From *lympha*, lymph, and *adenitis*, inflammation of a gland. Inflammation of a lymphatic gland.

LYMPH GLOBULES. The globules of the lymph.

LYMPHANGIOL'OGY. From *lymphangeon*, a lymphatic, and λογος, a discourse. A treatise on the lymphatics.

LYMPHAT'IC. *Lymphaticus;* from *lympha*, lymph. Of the nature of lymph. Also, a small transparent absorbent vessel that carries lymph.

Lymphatic Gland. A gland into which lymphatics enter, and from which they go out, as the *mesenteric, lumbar,* &c.

Lymphatic Veins. The absorbents.

LYMPHATICS. The lymphatic vessels.

LYMPHIZA'TION. The effusion of coagulable lymph.

LYMPHOCHE'ZIA. From *lympha*, lymph, and χεζω, I go to stool. Serous diarrhœa.

LYMPHO'SIS. The elaboration of lymph.

LYMPHOT'OMY. From *lympha*, lymph, and τεμνω, I cut. The dissection of the lymphatics.

LYPEMA'NIA. Melancholy.

LY'RA. From λυρα, a lyre. *Psalterium. Corpus psalloides.* The transverse lines upon the posterior part of the under surface of the fornix between the diverging corpora fimbriata, are so called, from their fancied resemblance to the strings of a harp.

LYRINGIUM. Button snake-root.

LY'RUS. Arnica montana.

LYSIMA'CHIA. The name of a genus of plants.

Lysimachia Nummula'ria. Moneywort.

Lysimachia Purpurea. Lythrum salicaria.

LYSSA CANINA. Hydrophobia.

LYSSODEC'TUS. From λυσσα, canine madness, and δακνω, I bite. One laboring under hydrophobia.

LYTHRUM. The name of a genus of plants.

Lythrum Salica'ria. Willow herb.

LYTTA VESICATORIA. Cantharis.

Lytta Vitta'ta. Potato fly.

M.

M. In *Medical Prescriptions,* this letter signifies *manipulus,* a handful. Also, *misce,* mix.

MACA'CUS. A genus of Catarrhine monkeys, characterized by having a fifth tubercle or cusp upon their last molar tooth, ischial callosities and cheek pouches.

MACANDOU. A Malacca tree.

MACAPATLI. Sarsaparilla.

MACARO'NI. An alimentary preparation from wheat, containing a large quantity of gluten; also, a sort of paste moulded into a cylindrical form, from the flour of wheat. It is eaten, when boiled, in soup, &c.

MACE. The arillus, or covering which envelops the nutmeg. It has a pleasant aromatic odor, and a warm, moderately pungent taste. It is of an oleaginous nature and yellowish color.

MACERA'TION. *Maceratio;* from *macero*, I soften by water. The infusion, either with or without heat, of a solid substance in a liquid, with a view of extracting its virtues.

MACIES. Atrophy; emaciation.

MACROBIOSIS. Longevity.

MACROBIOT'IC. From μακρος, great, long, and βιος, life. Long-lived.

MACROCEPH'ALUS. From μακρος, great, and κεφαλη, head. Large headed.

MACRO'PIPER. Long pepper.

MACROPNŒ'A. From μακρος, long, and πνεω, I breathe. A long or deep inspiration.

MAC'ULA. A spot. A permanent discoloration of some portion of the skin, as in the case of *nævus, ephelis*, &c.

Macula Germinativa. See Nucleus Germinativus.

Macula Matricis. Nævus maternus.

MACULÆ. The eighth order, in Dr. Willan's arrangement of cutaneous diseases, comprehending *ephelis, nævus, opilus* and *moles*.

MACULATE. *Maculatus*. Spotted.

MADAR. Mudar.

MADAME DE LA VEILLIER'S WATER FOR THE TEETH. ℞.—Cinnamon, ʒ ij; cloves, ʒ vi; recent rinds of lemons, ʒ iss; red roses, dried, ʒ i; scurvy grass, ʒ viij; alcohol, ℔ iij. Pound the cinnamon and cloves, divide the roses and lemon rinds, bruise the scurvy-grass; macerate in the alcohol for twenty-four hours, and distil in a water bath.

MADARO'SIS. From μαδος, bald. Loss of the hair, especially of the eyelashes.

MADDER. Rubia tinctorum.

MADNESS. Insanity.

Madness, Canine. Hydrophobia.

MADOR. Moisture.

MAGGOT PIMPLE. Acne punctata.

MAGISTE'RIUM PLUMBI. Carbonate of lead.

MAG'ISTERY. *Magisterium;* from *magister*, a master. A name applied by the old chemists to a method of preparing any secret medicines, inducing the belief that it was done by a masterly process. The term was also applied to certain precipitates.

MAG'ISTRAL. Medicines prepared extemporaneously.

MAGNES. A magnet.

MAGNE'SIA. From *magnes*, the magnet, because it was supposed to have the power of attracting any principle from the air. The name of one of the alkaline earths, having a metallic basis. *Magnesium*.

Magnesia Calcinata. Calcined magnesia. Protoxyd of magnesium.

Magnesia, Henry's. A preparation of calcined magnesia.

Magnesia Usta. Magnesia calcinata.

Magnesia Vitriolata. Sulphate of magnesia.

Magnesia Water. Fluid magnesia.

MAGNESIÆ CARBONAS. *Magnesiæ subcarbonas. Magnesia alba.* Carbonate of magnesia.

Magnesiæ Sulphas. *Sulphas magnesiæ purificata. Magnesia vitriolata. Sal catharticus amarus. Sal catharticum amarum.* Sulphate of magnesia. Epsom salt.

MAGNE'SIUM. The metal which constitutes the base of magnesia.

Magnesium, Oxyd of. Magnesia.

Magnesium, Chloride of. Magnesii chloridum.

MAGNET. Μαγνης, from *magnesia*, in Asia Minor, whence it was obtained. The loadstone; an amorphous, oxydulated ore of iron, having the property of attracting iron, and some of its ores, and of pointing by one of its extremities to the north pole.

MAGNET'IC. *Magneticus*. Belonging, or relating, to the magnet.

Magnetic Fluid. The imponderable fluid to which the magnet owes its virtues.

MAG'NETISM. That department of science which investigates the properties of the magnet.

Magnetism, Animal. *Mesmerism*. The pretended science which claims, that by means of an *electro-nervous* influence, one person can be made to control all the actions and sensations of another. It is hardly necessary to say, that no evidence of the existence of such a fluid exists.

MAGNO'LIA. The name of a genus of flowering trees.

Magnolia Acumina'ta. This species of magnolia grows to the height of seventy or eighty feet. It is called the cucumber tree, from the resemblance of its fruit to the garden cucumber.

Magnolia Glauca. A shrub which sometimes grows to the height of forty feet. Its flowers are large, of a cream color, and gratefully odorous.

Magnolia Grandiflora. The big laurel magnolia, which, in the southern states, rivals, in magnitude, the largest forest trees.

MAGNUM DEI BONUM. Cinchona.

Magnum Os. The third bone of the lower row of the carpus, counting from the thumb.

MAHOGANY TREE. Swietenia mahagoni.

MAHON. Author of a curious and interesting work on the Teeth, entitled, the Observing Dentist, &c. Paris, year VI. This work contains much valuable information on the semiology of the teeth, with some interesting observations on the diseases of the maxillary sinus.

MAIDENHAIR. Adiantum.

Maidenhair, Black. Leek fern.

Maidenhair, Golden. Polytrichum.

MAIZE. Indian corn. Zea mays.

MAJANTHEMUM. The may lily.

MAJORANA. Sweet marjoram.

MAL. A disease.

Mal de la Rosa. An endemic disease of the Asturias; a variety of pellagra.

Mal de Dent. Odontalgia.

Mal de San Laza'ro. A severe leprosy.

Mal de Siam. Yellow fever.

Mal del Sole. Pellagra.

Mal des Ardens. A name given to a species of pestilential erysipelas, that prevailed in France in the twelfth century.

Mal Rouge de Cayenne. Cayenne leprosy.

MA'LA. The cheek.

MALABA'THRUM. The leaves of a tree of India, supposed to be the laurus cassia.

MALA'CIA. From μαλαχος, soft, effeminacy. Longing for some particular aliment, with disgust for common articles of diet, as is the case with persons affected with chronic gastritis, and in chlorotic and pregnant females.

MALACO'SIS. From μαλαχος, soft. Softening of a tissue or organ, as in the case of *mollities ossium*, *mollities cerebri*, &c.

MALACOS'TEON. From μαλαχος, soft, and οστεον, a bone. Softening of bones.

MALAC'TICA. Emollients.

MALADY. Disease.

MALAG'MA. From μαλασσω, to soften. An emollient application.

MALAR. *Malaris*; from *mala*, the cheek. Belonging, or pertaining, to the cheek.

MALAM'BO BARK. Matias bark.

MALA'RIA. Miasm.

MALA'RIOUS. Resulting from, or connected with, malaria.

MALE. The masculine sex of animals. Also, the axilla.

Male Fern. Aspidium filix mas.

Male Speedwell. Veronica officinalis.

MALFORMA'TION. *Malformatio*. Wrong formation, or structure of a part, or organ. A deviation from natural development or structure.

MALIC ACID. *Acidum malicum*. The acid of apples, pears, &c.

MALIG'NANT. *Malignus*. Applied to diseases of an aggravated or dangerous character, as pestilential fevers; cancers, &c.

MALING'ERER. One who feigns disease.

MALIS. *Maliasmus*. A cutaneous affection, produced by parasitical insects.

Malis Acari. Tick bites.

Malis Filariæ. The Guinea-worm disease.

Malis Pediculi. Lousiness.

MALLAN, JOHN. Practical Ob-

servations on the Physiology and Diseases of the Teeth, by. London, 1835.

MALLEABIL'ITY. *Maleabilitas;* from *malleus*, a hammer. Susceptible of extension under the blows of a hammer, a property possessed by several of the metals, and gold, in a higher degree than any of the others.

MALLEI ANTERIOR. The laxator tympani muscle of the ear.

Mallei Internus. The tensor tympani muscle.

MALLE'OLAR. *Malleolaris.* Pertaining to the ankles.

Malleolar Arteries. Two arteries of the ankle derived from the anterior tibial.

MALLE'OLUS. The two projections formed by the tibia and fibula at the ankle, the internal, is called the *malleolus internus*, and the external, *malleolus externus.*

MAL'LEUS. A hammer. The outermost of the four bones of the ear is so named from its shape.

MALLOW, MARSH. Althæa officinalis.

Mallow, Vervain. Malva alcea.

MALPIGHI, ACINI OF. A number of small dark spots, scattered through the plexus formed by the blood vessels and uriniferous tubes in the kidney.

MALPIG'HIA GLA'BRA. The Barbadoes cherry.

MALT. Barley, or other grain, made to germinate, by steeping it in water, and afterwards drying in a kiln, for the purpose of forming beer.

MALTHA. From μαλαττω, I soften. Mineral pitch.

MA'LUM. A disease. Also, an apple.

Malum Canum. *Malum cotoneum.* The quince.

Malum Citreum. The citron.

Malum Insanum. The mad-apple plant, or egg-fruit.

Malum Medicum. The lemon.

Malum Mortuum. A cutaneous affection in which the affected parts appear to be struck with death.

Malum Pilare. Trichosis.

MALUS. *Pirus malus.* The apple.

Malus Indica. *Bilimbi biting-bing*, of Bontius. A tree of the East Indies.

MAL'VA. The name of a genus of plants.

Malva Verbenaca. The vervain mallow.

Malva Sylvestris. The common mallow.

MALVAVISCUS. Althæa officinalis.

MAMA-PIAN. The master yaw of frambœsia.

MAMIL'LA. The breast of man. Also, the nipple.

MAMMA. The glandular organ peculiar to mammiferous animals, imperfectly developed in the male, and destined in the female, for the secretion of milk.

MAMMA'LIA. From *mamma*, the breast. A class of animals, comprising all those which suckle their young.

MAMMARY. *Mammarius;* from *mamma*, the breast. Relating to the breast.

Mammary Abscess. Abscess of the breast.

Mammary Arteries. They are three in number, one *internal*, and two *external.* The internal is a branch of the subclavian, and gives off the *mediastinal*, *thymal*, and *pericardal* arteries. The external are given off by the axillary artery.

Mammary Gland. The organ which secretes the milk.

Mammary Sarcoma. A tumor of the texture and color of the mammary gland, occurring in various parts of the body.

Mammary Veins. These veins follow the course of the mammary arteries.

MAMMIF'ERA. Mammalia.

MAMMIL'LA. The nipple.

MAM'MILLARY. *Mammillaris.*—Pertaining to the nipple or breast.

Mammillary Eminences. *Corpora albicantia.* Two white bodies, of the

size of a pea, behind the tuber cinereum, and between the crura cerebri.

MAM'MILLATED. *Mammiform.* Mastoid; resembling a nipple.

MANDI'BULA. From *mando*, to chew. A jaw. In *Zoology*, the lower jaw of mammals, both jaws of birds, and in insects, the upper or anterior pair of jaws.

MANDRA'GORA. The mandrake.

MANDRAKE. Atropa mandragora.

MANDUCA'TION. *Manducatio.* Mastication.

MAN'GANESE. A greyish-white, hard, brittle metal, of a granular texture.

MANGANESE, BLACK OXYD OF.—*Manganese, oxyd of. Manganese, binoxyd of. Manganese, peroxyd of.* This oxyd is much used in the manufacture of porcelain teeth, for coloring the enamel. It is never, however, used by itself for this purpose, but in combination with some other oxyds.

MANGANESE, SU'LPHATE OF. A very soluble, rose colored salt.

MANGIF'ERA IN'DICA. The mango tree of Asia.

MANGO TREE. Mangifera indica.

MA'NIA. From μαινομαι, I rage. Raving madness.

MANIA A POTU. Delirium tremens.

MAN'IAC. One affected with mania.

MANIOC. Jatropha manihot.

MANIPULA'TION. From *manus*, a hand. The art of using or handling instruments. In *Chemistry*, the preparation of substances for experiment, and in *Pharmacy*, the preparation of medicines.

MANIPULA'TOR. One who manipulates.

MANIP'ULUS. A handful.

MANNA. A saccharine matter, which exudes from many plants, especially, the *fraxinus ornus*, and is used as a laxative.

MANNA BRIGANTIACA. Manna of the larch.

MANNA CALABRINA. Calabrian manna.

MANNA CANULATA. Flaky manna.

MANNA METALLORUM. Calomel.

MANU'BRIUM MANUS. The radius.

MANULU'VIUM. A hand bath.

MANUS. The hand.

MAPLE SUGAR. Sugar made from the juice of the *acer saccharinum.*

MARAN'TA. The name of a genus of plants.

MARANTA ARUNDINACEA. Arrow-root.

MARANTA GALAN'GA. *Galanga minor.* The smaller galangal.

MARAS'MUS. From μαραινω, to grow lean. Atrophy. Emaciation.

MARATH'RUM. Sweet fennel.

MARATHRUM SYLVESTRE. Hog's fennel.

MARCASI'TA. Marcasite. Pyrites.

MARCASITA ALBA. Bismuth.

MARCASITA PLUMBEA. Antimony.

MARCET'S BLOW-PIPE. A spirit-lamp fed by a jet of oxygen.

MARCHAN'TIA. The name of a genus of plants.

MARCHANTIA POLYMOR'PHA. Liverwort.

MAR'COR. Emaciation. Atrophy.

MARCO'RES. The name of an order in the class *cachexiæ*, of Dr. Cullen, embracing such diseases as are characterized by general emaciation.

MARE'S-TAIL. Hippuris vulgaris.

MARGARI'TA. Pearl. Also, a tumor of the eye resembling pearl.

MARGINATE. Bordered.

MARIGOLD. Calendula officinalis.

MARIGOLD FIG. Mesembryanthemum crystallinum.

MARIGOLD, MARSH. Galtha palustris.

MARINE ACID. Acidum muriaticum.

MARINE SALT. Sodæ murias.

MARJORAM. Sweet marjoram.

MAR'MALADE. A confection of

quinces, or other fruit, and sugar, reduced to a pultaceous consistence.

MARMA'RYGA. From μαρμαιρω, to shine. Flashings, or coruscations before the eye.

MARMONT, J. L. Odontotechny, or the Art of the Dentist; a Didactic and Descriptive poem, in four cantos, by. Dedicated to the ladies, Paris, 1825.

MARMON. Marble.

MARROW. The fatty substance contained in the medullary cavities in the long cylindrical bones.

Marrow, Spinal. The medulla spinalis.

MARRU'BIUM. The name of a genus of plants.

Marrubium Alyssum. Galen's madwort.

Marrubium Aquaticum. Water hoarhound.

Marrubium Vulgare. *Marrubium. Marrubium album.* Common hoarhound.

MARS. Iron.

Mars Solubilis. Ferrum tartarizatum.

MARSH. A tract of low land covered with water. The emanations from marshes are a fruitful source of disease.

Marsh-Mallow. Althæa officinalis.

Marsh Tea. Ledum palustre.

MARSU'PIAL *Marsupialis;* from *marsupium*, a purse. The obturator internus muscle. Also, the abdominal pouch of the opossum, kangaroo, &c., into which their young are received and nourished for some time after they are born.

MARSUPIAL'IA. Animals which have the marsupial pouch.

MARTEL, N. M. On Odontalgia, and Affections which simulate it, by. Paris, 1807.

MARTIAL. *Martialis;* from *mars*, iron. Chalybeate.

Martial Æthiops. Protoxyd of iron.

Martial Salts. Salts of iron.

MARTIN. Author of a Dissertation on the Teeth, published, Paris, 1679.

MARTIS LIMATURA. Iron filings.

MAS'CHALE. The axilla.

MASSA. From μασσω, I mix. A mass. Generally applied to the compound from which pills are to be formed.

MASSE'SIS. Mastication.

MASSE'TER. From μασσαομαι, I chew. A muscle of the lower jaw, situated at the side and back part of the face, in front of the meatus externus. It arises by two portions, the one, anterior and tendinous from the superior maxilla where it joins the malar bone, the other, from the inferior edge of the malar bone and the zygomatic arch as far back as the glenoid cavity, and is inserted, tendinous and fleshy, into the external side of the ramus of the jaw, and its angles, as far up as the coronoid process. The use of this muscle, when both portions act together, is to close the jaws; if the inferior acts alone, the jaw is brought forward; if the posterior, it is drawn backward.

MASSETER'IC. Relating, or belonging, to the masseter muscle.

MASTIC. The tree which affords the mastich.

MASTICA'TION. *Masticatio,* from *mastico,* I chew. The act of chewing food, or the process by which it is comminuted, and mixed with saliva, preparatory to being introduced into the stomach. The organs of mastication are the superior and inferior maxillary, and the palate bones; the teeth, and the temporal, masseter, and the external and internal pterygoid muscles. To these, might also be added the lips, the various movements of which depend upon the single and combined action of their muscles which extend over the greater portion of the face.

The upper jaw being rendered immovable by its connection with the bones of the head, is aptly compared by Richerand, to an anvil, on which the lower jaw, in the act of mastication, "strikes as a movable hammer," but the motions of the latter, and the pressure which it exerts, in these efforts,

upon the former, would have the effect, continues this learned physiologist, to displace the different bones of the face, were they merely placed in juxta-position, or only held together by sutures, if not so supported as "to transmit to the skull the double effort which presses on it from below upwards, and pushes out laterally." Hence we find the fabric of the face supported in an upward direction, by the ascending apophyses of the superior maxilla, the orbitar processes of the malar and the vertical processes of the palate bones; and laterally, by the zygomatic processes of the temporal, which articulates with the malar bones.

Two distinct actions are concerned in mastication. The first consists in separating a portion of food by means of the incisores, and the second, its manducation by the molares. The lower jaw being depressed, the food is placed between the lower and upper incisores, when by the action of the elevator muscles; their edges are brought together; the condyles and interarticular cartilages retaining the position on the articular eminences which they were made to assume in the first movement of the jaw, the grinding surfaces of the molares do not meet. But as soon as the incisores come together, the lower jaw is drawn slightly backwards by the contraction of the temporal and masseter muscles. By this movement the lower incisores pass backwards and slightly upwards, separating the food by an action which has been compared to the cutting of a pair of shears. The lower jaw is now depressed sufficiently to admit the separated portion of food between the superior and inferior molares, which is conveyed there, by the action of the tongue, lips and cheeks. It is then successively elevated and depressed, while, at the same time, a degree of lateral motion is given to it by the alternate action of the external and internal pterygoid muscles. By this complicated movement of elevation and partial rotation, the process of mastication is effected.

The amount of lateral and rotary motion, however, is greatly influenced by the relationship which the teeth sustain to each other when the mouth is closed. It is much greater when the incisores of the upper jaw strike plumb upon the lower, than when the former shuts over the latter. The process of mastication, however, is very much aided by the adaptation of the tubercles of the molares of one jaw, to the depressions of those of the other, into which they constantly glide as the teeth come together.

The food, during the process of mastication, is penetrated by the saliva, which facilitates the reduction of it into a pultaceous mass. Reduced to this state, it is ready for deglutition.

Mastication is justly regarded as the first step in the process of digestion, and viewed in this light, it assumes an importance in the functions of the animal economy which would not otherwise attach to it. Upon the complete disintegration of alimentary substances, healthy digestion greatly depends, and it is, doubtless, in a great degree, owing to the imperfect manner in which it is effected, that many of the numerous cases of dyspepsia, which are continually occurring, are measurably attributable.

MAS'TICATORY. The instruments and process of mastication. Also, a substance intended to be chewed for the purpose of exciting salivary secretion.

MASTICH. A concrete resinous exudation from the *pistacia lentiscus*.

Mastich-Herb. Thymus mastichina.

Mastich Tree. Pistacia lentiscus.

MASTI'TIS. From μαστος, the breast, and *itis*, signifying inflammation. Inflammation of the breast.

MASTIX. Mastich.

MASTODYN'IA. From μαστος, the breast, and οδυνη, pain. Pain in the

breast, generally of a neuralgic character.

Mastodynia Apostemato'sa. Inflammation and abscess of the breast.

MASTOID. *Mastoideus;* from μαστος, a breast, and ειδος, resemblance. Nipple-shaped. Also, processes of bone shaped like a nipple, and the sterno-cleido mastoideus muscle.

Mastoid Foramen. A hole by the side of the mastoid process.

Mastoid Process. A large, round protuberance at the inferior and posterior part of the temporal bone.

MASTOIDEUS. The sterno-cleido-mastoideus muscle.

Mastoideus Lateralis. The complexus minor.

MASTON'CUS. A tumor of the breast.

MASTURBA'TION. Excitation of the genital organs with the hand.

MAT. Dull. In *Pathology*, applied to the chest, when, on percussion, it emits a dull, obscure sound.

MATERIA. Matter.

Materia Medica. That branch of medical science which embraces the knowledge of medicines, their action on the animal economy, and mode of administration.

MATI'CO. Piper angustifolium.

MATO'NIA CARDAMOMUM.—Amomum cardamomum.

MATRASS. *Matracium.* A retort; a glass vessel with a long neck, used in chemistry and pharmacy.

MATRES CEREBRI. The meninges of the brain.

MATRICA'RIA. The name of a genus of plants.

Matricaria Chamomil'la. Wild corn. Dog's chamomile.

Matricaria Parthenium. Feverfew. Mother's-wort.

MATRIX. The uterus. The epithet is also applied by French writers to the sac of a tooth. In *Mineralogy*, the earthy matter which accompanies ore.

MATTER. Every substance which enters into the composition of a body, or which has sensible properties. In *Pathology*, pus, and other morbid evacuations.

MATURATIVE. *Maturans.* Remedies which promote the suppuration of an inflammatory tumor.

MATURA'TION. *Maturatio.* Progress to maturity of an abscess.

MATU'RITY. Perfect development. Ripeness.

MAURY, J. G. F. Observations on Porcelain Teeth, by. Paris, 1816.—Manual of the Dentist, for the application of Incorruptible Artificial Teeth, &c. by. Paris, 1820 and 1822.

MAURY, F. Complete Treatise on the Dental Art, founded on actual experience, by. New edition, Paris, 1833. This very excellent treatise has been translated into English, by Dr. J. B. Savier, published, Philadelphia, 1843.

Maury's Dentifrice Powder. ℞.—Charcoal of white wood, 256 grammes; Peruv. bark, 128 grammes; white sugar, 236; oil of mint, 16; essence of cinnamon, 8, and muscated spirit of amber, 2 grammes.

Maury's Detersive Powder for the Teeth. ℞.—Red bark, ʒ ij; English magnesia, ʒ viij; cochineal, ʒ iss; calcined alum, ʒ i; cream of tartar, ℔ss; essential oil of English mint, ʒ v; essential oil of cinnamon, ʒ iij; spirit of amber, musk rose, ʒ i. Reduce the first five ingredients separately to an impalpable powder; then porphyrize the alum with the cochineal, put in the cream of tartar and bark, place the essence in another vessel with the magnesia, and when they have been absorbed, mix with the first powder and pass through a fine sieve.

Maury's Philodontic and Antispasmodic Liquor. ℞.—Alcohol of 38 degrees, ℔ij; essential oil of English mint, ʒ i; neroli, ʒ iij; essence of cinnamon, ʒ ij; spirit of amber, musk rose, ʒ ij; sul. ether, ʒ ss. Put eight or ten drops in a glass one-third full of water, dip a brush in and rub the teeth and gums with it.

MAW-WORM. Ascaris vermicularis.

MAXIL'LA. From μασσαω, I chew. The jaw, both upper and lower.

Maxilla, Inferior. The lower jaw.

Maxilla, Superior. The upper jaw.

MAXILLARE INFERIUS OS.—*Maxilla, inferior. Mandibula.* The lower jaw is the largest bone of the face, and though but one bone in the adult, consists of two symmetrical pieces in the fetus.

It occupies the lower part of the face, has a semicircular form, and extends back to the base of the skull.

It is divided into the body and extremities.

The body is the middle and horizontal portion—this is divided along its centre by a ridge called the *symphysis*—which is the place of separation in the infant state—the middle portion projects at its inferior part into an eminence called the *mental process* or chin—on each side of which is a depression for the muscles of the lower lip, and externally to these depressions, are two foramina, called *anterior mental,* for transmitting an artery and nerve of the same name.

The horizontal portion or sides extend backwards and outwards—and on the outer surface have an oblique line for the attachment of muscles.

On the inner surface of the middle part behind the chin, along the line of the symphysis, there is a chain of eminences called *genial processes*—to the superior of which the frenum linguæ is attached, to the middle, the genio-hyoglossi, and to the inferior the genio-hyoid muscles—on each side of these eminences are depressions for the sublingual glands—and on each side of these depressions there runs an oblique ridge upwards and outwards, to the anterior part of which is attached the mylo-hyoid muscle, and to the posterior part, the superior constrictor of the pharynx—this latter muscle is consequently involved more or less in the extraction of the last molar teeth. Below this line there is a groove for the mylo-hyoid nerve.

The upper edge of the body is surmounted by the *alveolar processes,* and cavities—corresponding in number and size to the roots of the teeth.

The lower edge called the base is rounded, obtuse, and receives the superficial facia and platysma muscle.

The extremities of the body have two large processes rising up at an obtuse angle named the *ramui* of the lower jaw. These processes are flat and broad on their surfaces, the outer is covered by the masseter muscle—the inner has a deep groove which leads to a large hole, the *posterior dental* or maxillary foramen, for transmitting the inferior dental nerves and vessels to the dental canal running along the roots of the teeth. This foramen is protected by a spine, to which the internal lateral ligament is attached.

The ramus has a projection at its lower part, which is the angle of the lower jaw—its upper ridge is curved, having a process at each end—the anterior one is the *coronoid process;* this is triangular, and has the temporal muscle inserted into it—the posterior is the condyloid, and articulates with the temporal bone. This process has a neck for the insertion of the external pterygoid muscle.

The structure of the lower jaw is compact externally, cellular within, and traversed in the greater part of its extent by the inferior dental canal.

The lower jaw is developed from two centres of ossification, which meet at the symphysis. It is articulated to the temporal bones by the condyles, and several ligaments, to wit: external and internal lateral, the capsular, inter-maxillary, stylo-maxillary, and two synovial membranes. It is also articulated with the teeth.

Maxillare Superius os. *Maxilla, superior.* The upper jaw is composed of two bones, which are united on the

median line of the face. They occupy the anterior upper part of the face, are of very irregular *form*, and each consist of a body, processes and foramina.

The body is the central part of the bone and has four surfaces, namely, the anterior or facial surface, the posterior or pterygoid, the superior or orbital, and the inferior or palatine surface.

The anterior surface is irregularly convex, and has a depression about its centre just above the canine and first bicuspid teeth, called the canine fossa—immediately above which is the infra-orbitar foramen for transmitting an artery and nerve of same name—its upper and inner edge forms part of the lower margin of the orbit—from the inner extremity of which proceeds upwards towards the nasal and frontal bones, a long and rather flat process, the nasal process of the superior maxilla—it is of a pyramidal form; its posterior edge forming the internal margin of the orbit and helping to make the lachrymal groove,—its anterior edge receives the cartilages of the nose—its upper corresponds to the nasal bones, and its summit to the frontal, while its outer surface gives attachment to muscles, and its inner enters into the formation of the nose.

From the lower edge of its *anterior surface*, the alveolar processes and cavities are formed—these consist in depressions of a more or less conical form and correspond to the number of teeth, or roots of teeth, they are intended to receive.

The *posterior surface* has a bulging, called tuberosity, which is connected to the palate bones, and bounds behind the antrum—is perforated by three or four small holes—the posterior dental canals which go to the alveoli of the molar teeth.

The *lower surface* extends from the alveolar processes in front to the horizontal plate of the palate bones behind, called the palatine processes, which are rough below, forming the roof of the mouth, and smooth above, making the floor of the nostrils. They are united along the median line, at the anterior part of which is the foramen incisivum, having two openings in the nares above, while there is but one in the mouth below.

The *upper* or *orbital surface* is triangular in shape, with its base in front forming the anterior, lower and internal edge of the orbit—while its apex extends back to the bottom, it forms the floor of the orbit and roof of the antrum—its internal edge is united to the lachrymal, ethmoid, and palate bones—its external edge assists in forming the spheno-maxillary fissure, and along its central surface is seen a canal running from behind, forwards and inwards, the infra-orbitar canal. This canal divides into two, the smaller is the *anterior dental*, which descends to the anterior alveoli along the front wall of the antrum—the other is the proper continuation of the canal and ends at the infra-orbitar hole—along the upper part of the line uniting the palatine processes there is a ridge, the *nasal crest*, for receiving the vomer, and at the anterior part of this crest there is a projection forwards, the *nasal spine*—at the external and upper part of the body is a *malar process*.

The body of the superior maxilla is occupied by a large and very important cavity called the *antrum highmorianum* or maxillary sinus. This cavity is somewhat triangular in shape, with its base looking to the nose, and its apex to the malar process. Its upper wall is formed by the floor of the orbit, its lower by the alveoli of the molar teeth, which sometimes perforate this cavity. The canine fossa bounds it in front, while the tuberosity closes it behind.

The opening of this cavity is on its nasal portion or base into the middle meatus of the nose, and in the skeleton is large, while in the natural state it is much contracted by the ethmoid bone above, the inferior spongy bone below, the palate bone behind, the lachrymal bone in front, and by the mucous mem-

brane which passes through this opening and lines the antrum.

This cavity communicates with the anterior ethmoidal cells and frontal sinus.

The structure of the upper jaw is thick and cellular in its alveolar and other processes.

It is articulated with two bones of the cranium, the frontal and ethmoid, and seven of the face, namely, the nasal, malar, lachrymal, palate, inferior spongy, vomer, to its fellow, and also to the teeth.

Its development is very complicated, and is stated to be by as many osseous points as that of the body and its various processes.

MAXILLARY. *Maxillaris;* from *maxilla*, the jaw. Pertaining to the jaws.

Maxillary Artery, External.—See Facial Artery.

Maxillary Artery, Internal. One of the terminal branches of the external carotid. It commences in the substance of the parotid gland, opposite the meatus auditorius externus, then goes horizontally behind the neck of the condyle of the lower jaw to the pterygoidei muscles, between which it passes, and then proceeds forwards to the tuberosity of the superior maxillary bone—from thence it takes a vertical direction upwards between the temporal and external pterygoid muscles to the zygomatic fossa, where it again becomes horizontal, and, finally, ends in the spheno-maxillary fossa, by dividing into several branches.

Those branches of the internal maxillary supplying the passive organs of mastication, or the superior and inferior maxillary bones, with the teeth, are the inferior maxillary or dental artery, the alveolar or superior dental, the infra-orbital, the superior palatine, and the spheno-palatine.

Maxillary Bone, Inferior. Maxillare inferius os.

Maxillary Bone, Superior. Maxillare superius os.

Maxillary Gland. *Glandula maxillaris.* One of the three salivary glands, situated under the base of the lower jaw, resting upon the hyo-glossus and mylo-hyoideus muscles, and separated from the parotid gland by a process of facia, and from the sublingual by the mylo-hyoideus muscle.

It is of an oval form, pale color, and like the parotid, consists in its structure of small granulations, held together by cellular tissue, and each having a small excretory duct, which, successively, uniting with one another, finally forms one common duct, to wit: the duct of Wharton, which passes above the mylo-hyoid muscle, and running forwards and inwards, enters the mouth below the tip of the tongue at a papilla seen on either side of the frænum linguæ.

The use of this gland is the same as the parotid, to secrete the saliva, and its duct is the route by which it is conducted into the mouth.

Maxillary Nerve, Inferior. This nerve forms the third great division of the fifth pair. It is the largest branch, and passes from the ganglion of Casser through the foramen ovale of the sphenoid bone to the zygomatic fossa.

This nerve, as stated, is united to the anterior or motor root, which come together on the outside of the foramen ovale, then in the zygomatic fossa, the inferior maxillary nerve divides into two branches: 1. An *external*, or *superior*. 2. An *internal*, or *inferior*. The *external* is the motor branch, and gives off the *masseteric*, the *temporal*, *buccal*, and *pterygoid* branches.

The *internal* division of this nerve consists of three branches, all of which give sensation, and are, the *anterior auricular*, the *gustatory*, and the *inferior dental*.

Maxillary Nerve, Superior. This nerve proceeds from the middle of the Casserian ganglion, passes through the foramen rotundum of the sphenoid bone, into the pterygo-maxillary fossa—here it enters the canal of the floor of the or-

bit, the infra-orbitar canal, traverses its whole extent, and emerges on the face at the infra-orbitar foramen, where it terminates in numerous filaments in the muscles and integuments of the upper lip and cheek.

The superior maxillary nerve supplies the upper jaw, and gives off many important branches, which are as follows:

In the pterygo-maxillary fossa two branches descend to a small reddish body called the ganglion of Meckel, or the spheno-palatine ganglion, which is situated on the outer side of the nasal or vertical plate of the palate bone.

From this ganglion proceed three branches: 1. An *inferior descending*, or *palatine*, nerve. 2. An *internal, lateral nasal*, or *spheno-palatine*. 3. A *posterior, pterygoid*, or *vidian*. The superior maxillary nerve also gives off, the *orbital*, and the *posterior dental* nerves.

Maxillary Sinus. *Antrum Highmorianun. Antrum maxillæ superioris.* See Maxillare Superius Os.

Maxillary Sinus, Diseases of.—The diseases of this cavity, though often of a dangerous and formidable nature, have received less attention from the surgical and medical practitioner than almost any to which the body is liable. Among the different forms of morbid action set up in the maxillary sinus, are, 1. *Inflammation of the lining membrane.* 2. *A purulent condition of its secretions.* 3. *Abscess.* 4. *Ulceration of the lining membrane.* 5. *Caries, necrosis and softening of its osseous parietes.* 6. *Tumors of the lining membrane and periosteum;* and, 7. *Exostosis of its osseous parietes.* Besides the above, it sometimes becomes the seat of injuries produced by mechanical violence.

The form which the disease puts on, is determined by the state of the constitutional health or some specific tendency of the general system, and we can therefore readily imagine, that a cause which in one person, would give rise only to simple inflammation of the lining membrane, or mucous engorgement, might, in another, produce an ill-conditioned ulcer, fungus hæmatodes or osteo-sarcoma. Simple inflammation and mucous engorgement not unfrequently cause caries and exfoliation of the surrounding osseous tissues, and, as a consequence, in some instances, even the destruction of the life of the patient.

The importance of early attention to these diseases is very apparent, and this is the more necessary as it is often difficult, and sometimes even impossible to determine the character of the disease, until it has progressed so far as to have involved, to a greater or less extent, the neighboring parts; when, if it has not become incurable, its removal is, at least, rendered less easy of accomplishment. It may, therefore, be safely assumed, that in a very large majority of the cases, the danger to be apprehended results more from neglect, than any necessarily fatal character of the affection, so that in forming a prognosis, the circumstances to be considered, are the state of the constitutional health, the progress made by the disease, and the nature of the injury inflicted by it upon the surrounding tissues. If the general health is not so much impaired, as to prevent its restoration by the employment of proper remedies, and the disease has not invaded the neighboring structures, the prognosis will be favorable: but if the functional operations of the body have become much deranged and the bones of the face and nose seriously implicated, the combined resources both of medicine and surgery will prove unavailing.

The occurrence of disease in this cavity is often very insidious. It frequently exists for weeks, and even months, before its presence is suspected. For the most part the diseases of this cavity are similar to those of the nasal fossæ. There is, however, a form of disease which seems to be peculiar to it, viz. mucous engorgement. Deschamps men-

tions two, dropsy and purulent accumulations; the first of these, properly speaking, is never met with, and authors who have enumerated it among its diseases have evidently mistaken mucous engorgement for it. The fluids that accumulate are of a mucous or muco-purulent character, except when they are the result of the disorganization of some of the surrounding parts; then they are sanious.

The most simple form of disease that occurs, is inflammation of its lining membrane, and this, in most instances, may be said to precede all others, and when unattended by any other morbid affection, either local or constitutional, is easily subdued.

A purulent condition of the fluids of the antrum is a very common affection, and seems to be dependent upon a bad habit of body and inflammation of the lining membrane, arising more frequently from dental irritation than any other cause. This condition of the secretions, sometimes gives rise to caries and exfoliation of portions of the surrounding bone, and to fistulous ulcers; but when dependent upon no other local cause than simple inflammation of the lining membrane, such effects seldom result. When complicated with other morbid conditions, they are not unfrequent.

Ulceration of the lining membrane is an affection less frequently met with. It is rarely, if ever, idiopathic, but seems rather to be dependent upon some other local affection, or some specific constitutional vice, as a scorbutic, scrofulous, or venereal taint. Consequently, local remedies are seldom adequate to its cure. It is almost always complicated with fungi of the lining membrane and caries of the walls of the sinus, and when neglected, it sometimes takes on a cancerous form, and becomes incurable.

Next in the order of arrangement which the author proposes to adopt, is caries of its walls. This, though always complicated with one or more other forms of diseased action, seems, nevertheless, to be worthy of separate consideration. Like ulceration of the lining membrane, it is an effect of some one or more other affections. It may result from accumulation of the secretions of the sinus, ulceration, or from tumors.

The occurrence of fungi, and other morbid growths, is less frequent than any of the preceding affections; yet this cavity is not exempt from them, and they constitute the most dangerous description of diseases to which the superior maxilla is subject. Although it is probable, in their incipient stage, they might in nearly every instance be radically removed, it is seldom they are cured after they have attained a very large size, and implicated in their morbid action the circumjacent tissues.

Inflammation of the Lining Membrane.

Inflammation of the lining membrane of the maxillary sinus, when not complicated with any general morbid tendency, or constitutional predisposition, seldom gives rise to any other form of diseased action; and it usually subsides spontaneously on the removal of the cause that induced it. This membrane, in good constitutions, is less subject to inflammation, and, consequently, to any other description of morbid action, than those in whom there exists some vice of body, or unhealthy predisposition. Febrile and gastric affections, eruptive diseases, such as measles, small-pox, &c., &c.; syphilis, an excessive and protracted use of mercurial medicines, a scorbutic or scrofulous diathesis of the general system, and, in short, every thing that has a tendency to enervate the vital powers of the body, increases its irritability.

When in a healthy condition, it secretes a slightly glutinous, transparent and inodorous fluid, by which it is constantly lubricated, but inflammation causes these secretions to become vitiated; at first, to be less abundant, afterwards to be secreted in larger quanti-

ties than usual, to be more serous, and so acrid as sometimes to irritate the membrane of the nose over which they pass, after having escaped from the antrum. It also causes them to exhale an odor more or less offensive, according as the inflammation is severe or mild. It moreover gives rise to a thickening of the membrane, and, sometimes to an obliteration of the nasal opening. This last, rarely occurs, but when it does, an accumulation of the secretions and other morbid phenomena, of which we shall hereafter treat, result from it, as a necessary consequence.

If, at any time during the continuance of the inflammation, the patient is attacked with severe constitutional disease, the local affection will be aggravated, and sometimes assume a different character.

The inflammation, when long continued, degenerates into a chronic form, and is sometimes kept up for several years, without giving rise to any other unpleasant effects than occasional paroxysms of a dull and seemingly deep-seated pain in the face, and a vitiated condition of the fluids of the cavity.

Symptoms.—The symptoms by which this affection is characterized, though not always precisely the same, are, nevertheless, for the most part, very similar. Boyer describes them to be severe, fixed, and deep-seated pain under the cheek, extending from the alveolar border to the lower part of the orbit, local heat, pulsation, and sometimes fever. He, however, tells us that these symptoms are not always present, and that the disease sometimes exist when it is not suspected. Other affections of the face and superior maxillary, may be mistaken for this, and this for others: but that it should exist without being attended with pain or any other signs indicative of its presence, is hardly probable.

Deschamps distinguishes the symptoms from those of other affections of this cavity, by "dull, heavy pain in the region of it," which he says, "becomes sharp and lancinating," and extends from the alveolar arch to the frontal sinus. The disease goes on without interruption, increasing until the superior maxilla of the affected side is more or less involved. This malady, he tells us, cannot be confounded with any other, if there is no external visible cause; it differs, he says, from a retention of mucus, by being painful at the commencement, and by not being accompanied with swelling of the bones; he distinguishes it from polypus, as that causes no pain; and from cancer, which occasions pain of a different kind. "Suppuration and ulcers have peculiar signs which cannot be confounded with those of inflammation." Pain in the molar, and bicuspid teeth, accompanied by a sense of fluctuation in the parts, he seems to regard as a very certain indication of inflammation, and, especially, when joined to the other symptoms. "If an external cause is discovered, it," he says, "will furnish a certain diagnosis;" he also mentions fever and head-ache as almost invariable accompaniments.

The inflammation, if not subdued by appropriate remedies, after having continued for a length of time, gradually assumes a chronic form; the pain then begins to diminish, and is less constant; it becomes more dull, and is principally confined to the region of the antrum. The teeth of the affected side cease to ache, or ache only at times, but still remain sensitive to the touch. The mucous membrane of the nostril next the diseased sinus, is often tender and slightly inflamed, and if the other one be closed in the morning, or after two or three hours sleep, by pressing upon it with the thumb or one of the fingers, and a violent expiration made through it, a thin watery fluid, of a slightly fetid odor, will be discharged, and pain will be experienced in the region of the antrum.

Causes.—Deschamps, after stating

that it is produced by all those general causes which give rise to it in other parts of the body, enumerates, among what he denominates "peculiar causes," a degeneration of the humor which it pours out, "blows upon the cheek, fractures, wounds, and the extraction of teeth."

Boyer says, "it may be produced by a blow upon the cheek, by small-pox, measles," &c. but the most ordinary cause, he thinks, is caries and pain in the teeth. The two last, although not mentioned by Deschamps, are very frequently concerned in the production of this affection. All morbid conditions of the teeth and gums, that give rise to irritation in the alveolar periosteal tissue, may be regarded as among the most frequent of its exciting causes. Of the affections of the teeth that do this, caries, necrosis and exostosis may be mentioned; also, loose teeth, and the roots of such as have been either fractured in an attempt at extraction, or by a blow or fall, and left in their sockets; or that have remained after the destruction of their crowns by caries. It sometimes happens, too, that inflammation is excited in this membrane by fractured alveoli; but when an accident of this sort occurs, the detached portions of bone are generally soon thrown off by the operations of the economy, and the cause being removed, the inflammation immediately subsides. Not so with the roots of teeth. They often remain concealed in their sockets for years. Nature, it is true, makes an effort to expel them from the jaw, but this is accomplished only by a slow and very tedious process, and not, in many instances, until they have given rise to much mischief. But, of the deleterious effects that result from roots of teeth in the alveoli, it is not necessary now to speak; as extraneous bodies, they are always productive of more or less irritation.

Treatment.—The curative indications of the affection under consideration are simple, and for the most part, similar to those of inflammation in other parts of the body. "Bleeding from the arm, feet, pediluvia, antiphlogistics, mild purgatives, emollient cataplasms, anodyne applications to the cheek, fumigations to the nose, by means of an inverted funnel," says Deschamps, are the means usually employed. Originating, however, as does most frequently, inflammation of the lining membrane of the maxillary sinus, from the irritation produced by decayed, dead, or loose teeth, the removal of these, will, in most cases, be all that is necessary to accomplish a cure. This is the practice which Boyer recommends, and Deschamps says, "it is not uncommon for the disease to cease immediately after the extraction of an affected tooth." When the inflammation is severe, its reduction will be expedited by bleeding from the arm, saline purgatives and fomentations to the face. In many cases, great benefit will be derived from the application of leeches to the cheek, as recommended by Mr. Thos. Bell. The author has known the most decided advantage to result from their employment. When the disease is dependent, as in most instances it is, upon an unhealthy condition of the alveolar processes, the first thing to be done, is to remove all such teeth, or roots of teeth, as are productive of the least irritation, for, while any local sources of irritation are permitted to remain, neither topical nor general bleeding, or any other treatment, will be of permanent advantage.

This affection, as is remarked by Boyer, would be of little consequence, were it not that it is liable to give rise to other and more dangerous forms of disease; such, for instance, as a purulent condition of the secretions of this cavity, or an engorgement of it. It should never, therefore, be permitted to continue, but should be as speedily arrested as possible; and for the accomplishment of this, the means here pointed out, will, if timely and properly applied, be found fully adequate.

Inflammation of the pituitary membrane of the maxillary sinus, sometimes causes the opening into the nose to become closed, and when this happens, an engorgement of the cavity is certain to result. Various other morbid phenomena also occasionally arise from it, but the most common form of disease, resulting from it, is an altered or purulent condition of the mucous secretions of the cavity. This he proposes to notice next.

A Purulent Condition of the Secretion of the Lining Membrane.

A purulent condition of the secretions of the maxillary sinus and engorgement are often treated of under the name of abscess, but to which, neither bears the slightest resemblance. Deschamps says, "if after the inflammation has passed, the surrounding parts cease to be painful, while the affection still continues to cause pain in the antrum, and the fever, though diminished, occurs at regular intervals, and if the inflammation is followed by a pulsating pain, we will have reason to suppose that an abscess has formed in the sinus; and," he continues, "all doubts will be removed, if on the patient's inclining his head to the opposite side, matter is discharged into the nostril, or if some tubercles are formed near the outer angle of the eye, or alveolar border, which last happens more frequently; and, finally, if the purulent matter, not finding any opening through which to evacuate itself, distends the sinus to such an extent as to form a tumor outwardly upon the cheek." In short, all the symptoms which he mentions as belonging to the disease, are those accompanying the one under consideration. The matter, he says, is of a "putrid serous consistency."

Bordenave terms an altered condition of these secretions, suppuration of the membrane, which he thinks may occur without inflammation. It is evident, from what he says upon the subject, that he has confounded in alveolar abscess those cases where the matter, instead of evacuating itself, as it ordinarily does, by an opening through the alveolus and gum into the mouth, escapes into the antrum, with abscess of that cavity. Again, he asserts, that the disease (suppuration as he calls it) may be independent of the surrounding parts, and although ordinarly implicated with an altered condition of them, he affirms, it is sometimes the effect of disease primarily seated in this cavity.*

There is no doubt that a purulent condition of the fluids of this cavity is often complicated with ulceration of the lining membrane, but that the affection is at all analogous to abscess or suppuration, is evidently incorrect. "A reference to the structure of the antrum," says Mr. Bell, "would appear to be sufficient to point out the improbability, to say the least, of the occurrence of abscess in such a situation. That a mucous membrane covering, in a thin layer, the whole internal surface of such a cavity, should become the seat of all the consecutive steps of true abscess, is a statement bearing on the face of it an obvious absurdity."† Notwithstanding the seeming improbability of such an occurrence, and it is certainly one that very rarely happens, abscess does, nevertheless, sometimes form in this cavity; but, it is a different affection altogether from that usually treated of under that name as occurring here.

When complicated with ulceration of the mucous membrane—and it is probable that a purulent condition of the secretions of this cavity, in most instances, is thus complicated—the affection is precisely analogous to ozena, and, by many of the older writers, is designated by that name. Mr. Bell describes it, as being similar to gonorrhœa—both diseases equally consisting of an altered secretion; in the one, of the pituitary membrane, and in the other of the mu-

*Vide *Memoirs de l'Academie Royal de Chirurg.* vol. 12, p. 8, 12mo.

†*Anat. Phys. and Diseases of the Teeth*, p. 253.

cous lining of the urethra, which, in neither instance, possesses any of the characteristics of abscess, though the matter in both is purulent.*

An accumulation of the secretions of the antrum, whether in a healthy or purulent state, is a constant source of irritation to the lining membrane, and the pressure which they ultimately exert upon the surrounding structures, causes a new form of diseased action to be set up, involving not unfrequently all the bones of the face as well as those of the base of the cranium, and which, if not soon arrested, ultimately destroys the life of the patient. When prevented from escaping through the nasal opening, an artificial one is ultimately formed. This is sometimes effected through the cheek, at other times beneath it, just above the alveolar ridge, or through the palatine arch or alveoli, and thus a fistula is established, from which a fetid matter is almost constantly discharged. This is sometimes continued for years, while the disease in the antrum very frequently does not seem to undergo any apparent change. At other times the membrane ulcerates and the bony walls become carious.

A purulent condition of the mucous fluids of this cavity is an exceedingly troublesome and unpleasant affection. The odor from the matter is often very annoying, even to the patient, and when the secretions are retained for some days in the sinus, before they are evacuated, the fetor is almost insufferable.

The secretions of this cavity, when purulent, have mixed with it, not unfrequently, a greater or less quantity of flocculi, sometimes of so firm a consistence, as to block up the nasal opening, and prevent its exit. Mr. Thomas Bell says, he has seen more than one case in which a considerable accumulation had taken place in the antrum, accompanied by the usual indications of this affection, (muco-purulent engorgement of the sinus,) when a sudden discharge of the contents into the nose took place, "in consequence of the pressure having overcome the resistance which had thus been offered to its escape."* Cases of a very similar nature have fallen under the observation of the author; the history of some of which may be given in the course of this article. The formation of these flocculi rarely cease, except with the cure of the ulcers of the membrane. They give rise to considerable irritation, and their presence always constitutes an obstacle to the cure, though generally easily removed by injections.

The pituitary membrane of the antrum when in a healthy state, secretes, as we have before stated, a transparent, slightly glutinous and inodorous fluid, which is poured out only in sufficient quantities to lubricate the cavity; but no sooner is inflammation excited in the membrane, than its secretions become more abundant, and, at first thinner, afterwards thicker and more glutinous. Their color and consistence are not always the same. Instead of being transparent, they sometimes have a dirty opaque appearance; at other times they assume a greenish, whitish or yellowish color, and in some instances they resemble pus.

Mucous engorgement and purulent accumulations, in this cavity, are more common to young subjects than to middle aged ones, or persons in advanced life. An eminent French writer says, that of three individuals affected with dropsy (mucous engorgement) the oldest was not twenty years of age. Although these affections are more common to young persons than individuals of advanced life, they are by no means confined to the former. Debilitated habits, of every age, are subject to them.

*Anat. Phys. and Diseases of the Teeth, p. 254.

*Vide *Traite des Maladies Chirurgicales et des Operations qui leur conviennent*, tom. vi, p. 139.

Symptoms.—The symptoms of the several affections of the antrum, as has been intimated in a preceding place, are so much alike, that it is often difficult to distinguish those that belong to one from those of another. The symptoms of mucous engorgement and purulent accumulations, however, are generally such, as will enable the practitioner to distinguish, with considerable certainty, these affections from others. They are always preceded by inflammation of the lining membrane; a description of the signs of which, having already been given, need not be repeated. Omitting these, we at once proceed to mention those by which they are accompanied.

In speaking of the symptoms which more particularly belong to a purulent condition of the secretions of the antrum, Deschamps says, the affection may be distinguished by a dull heavy pain, extending along the alveolar border; but upon this symptom alone, little reliance can be placed, as it is always present in chronic inflammation of the lining membrane of this cavity. In addition to this, he mentions the presence of decayed teeth, soreness in those that are sound, and on the patient's inclining his head to the side opposite the one affected, the discharge of fetid matter from the nose. These are certainly very conclusive indications of a purulent condition of the fluids of this cavity. Bordenave, after enumerating the symptoms indicative of inflammation, mentions the following as belonging to the affection of which we are now speaking, viz. dull and constant pain in the sinus, extending from the maxillary fossæ to the orbit; a discharge of fetid matter from the nose, when the patient inclines his head to the opposite side, or when the nose is blown from the nostril of the affected side. These symptoms are mentioned by almost every writer upon the subject, as indicative of the affection in question.

The symptoms of engorgement differ materially from those which denote simply a purulent condition of the mucous secretions of this cavity. The pain instead of being dull and heavy, as just described, becomes acute, and a distressing sense of fullness and weight is felt in the cheek, accompanied by redness and tumefaction of the integuments covering the antrum. The nasal opening having become closed, the fluids gradually accumulate until they fill the sinus, when finding no egress, they press upon and distend the surrounding osseous walls, causing those parts which are thinnest ultimately to give way. These effects are generally first observable anteriorly beneath the malar eminence, where a smooth hard tumor presents itself, covered by the mucous membrane of the mouth. But this is not always the point which first gives way, the sinus sometimes bursts into the orbit, at other times outwardly through the cheek, or through the palatine arch. The long continued pressure thus exerted upon the bony walls of this cavity, often cause them to soften and give way.

A distention of the walls of the sinus, says Deschamps, may be distinguished from other diseases that affect the skin or intermediate structure between it and the bone, by the uniformity or irregularity of the tumor, its firmness at the commencement, the slowness with which it progresses, and, above all, by the natural appearance of the skin, and the absence of pain when pressure is made upon the tumor. An obliteration of the nasal opening, he says, may be suspected by the dryness of the nostril of the affected side, the mucous membrane of which becomes thickened, and the cavity contracted; inflammation and sponginess of the gums, loosening, and, sometimes, (in consequence of the destruction of their sockets,) displacement of the teeth, may also be mentioned as occasional accompaniments of engorgement.

Causes.—Inflammation of the lining membrane, no matter how produced, is

the immediate cause, and this, as has been before shown, results more frequently from alveolo-dental irritation than from any other cause. The author is not the only one of this opinion—it is maintained by almost every writer upon the morbid affections of this cavity. The teeth most frequently concerned in the production of irritation of the lining membrane of the antrum, are the first and second superior molares, but it is sometimes caused by the bicuspides, dens sapientiæ, and even cuspidati.

Engorgement of the maxillary sinus is attributed to several causes, among which, are blows upon the cheek, caries of the teeth, &c., &c. But, whatever may be the exciting or primary causes, it is certain that the proximate or immediate cause, is, the closing or obliteration of the nasal opening. This, like a purulent secretion, may be produced by inflammation and thickening of the lining membrane, which is, perhaps, the most frequent cause.*

Treatment.—The curative indications of muco-purulent secretion and engorgement of the maxillary sinus, are, 1st. If the nasal opening be closed, the evacuation of the retained matter; 2d. The removal of all local and exciting causes of irritation; 3d, and lastly, the restoration of the lining membrane.†

For the fulfilment of the first, an opening must be made into the antrum, and this should be effected in that part which will afford the most easy exit to the retained matter; but as it regards the several methods that have been proposed for the accomplishment of this object, practitioners differ; and before we proceed further, it may not be amiss to notice some of the various methods that have been adopted.

Dr. Drake, an English anatomist, and author of a work entitled "Anthropologia Nova," has the credit of being the first to propose a plan for evacuating accumulated fluids from this cavity, and the method adopted by him for effecting this object, consists in the extraction of a molar tooth and the perforation of the sinus through the alveolus of one of its roots. This method of treatment, however, is said by some to have been inserted into Drake's Anatomy by Dr. Cowper, an eminent anatomist and surgeon.* Having never seen any evidence touching the correctness of this conjecture, we suppose its truth is, probably, somewhat questionable. M. Gûnz says, the credit belongs to John Henry Meibomius, who, a long time before, proposed a very similar method of treating these affections.† Henry Meibomius, many years after the death of his father, John Henry, proposed for the evacuation of accumulated fluids in the antrum, the extraction of one or several teeth.‡ But, the perforation of the maxillary sinus through the alveolus of a molar tooth, is said not to be the most ancient method. Molinetti, as early as the year 1675, describes an opening made through the cheek into the antrum, the walls of which, after having been exposed by a crucial incision through the integuments covering it, was penetrated with a tre-

*Fouchard says, in the Anatomical Mus. of the University of Copenhagen, he saw caries of the bones of the face produced by a molar tooth, the crown of which having turned outwards, had penetrated the maxillary sinus. *Mem. de l'Academie de Chirurg.* vol. v, mem. 257. Also the fangs of the bicuspides and front molaris sometimes penetrate the sinus. *Bertin Osteologie*, vol. xi, p. 309—*Portal Camp. d'Anatomie Medicale*, vol. i, p. 210. Note 2.—*My Uerzichniss*, No. 3278; there are in the Bresl. Mus. No. 8128, two teeth, as it were absorbed, which had been drawn out of the maxillary sinus.—*Otto's Compend. of Comp. Anat.*

†Vide *Anat. Phys. and Diseases of the Teeth*, p. 259.

**Heister's Surgery*, note to chapter 72, p. 445.

†Vide *Mem. de l'Acad. Royale de Chirurg.* 12mo. vol. xii, p. 12.

‡Vide *Discurs. de Abscessibus Internis*, Dresd. 1718, page 114, and *la Dissertation d'Gunz.*

phine. The perforation of this cavity through the alveolus of a superior molaris, is an operation which, according to Velpeau, was performed by Zwinger, a long time before it was performed by Meibomius; and Vanuessen says, Ruysch extracted several molares and cauterized their sockets, for the destruction of a polypus, until an opening was made into the antrum large enough to admit the finger. Drake, according to Bordenave, seems, nevertheless, to be entitled to the credit of having been the first to perforate the maxillary sinus through the alveolus of a molar tooth, by means of a punch, for the evacuation of accumulated fluids, and the injection of the cavity. We are also informed by the same author, that Cowper treated a case of maxillary ozena, which had caused a large quantity of ichorous and fetid matter to be discharged through the nose, by extracting the first molaris and perforating the antrum through the alveolus with an instrument suited to the purpose.

It is not at all probable that Meibomius was the first to propose the perforation of the antrum through the alveolus of a molar tooth, for his researches were not published until 1718, twenty-one years after the publication of Drake's System of Anatomy, and, besides, he regarded the perforation of this cavity as a dangerous operation, and, on that account, confined himself simply to the extraction of a tooth. Saint Yves, says Velpeau, treated with success a person affected with fistula, the floor of whose orbit had been destroyed by the removal of a tooth.

With regard to the tooth most proper to be extracted, authors differ. Cheseldon preferred the first or second molaris. Junker recommends the extraction of the first or second bicuspis, and if a fistula had formed, to enlarge it, instead of perforating the floor of the antrum. It is at present pretty generally conceded, that the second molaris, it being directly beneath the most dependent part of the cavity, is the most suitable tooth to be removed. If this be sound, the first molaris, den sapientiæ, or either of the bicuspides, if carious, should be extracted in its stead, and, in fact, none of the teeth in an unhealthy condition should be permitted to remain.

An opening having been effected through the alveolus of a tooth into the antrum, it should be kept open until the health of the cavity is restored. For this purpose, sounds and bougies adapted to the purpose have been introduced. Heuerman recommends the employment of a small canula, which is also preferred by Bordenave and Richter, the latter of whom says, it should be kept closed to prevent particles of food from getting into the sinus. But, whether a canula or bougie be introduced into the opening, it should be so secured as to prevent it from coming out or passing into the antrum, which may be done by fastening it to one of the adjoining teeth, as recommended by Deschamps.

Lamorier recommends perforating the antrum immediately above the first molaris, or rather between it and the malar bone. In this, he seems to have been influenced by the considerations that the wall of the cavity here presents the least thickness, and that this is the most dependent part of the sinus. But he did not always deem it necessary to make a perforation here, when a fistulous opening had previously formed in some other place. His method of operating is as follows: the jaws being closed, the angles of the mouth are drawn outwards and slightly upwards with a curved instrument called a speculum; this done, the gum is incised across the malar apophysis, or maxillo-labial sulcus, and the bone made bare, which is next pierced with a spear-pointed punch. The opening is afterwards enlarged if found necessary.

Desault is of the opinion that the opening should be made through the canine fossa, beneath the upper lip, and

for that purpose, after having laid bare the bone, he employs a sharp triangular and a blunt-pointed perforator, which he invented for the operation. Runge, says Velpeau, used nothing but a scalpel. Mr. Charles Bell invented a trephine for the purpose, but this, it is thought, does not possess any advantage over the instruments employed by Desault and Runge. In cases of fistula in the cheek from the antrum, Ruffel advises the insertion of a trocar, to be carried through the gum, so as to form a counter opening. Through this, in a case which he treated, he passed a seton, and it remained six weeks; at the expiration of this time, a cure was accomplished. This practice has been followed by Callisen, Zang, Busch, Henkle, Bertrandi, Faubert and others. Callisen is of the opinion, that when the tumor points in the palatine arch and fluctuation is felt, the artificial opening should be formed there. Gooch, says Velpeau, in a case which he treated, advised the perforation of the antrum through the nasal surface, and fixing in the opening a canula of lead. We are also informed by the same author, that, Acrel, after having operated in the manner proposed by Cowper, inserted a second canula into the sinus through a fistulous opening formed in the nose. The method attributed to Wienhold, consists in penetrating the sinus from the upper and external part of the canine fossa, with the instrument directed obliquely downwards and outwards, so as to avoid the branches of the infra-orbital nerve; and then placing in the opening, thus made, a little lint. Wienhold, directs, that when the antrum has no other opening, the instrument should be carried entirely through the palatine arch, and then by means of a curved needle and thread, he introduces a roll of lint saturated or covered with some appropriate medicine, and this he designs to act as a seton.

Velpeau says, the perforation is effected "in the point of election or of necessity. The first varies according to the ideas of the operator. The circumstances, on the contrary, determine the second. In cases of abscess, dropsy, fistula, and ulceration, the operation is almost always performed in the place of election. Then, provided one of the molar teeth be unsound, it must be extracted, together with the adjoining tooth; the gum is then to be cut down to the bone, externally; internally, behind and before, forming a kind of a square flap, and to be completely detached from the surrounding tissues; after this, the alveoli are to be perforated with the instruments of Desault, and an opening made large enough to admit the finger into the sinus." For the evacuation simply of purulent mucus, or accumulated fluids, the author believes with Boyer, that the opening should always be made from beneath; and he is the more convinced of the importance of giving the alveolus of an extracted tooth the preference, from the consideration that it is to the irritation produced by some one or more of these organs, that this affection is attributable. Even though a fistula may have been formed above the alveolar ridge, beneath the cheek, or in the palatine arch, we should not neglect to extract such teeth, whether carious or sound, as may be productive of irritation. It may not always in such cases be necessary to perforate the sinus from the socket of a tooth, though the cure in most instances would be expedited by it.

Jourdain, an eminent French dentist, and graduate in surgery, instead of seeking egress for matter accumulated in the maxillary sinus, by any of these methods, proposed, in a memoir which he presented to the Academy in 1765, to probe the cavity by its natural opening, and then by suitable injections to restore it to health. The Academy gave this proposition its attention: it was carefully and minutely discussed. The practicability of obtaining entrance into the sinus in this way was called in

question; it was contended that the difficulties presented by the peculiar structure of the parts were such that they could seldom be overcome; but to remove all doubt upon the subject, a trial was determined on.

While this subject was before the Academy, M. Allouel, Jr. claimed the credit of the discovery for his father, who, he said, made it in 1737, and treated with success in 1739, a case of disease of the antrum by throwing injections into it through the natural opening. But the Academy determined that inasmuch as M. Allouel had never published it, Jourdain could not have borrowed it from him, and was, therefore, entitled to the credit of being the discoverer. It is certain that he was the first to announce it to the world.

The instruments employed for probing and injecting the sinus are, says Bordenave, 1st, a small silver sound with a button on one end, and a plate in the form of a heart at the other, to be held between the forefinger and thumb of the operator: 2d, a hollow sound without either button or plate, containing a stilet of whalebone, with its extremity extending beyond the sound between the fingers: 3d, a small syringe, with a pipe adapted to the hollow sound. The two first instruments should be curved something like the letter S, and vary a little in size.

The treatment of affections of the maxillary sinus by injections through the nasal opening, having been almost entirely abandoned, a more minute description of the instruments employed for the purpose is not deemed necessary. It may be well, before dismissing this part of the subject, to state that the Academy, when this method of treatment was proposed by Jourdain, at once appointed commissioners to investigate its merits, who, after having made a number of trials, came to the conclusion that the introduction of a sound by the nasal opening, although perhaps possible, was so exceedingly difficult, that it could seldom be effected. They attempted it upon each antrum of five subjects, and the result proved that the sound pierced the membranes between the turbinated bones more frequently than it entered the sinus by the natural opening. Their report was, therefore, unfavorable, and Bordenave, in remarking upon this method of gaining access to the cavity, states, that while the membranes between the ethmoidal and inferior turbinated bones may be pierced without causing serious injury, it induces us, when it happens, to suppose that we have entered the sinus by the natural opening, which "goes to prove that the operation is as difficult as it is uncertain." He adds, however, that while there are cases in which the use of injections through the natural opening will suffice to effect a cure, these would succeed in only a very small number of the cases, inasmuch as these diseases result more frequently from morbid conditions of the teeth than from any other causes.

The only advantage then, as is justly remarked by the last named author, to be derived from injections, is the cleansing of the membrane of the antrum, or the disgorgement of the cavity, and this, while the cause remains, will not suffice to effect a cure, while the removal of this, and giving vent to purulent or accumulated fluids, will, of themselves, in most instances, be all that is required to bring about a healthy action. The cure, no doubt, will many times be greatly facilitated by the employment of suitable injections, but that these exercise as great a curative influence as many imagine, the author has yet to be convinced. They may in those cases where a morbid action has been kept up so long in the mucous membrane of this cavity, as to have nearly destroyed its power to re-act, be highly serviceable, but the difficulty of doing this through the natural opening, as is shown by the result of the experiments of the commissioners appointed by the French Academy,

and those of others who have attempted it, is such as must forever preclude their introduction in that way.

Moreover, M. Allouel and Jourdain, who have attempted to establish the efficacy of injections, by the citation of cases, seem to have overlooked the agency which the removal of the causes, during the employment of the injections, had, in bringing about the cure; so that arguments advanced by them in favor of their method of treatment do not prove any thing in its favor. "They might," as Bordenave justly observes, "just as well have been cured without as with them." Boyer, in alluding to the method proposed by Allouel and Jourdain, asserts that it is opposed both to reason and experience. It is also condemned by almost every writer upon the diseases of this cavity.

When the natural opening is closed, the first indication, as has been stated, is the evacuation of the matter, and for this purpose, a perforation should be made into the sinus, and the most proper place for effecting this, it has been shown, is through the alveolar cavity of the second molaris. It may, however, be penetrated from that of either of the other molares or bicuspides. The perforation, after the extraction of the tooth, is made with a straight trocar, which will be found much more convenient than those usually employed for the purpose. The point of the instrument after having been introduced into the alveolus, through which it is intended to make the opening, should be pressed against its bottom in the direction towards the centre of the antrum. With the handle of the instrument in the hand of the operator, a few rotary motions will suffice to pierce the intervening plate of bone. If the first opening be not sufficiently large, its dimensions may be increased to the necessary size, by means of a spear-pointed instrument. In introducing the trocar, care should be taken to prevent a too sudden entrance of the instrument into the cavity. Without this precaution, it might be suddenly forced into it and against the opposite wall. The entrance of it, is usually attended with a momentary severe pain, and its withdrawal followed by a sudden gush of fetid mucus, or of muco-purulent matter.

It is not always necessary to perforate the floor of the antrum after the extraction of a tooth; it occasionally happens, as has already been remarked, that some of the alveolar cavities communicate with it.

An opening having thus been effected, it should be prevented from closing, until a healthy action shall have been established in the lining membrane, and for this purpose a bougie, or leaden or silver canula, may be inserted into the opening and secured, in the manner previously described, to one of the teeth. It should, however, be removed for the evacuation of the secretions of the antrum at least twice a day. The establishing of an opening at the base or most dependent part of the sinus, will, in those cases where a fistula has been previously formed, in most instances, be followed by its speedy restoration. Having proceeded thus far, the cure will be aided by the employment of such general remedies as may be indicated by the state of the constitutional health, and for the reduction of the local inflammation, leeches to the gums and cheek will be found very serviceable. The antrum should, in the meantime, be injected with, at first, some mild or bland fluid, and afterwards with gently stimulating liquids. Diluted port wine, a weak solution of the sulphate of zinc, and rose water, and of sulphate of copper and rose water, have been recommended. Diluted tinct. of myrrh may sometimes be advantageously employed, and when the membrane is ulcerated, a weak solution of the nitras argentum will be highly serviceable. For correcting the fetor of the secretions of this cavity, a weak solution of the chloride

of soda or lime, may be injected into the antrum once or twice a day.

The following are the formulæ of Mr. Thomas Bell: ℞.—Zinci sulphat, grs. vi., aqua rosæ, f. ʒ vi. M. ℞.—Cupri sulphat, grs. iv., aqua rosæ, f. ʒ vi. M. In addition to the above, he recommends the subjoined: ℞.—Tinct. myrrh, ʒ i. decoct hordei, f. ʒ vi. M.

This should at first be used very weak, say in the proportion of one grain of nit. arg. to two ounces of soft water. Its strength, however, may, if necessary, be gradually increased.

Dr. Isaac I. Greenwood, of New York, employed with success, in a case of muco-purulent secretion of the antrum caused by an alveolar abscess, "suds made from tepid soft water and old castile soap," and he mentions another, treated in the same way by his father, the late Mr. John Greenwood.

In cases of muco-purulent secretion simply, a weak decoction of galls may be injected into the sinus with advantage.

Injections of a too stimulating nature are sometimes employed. This should be carefully guarded against by making them at first very weak, and afterwards increasing their strength as occasion may require; but when symptoms of a violent character are in this way produced, they should be combated by leeches to the gums and fomentations to the cheek.

But, dependent as these affections in most instances are, upon local irritants, greater reliance is to be placed on their removal, and giving vent to the acrid puriform fluids in the sinus, than to any therapeutical effects exerted upon the cavity by injections. As adjuvants, they may be serviceable, but a cure cannot be accomplished while the exciting cause remains unremoved. For a report of a number of highly interesting cases of an altered condition of the fluids of this cavity and engorgement, the reader is referred to the author's Principles and Practice of Dental Surgery.

Abscess.

Abscess in the maxillary sinus, although very rare, does sometimes occur. The structure of the parts composing this cavity, would seem, as has been remarked by Mr. Bell, to render the occurrence improbable, and if the fact were not well established, it might perhaps be doubted. If the apices of the roots of some of the superior molares did not occasionally perforate the floor of this cavity, the occurrence of abscess in it would indeed be rare, but, as the antrum is sometimes thus penetrated, its formation here is not, after all, a matter of so much surprise. An abscess is as liable to form at the apex of the root of a tooth penetrating this cavity, as at that of one in its alveolus, but it is very seldom that one is found seated in any other place in it. The case described by Mr. Bell was supposed to be the only well authenticated one on record. But Bordenave gives the history of a case of a disease of the maxillary sinus,* so similar to the one described by Mr. B., that there can be little doubt in regard to the nature of it. In both instances, the affection was seated in the upper part of the antrum beneath the orbit. It is unnecessary to say more at present concerning these cases; for a description of which, the reader is referred to the author's Principles and Practice of Dental Surgery.

Dr. Hullihen, in a well written article in the American Journal of Dental Science,† contends that abscess of the antrum as well as alveolar, consists in the effusion of pus, formed in the pulp cavity of a tooth, "between the bone and lining membrane." But this view of the subject would seem to be incorrect, from the fact that abscesses are as frequently formed in the sockets of dead teeth as living ones. The matter from alveolar ab-

*Vide *Mem. de l'Acad. Royale de Chirurg.* vol. 12, ed. 12mo. obs. xi, p. 31.

†Vide vol. ii, page 179.

scess, in those cases where the plate of bone intervening between the extremity of the root or roots of a superior molaris or bicuspis, as the case may be, being thinner than the surrounding osseous walls, often escapes into this cavity, after having first, as Dr. H. justly remarks, effused itself between the bone and lining membrane. In this case, it cannot properly be termed an abscess of the antrum. Although the matter escapes into this cavity, which, in consequence, becomes involved in disease, yet the disease having originated in the alveolus of a tooth, which is still its principal seat, would be, in the strictest sense of the term, an alveolar abscess. It not unfrequently happens that pus, from an abscess formed in the socket of a superior molaris, discharges itself into this cavity and escapes through the nasal opening for months and sometimes for years; for after an abscess has once formed at the apex of the root of a tooth, purulent matter will continue to be formed, though not always in the same quantity, until the irritant that caused it is removed. The pulp of a tooth may suppurate, and the matter be confined in the cavity of the tooth for a long time, or, be discharged through a decayed opening in the crown communicating with the internal cavity, without causing alveolar abscess. The purulent matter contained in the sac at the extremity of the root of a tooth, is never altogether formed in the cavity of the organ. The pus discharged from an alveolar abscess is oftentimes greater than that which could be formed by the suppuration of the soft tissues contained within the cavity of a tooth, and, besides, after this matter has once discharged, it cannot be again reproduced here, as the process of decomposition can no longer be carried on, and, consequently, any matter which may afterwards accumulate in the cavity of the tooth, is secreted by the soft parts about the extremity of the root. A tubercle or sac having formed here, is seldom removed by any operation of the economy.

The apices of the roots of the first and second superior molares, when they do not actually perforate the floor of the antrum, are often above its level, and covered by only a very thin shell or cap of bone, and hence in case of an abscess in one of these, although strictly alveolar, the matter is more liable to make for itself a passage into this cavity, than through the gum into the mouth. When this happens, it gives rise to inflammation of the lining membrane and causes its secretions to become more or less vitiated, and often leads to an erroneous opinion concerning the real nature of the disease.

It is only when the root of a tooth actually penetrates the floor of the antrum, or the tubercle at its apex becomes situated in it, that the abscess, properly speaking, can be said to be of this cavity. When the root of the tooth does penetrate it, the tubercle, although formed at its apex around the nerve cord, is between the lining membrane and periosteal tissue, both of which, in the immediate vicinity become directly involved in the inflammation, and this sometimes extends itself to every part of the cavity, causing, in some instances, an obliteration of the nasal opening. This, however, does not often occur, but when it does, is followed by engorgement of the sinus, and, occasionally, by ulceration of its lining membrane, and disease in the surrounding bone.

It is sometimes the case, that the plate of bone intervening between the extremity of the root of a tooth, around which a tubercle has formed, and the antrum is destroyed, and the tubercle, instead of being wholly confined within the alveolus, is forced up, as it enlarges, almost entirely into this cavity. The inflammation after having attained a certain height, is succeeded by suppuration, and and the secretion of pus goes on until the sac bursts, when the matter is discharged, and, mixing with the mucous

secretions of the antrum, ultimately escapes with them, through the nasal opening, into the nose.

As it regards the morbid effects produced upon the lining membrane and surrounding bony parietes, by an abscess of this kind, it is of little consequence whether it be formed in this cavity, if the matter be discharged here, or in a subjacent alveolus. The effects are about the same in one case as in the other. If the general health of the patient be good, and the natural opening of the sinus remain pervious, they seldom assume an alarming character; under other and less favorable circumstances, the most dangerous and aggravated forms of disease may result from an abscess seated in either place.

Symptoms.—In the incipient stages of abscess of the maxillary sinus, the symptoms are similar to those that characterize inflammation of the lining membrane of this cavity, or violent inflammatory tooth-ache. The pain is generally most severe in the upper part of the alveolar ridge, above some one of the molar or bicuspid teeth. From thence, it often extends to the lower part of the orbit, ear, temple, muscles of the cheek and scalp. It is more or less constant, and a throbbing is felt high up in the alveolar border beneath the cheek. If the abscess originates at the apex of the root of a tooth, this organ will be slightly elongated and sore to the touch; the cheek in most instances is a little tumefied and more or less flushed.

The pain, after having continued for several days, is succeeded by suppuration, when it immediately subsides. Slight paroxysms of cold and heat are now felt, and if the natural opening of the antrum be not closed, purulent matter will occasionally be discharged.

If the abscess be seated in any other part than the base of the antrum, the symptoms may differ in some respects from the foregoing. If purulent matter, or mucus mixed with pus, be discharged from the nostril of the affected side, when the patient inclines his head to the opposite one, or makes a sudden and forcible expiration through it, while the other is closed, the existence of abscess in this cavity, will be very conclusively indicated.

The abscess having burst, pus will be discharged from it, from time to time, for several days, which will escape through the nasal opening, if not closed, with hardened flocculi or other foreign matter, and then it will cease altogether or very nearly so. The disease, however, if the cause still remains, is by no means cured. A recurrence generally occurs every time the patient takes cold, when all the symptoms just described will be again experienced, and each succeeding attack leaves the parts in a more unhealthy condition, and as a consequence more susceptible to the action of morbid irritants.

Causes.—It will not be necessary to say much concerning the causes of abscess of the antrum. It is sufficient to state, they are the same as those of tooth-ache; namely, inflammation of the alveolo-dental periostea and lining membrane of this cavity, which may be excited by caries of the teeth, a blow, or a dead or loose tooth, and by exposure to sudden changes of weather. Other causes may sometimes be concerned, but the foregoing are the principal, and all which it is necessary to enumerate.

Treatment.—In the cure of abscess of the maxillary sinus, as well as that of a muco-purulent condition of its secretions or engorgement, the first and most important indication to be fulfilled, is to obtain an opening for the escape of the matter. The best method of doing this has before been described, and it is unnecessary to recapitulate the directions already given for the accomplishment of this object.

The formation of abscess might, however, in almost every instance, be prevented by the timely adoption of proper

treatment. On the occurrence of severe, deep-seated and throbbing pain in the upper part of the alveolar ridge or just above it in the region of the antrum, such as has been described as attending the formation of abscess in this cavity or that of the alveolus of a superior molaris; or if the tooth directly beneath the place where it was first felt, be considerably decayed, or its lining membrane exposed; or if it be dead, loose, or the socket much diseased, it should be immediately extracted. By this simple operation, the formation of abscess, not only in the socket, but also in the antrum, may, in the majority of cases, be prevented. If it be not followed by an immediate subsidence of pain, leeches should be applied to the gums and fomentations to the cheek. If the patient be of full habit, and there be any general febrile symptoms, saline purgatives may also be employed with advantage. But, the extraction of the tooth, in most cases, will be all that is required to arrest the progress of the disease.

The curative indications, if the abscess be of recent formation, and has resulted from the presence of a diseased tooth, are similar to the preventive. The first thing to be done is to remove the tooth that caused it, and if this operation be not delayed too long, it, in most instances, will be all that is necessary to effect a cure. In addition to this, Dr. Hullihen recommends the perforation of the antrum; but in those cases where the abscess has formed at the apex of the root of a molaris, this is not necessary; because, in all such cases, the alveolus communicates with this cavity, so that on the removal of the tooth, there will be a sufficiently large opening into it; besides, the tubercle or sac, although situated within the sinus, is, in nearly every instance, brought away with the tooth.

When the abscess has been of long standing, and the lining membrane of the antrum become seriously affected, in addition to the removal of the tooth, other treatment will have to be resorted to. The opening into the antrum, if necessary, should be enlarged, and it should be prevented from closing until the health of the lining membrane is restored; and for the promotion of this, injections, such as have been previously recommended, will be found serviceable.

In cases of simple abscess of the antrum, seated at the apex of the root of a superior molaris, the author never found it necessary to adopt other treatment than the foregoing. It may, however, in some instances, be necessary to remove more than one tooth, though that be the one that gave rise to the abscess.

Ulceration of the Lining Membrane.

Ulceration of the lining membrane of the maxillary sinus, is, we believe, always dependent upon some other morbid condition of this cavity, and when it occurs, it often gives rise to some of the worst forms of disease to which it is liable. It is not a simple disease, but is complicated with some other morbid affection, and is generally preceded by a purulent condition of the secretions of the lining membrane, and often followed by fungi, and sometimes by caries of the surrounding osseous walls. The membrane covering the floor of the antrum, is usually first attacked; but ulceration having commenced here, it generally soon extends to other parts of the sinus, and is frequently accompanied by ulceration of the lining membrane of one or both of the nasal cavities; and ulceration of the latter is sometimes mistaken for ulceration of the former. The existence of ulcers in the antrum can only be inferred from certain signs; but when seated in the nose, they can almost always be seen. The matter secreted by ulcers situated here, exhales a less fetid odor than that of ulcers of the maxillary sinus. This of itself, says Deschamps,* will enable us to determine, almost to a cer-

* *Maladies des Fosses Nazales*, sec. 2, art. vi, p. 262.

tainty, the seat of the disease. There are other signs that will assist us in ascertaining its location. The foregoing, however, are sufficient, especially when taken in connecton with symptoms that precede the formation of the ulcers.

Ulcers of the maxillary sinus present as great a variety of character as do those of other parts of the body. Their nature is determined by the state of the constitutional health and the causes that produce them. It is not necessary to go into a minute description of the various kinds of ulcers that are here met with. The following varieties have been met with; namely, the simple, or those resulting from mechanical injury; the fungous, scorbutic, venereal, cancerous, gangrenous, scrofulous, inveterate, carious, &c.

In the simpler species of ulcer, the matter is of a thick consistence and nearly white, but as the disease increases in malignancy, it becomes thinner, and varies in appearance from a transparent to a dirty brown, yellow, or black.

Symptoms.—Many of the symptoms of ulceration of the mucous membrane of the maxillary sinus, are similar to some which accompany other affections of this cavity; as for example, deep-seated heavy pain in the cheek; occasional escape of matter into the nose, &c. In addition to constant pain in the region of the antrum, the following may be mentioned as signs indicative of ulcers of this cavity. The escape of a fetid sanies into the nose on the patient's inclining his head to the opposite side, or through an opening which it has itself effected, or that has been formed by art for its escape. Also, the traversing of the ulcer from the interior through the bony walls of the cavity and external soft parts. An opening of this sort may be effected through the cheek, near, or even into the orbit, which last has often happened; at other times it is effected through the canine fossa or palatine arch. Moreover, the matter escaping from the sinus, often has flocculi mixed with it, which is never the case, in simple muco-purulent secretion of the sinus. These flocculi sometimes choke up the natural opening of the cavity and cause its secretions, together with those of the ulcers, to accumulate, and distend its osseous walls until they ultimately give way, or an opening is formed for their escape. It occasionally happens that the flocculi which have gotten into the nasal opening, and thus prevented the egress of the fluids secreted here, after choking up this conduit for a long while, suddenly give way and permit the matter to pass into the nose.

When the ulcer is of a fungous character, the matter secreted by it, is thin and of a dark brown or blackish color, and has mixed with it blood and pus.* It is, says Deschamps, slightly painful, and can only be distinguished from other ulcers by the introduction of the bougie into the sinus; and like polypus, it is capable of spreading and penetrating every opening that will give it passage; but in consequence of the morbid growth being of a softer consistence, it makes less impression upon the surrounding parts.

If the ulcer be of a cancerous nature, the pain will be sharp and lancinating and affect the whole of the side of the face; the matter will be serous, very fetid, and streaked with blood. If it is discharged through the natural opening into the nose, it will cause the pituitary membrane of the nasal cavity of the affected side to become exceedingly irritable, sensitive to the touch, and ulcerate. The bones of the affected side of the face soon become softened or carious, the teeth loosen, the external soft parts inflame and ultimately ulcerate; openings are formed into the sinus, fever of a low grade supervenes, and ultimately death closes the scene.

* *Maladies des Fosses Nazales*, sec. 2, art. vi, p. 263.

Causes.—A degenerated or altered state of the secretions of this cavity, is said to be the most common cause of ulceration. This may be an exciting cause, and it may be one of the most frequent exciting causes, but were it not favored by a constitutional predisposition, it would seldom give rise to it. Local irritation, whether produced by an altered condition of the fluids of this cavity or by the presence of decayed or dead teeth, the roots of teeth, or a blow upon the cheek, may be, and doubtless is, the exciting cause of ulceration of the mucous membrane of this cavity. This, however, in a subject of good constitutional health, would have to be very severe and continue for a long time, to result in ulceration, and even then, a cure would soon be effected by the restorative powers of the economy. It is only in bad habits, or debilitated constitutions, that malignant ulcers are often met with in the maxillary sinus.

Deschamps, although he acknowledges that diseased teeth often exercise a morbid influence upon this cavity, and that the apices of the roots of these organs are sometimes in contact with its mucous or lining membrane, seems, nevertheless, to doubt that they have any agency in the production of ulcers. His reasoning upon the subject, is far from satisfactory. While he admits, by the contact and adhesion of the dental periosteum and mucous membrane of this cavity, by the penetration of its floor by the roots of teeth, inflammation and ulceration may be produced, he denies that it can be positively proven. Although we may not be able to adduce positive evidence, the circumstantial proofs which we have, are so clear and strong, that no candid inquirer could for a single moment doubt, that the disease in question, when favored by a bad habit of body, often results from dental or alveolar irritation. In reply to the question, which he a little further on propounds, "How can the extraction of a tooth be of service in the subduction of inflammation of the mucous membrane with which the dental periosteum is only simply in contact?" we answer, by this operation a constant source of irritation may be, and often is, removed. Ulcers having absolutely formed, a cure cannot always be effected by the removal simply of the exciting cause.

Inflammation of the lining membrane of the maxillary sinus, and as a consequence, an altered condition of its secretions, may, it cannot be denied, be produced by other causes than irritation resulting from a diseased condition of the teeth, and it is to this, that ulceration here, is attributable.

Treatment.—As in the case of engorgement, the first indication of cure is to give egress to the purulent matter, and for this purpose an opening should be formed at the most dependent part of the sinus; this may be effected in the manner as before described, through the alveolar border, or rather the alveolus of a molaris; and it should be made large enough to admit the little finger, and if there be any teeth so much decayed as to be productive of irritation to the parts subjacent to the antrum, they should be removed.

Free egress for the matter having been obtained, and all local irritants removed, the antrum should be injected from time to time, with gently stimulating and detersive fluids. This, in cases of simple ulcer, if the constitutional health be not seriously impaired, will, often, be all that is necessary to effect a cure.

If the ulcer be of a fungous nature, the employment of escharotics, and, sometimes even the actual cautery, becomes necessary; this last should be repeated until the fungi are completely destroyed. With regard however to the employment of escharotics, such as the nitrate of silver, blue vitriol, &c., for the purpose of destroying luxuriant granulations in ulcers, it has been proposed to combine them with some other sub-

stance, so as to prevent them from immediately destroying the granulations.

The surface of the ulcer should, if practicable, be kept clean by means of dossils of dry lint or pledgets spread with some simple ointment. The treatment of ulcers of this cavity, is usually attended with more difficulty, on account of their concealed situation, than those of most other parts of the body. Among other things, Deschamps recommends injections of a decoction of quinine. In many cases a lotion of sulphate of zinc may be used with advantage. The remedies to be employed in the treatment of ulcers of the maxillary sinus, as in the treatment of ulcers of other parts, should be varied to suit the indications of each particular case. In debilitated subjects, tonics, as quinine and preparations of steel, are said to be highly serviceable. There are some cases in which mercurials are very beneficial. Strict attention should always be paid to the regimen of the patient, and such general treatment adopted as may be best calculated to restore the constitutional health, for upon this, the cure of the local affection often depends.

If the ulcer be of an irritable nature, warm fomentations, (conveyed to the interior of the antrum by means of a properly constructed funnel,) of a decoction of poppy heads, chamomile flowers, or the leaves of hemlock, will often prove beneficial in soothing the pain. Tincture of myrrh, diluted, or a decoction of walnut leaves may be advantageously employed as injections in cases of indolent ulcers—the last of which, is recommended as an application to ulcers of this character in other parts of the body by Hunezawsky, and both of which are favorably spoken of by Sir E. Home. This last named writer recommends "diluted sulphuric acid and the juice of the powder of different species of pepper in a recent state;" also nitrous acid diluted with water. The unguentum hydrargyri nitrate, mixed with lard; the ceratum resinæ, and the unguentum elemi, mixed with the balsam of turpentine, are also recommended. The application of ointments to ulcers of this cavity is always attended with inconvenience, and on this account they are less easily cured when seated here than when situated in other parts of the body.

Many of the ulcers of the maxillary sinus are regarded as incurable, as, for example, such as are of a cancerous nature, and ulcerated fungus hæmatodes. Although the resources of surgery have hitherto, in most instances, proved inadequate to the cure of these formidable diseases, nevertheless, they should be put in requisition, and we should endeavor to combat them by every means in our power. Deschamps says, the interior of the antrum should be exposed at the commencement of the disease. He recommends the formation of a large opening, if the alveolar ridge be healthy, above it, if not, through it. As much of the cavity as possible should be exposed. This done, he directs, if there be a cancerous tumor, that it be as thoroughly extirpated by means of a curved and flat bistoury or curved scissors as possible. All that may have escaped removal by this means, he says, should be touched with the actual cautery. These, he says, are the only remedies "to be employed when the membrane is in a state of cancerous ulceration." The surgeon, he adds, "should destroy the parts in such a way as to leave only the osseous surfaces, and he should pay some attention to these bony parts, which also, he should carefully cauterize." The disease having been thus removed, the surrounding osseous walls that have been cauterized will soon exfoliate, when a chance for a cure will be afforded, and of which, if the neighboring parts have not been so extensively invaded, nature will avail herself. The administration of soothing and anodyne medicines are also directed. Arsenic has been em-

ployed with advantage as an external remedy in ulcers of this kind.

There are other kinds of ulcers of this cavity, but it is not necessary here to describe the treatment for each of the various forms which this description of disease puts on. Particular and ample directions for each are laid down by writers on affections of this kind, and though they may not have special reference to their occurrence in the antrum maxillare, they will, for the most part, be found as applicable, as when the ulcers are seated in other parts of the body.

The history of several interesting cases of ulceration of the lining membrane of this cavity, is contained in the author's Principles and Practice of Dental Surgery.

Caries, Necrosis, and Softening of the Bony Parietes.

The bony parietes of this cavity, and sometimes the whole of the subjacent alveolar border, and superior maxillary; the nasal, palatine and orbital bones, as well as some that belong to the base of the cranium and the malar bone, are involved in caries or necrosis. Mollities ossium, though rarely occurring in the alveolar ridge, frequently affects the walls of the sinus. Caries may affect a considerable portion of both for a long time, without completely destroying the vitality of the diseased parts. During its continuance a fetid sanies will be discharged from one or more fistulous openings through some part of the cheek, alveoli, gums, palatine arch, or into the sinus, and from thence through the natural opening into the nose. The disease eventually terminates in the decomposition and death of the parts affected, and then by an operation of the economy, this is separated from the living bone and thrown off, or in other words, is exfoliated. Although caries ultimately causes the death of the bone affected by it, it does not always precede the destruction of vitality in osseous tissues. The occurrence of necrosis, therefore, although it may result as a consequence of caries, is not necessarily dependent upon it.

When the walls of the antrum or alveoli are affected by necrosis, the soft parts in contact with the diseased or dead bone, inflame, ulcerate and discharge a fetid ichorous matter. The gums sometimes become gangrenous and slough. The destruction of the vitality of the osseous parts often progresses very slowly, and thus piece after piece is exfoliated until the disease is arrested.

Besides these affections, it not unfrequently happens that the osseous parietes of the antrum, are so softened as to be easily bent. This alteration of the bone, as well as the others just noticed, are, in nearly every instance, preceded by some other affection of this cavity.

The annoyance occasioned by caries and necrosis of the bony walls of this cavity or of the alveoli, to the unhappy patient, is very great. The fetor of the sanies is sometimes almost insufferable; and the matter often excoriates and inflames the parts with which it comes in contact to such a degree, as to cause them to become exceedingly sensitive and not unfrequently to ulcerate.

Symptoms.—It is sometimes difficult to distinguish caries and necrosis of the bony parietes of the antrum from some of the affections that seat themselves within this cavity. They, therefore, often exist for a long time without being suspected. The signs that indicate mollities ossium or softness of the walls of this cavity, are such, as not to be easily mistaken for those of any other affection. In this disease, the walls of the sinus yield to pressure, and regain their former shape when the pressure, is removed. Its existence, therefore, may always be known by these signs, and as these are sufficient, it is not necessary to enumerate any of the others by which it is characterized. Caries

and necrosis not being so easily detected, often make considerable progress before their existence is ascertained. The fetor and appearance of the matter discharged, do not always furnish a diagnosis that can be relied upon, inasmuch as some of the diseases that occur within this cavity, cause its secretions to become equally as offensive as the sanies resulting from caries, or necrosis, and not unlike it in appearance. Their existence may, in most instances, be inferred, from the discharge of dark fetid sanies. The exfoliation of pieces of bone will set all doubt at rest.

Caries or necrosis may often be detected by perforating the antrum and exposing the denuded or diseased bone; or when there is an external opening, by probing it. In this way any loose or dead bone may be felt with the instrument; and the diagnosis in either case will be satisfactory.

When caries or necrosis is situated in the alveolar border, or floor of the antrum, its existence can be more readily ascertained. The occurrence of either in the alveolar ridge, causes the gums to inflame; to assume a dark purple or livid appearance; to separate from the sockets of the teeth, and frequently to slough in large pieces and expose the caried or necrosed bone. When situated in the floor of the antrum, the rough denuded bone may be easily felt with a probe or stilet, introduced through the fistula in the gums or alveolus of a tooth from which the matter is discharged.

The pain acompanying these affections does not constitute a diagnosis of much importance, since this is said not to belong to the osseous tissue, but to the soft parts that cover it.

Causes.—Caries, necrosis and other alterations of the osseous walls of the maxillary sinus are thought by some to result, very frequently, from certain specific or constitutional vices; such, for example, as the venereal, scorbutic, scrofulous, cancerous, &c., independently of any previous morbid condition of the soft parts. We have yet to be convinced, that disease ever occurs in an osseous tissue, except in the teeth, while the soft parts in contact with it, are in a healthy state. The author is of the opinion, therefore, that the contrary supposition is gratuitous. A bad habit of body or constitutional vice may, perhaps, increase the susceptibility of the bony tissues of the body to morbid impressions, but it is questionable whether it ever gives rise, independently of the condition of the soft parts with which they are connected, to actual disease in them.

The immediate cause of caries and necrosis of the osseous walls of the antrum maxillare, is the destruction of the periosteum, caused by inflammation or ulceration. These last may result from a purulent condition of the secretions of the mucous membrane of this cavity, engorgement, abscess, from the presence of foreign bodies, tumors, a blow upon the cheek or from other kinds of mechanical violence. They may also result from the irritation produced by diseased teeth. The pressure of incarcerated fluids may perhaps be regarded as the most frequent cause; and from this too, results some of the most aggravated forms of disease that ever attack the maxillary sinus.

A morbid action kept up in the periosteum for a long time, by ulceration of the lining membrane, or any other aggravated form of disease in the sinus, or neighboring soft parts, is apt, especially in bad habits, to result in caries of the bone, but when the inflammation is so severe as to cause the immediate destruction of the periosteal tissue, necrosis at once takes place.

The softening of the bone seems to be the result of the action of some solvent fluid upon it, capable of decomposing or breaking down its calcareous molecules. Although inflammation and ulceration are always present, and appear necessary to the exudation of this

fluid, its production, nevertheless, seems to be dependent upon some peculiar state or habit of body.

Thus it is, from other affections of this cavity, that those now under consideration are attributable.

Treatment.—Complicated as are, most frequently, caries, necrosis and alteration of the osseous walls of the maxillary sinus, with other affections of this cavity, their cure is often difficult and generally tedious. The first indication to be fulfilled, however, in their treatment, as in the case of engorgement, and of a muco-purulent condition of the secretions of the sinus, is to obtain free egress for any fluids which may have accumulated in it. This should be effected in the manner before described, by the extraction of a molaris or bicuspis, and the perforation of the base of the cavity through its socket. In addition to this, if the disease of the osseous tissue be complicated with any other affection of the sinus, the means necessary for the cure of the disease with which it is complicated, should at once be employed. It is not necessary here to describe the treatment of the other diseases of this cavity; inasmuch as that has already or will hereafter be done.

Deschamps, in treating upon the affections of the osseous walls of this cavity, after stating that the perforation or opening in it should be large enough to expose the seat of the disease, recommends the employment of detersive and stimulating injections, a decoction of quinine, tinct. of myrrh and aloes, &c., &c. These last, he says, may be introduced as injections or by means of pledgets moistened in them. He also directs the cavity to be "cleared of all foreign matter which may have obtained admission into it." This treatment, having a tendency to promote a healthy action in the lining membrane of the sinus, will often be all that is required. It should be continued until the caried or necrosed bone has exfoliated, and the secretions of the antrum cease to exhale an offensive odor. The dead bone, however, having exfoliated, a cure is generally soon effected.

It sometimes happens that the disease of the bone has been produced by some very malignant and incurable affection of the soft parts. In that case, the resources of art, will, of course prove unavailing. When the disease of the bone has extended itself to the greater part of the superior maxillary and the bones with which it is connected, as, for example, the nasal, palatine, orbital, &c., the most that can be hoped for, from the skill of the physician, is a palliation of the symptoms. Art in such cases, can seldom effect a cure. There are other cases in which it can only retard the progress of the disease, or assist nature in her efforts to separate the dead from the living bone.

It is impossible to lay down rules for the treatment of alterations of the walls of the maxillary sinus, from which it will not be necessary occasionally to deviate. It will be sufficient to state, that in those cases, where they are extensively involved in caries or necrosis, it will be proper, in addition to perforating the base of the sinus, if by this means the dead bone cannot be so exposed that it may be detached from the living, to cut away the whole of the alveolar border beneath the cavity, or to penetrate the sinus above it, or even, as Deschamps recommends, "through the cheek itself, whether there be an ulcer penetrating these parts or not." Having by this means exposed the necrosed bone, it should be carefully detached from that which is sound, and removed. By this, the disease interiorly will be more fully exposed, and a better opportunity afforded for applying such other remedies as its peculiar nature may call for. It is important that the sinus should be kept clean, and the air kept from it, and whenever any loose pieces of bone are discovered, they should be removed. Their exfoliation should not,

as is justly remarked by the author last quoted, be hastened, by improper interference, unless the state of the patient's health be such as to render it absolutely necessary, for, by so doing, a piece of bone that is still attached to the soft parts may be broken. While this should be carefully avoided, all dead pieces, isolated from the soft parts, should be detached from the sound bone with which they may be connected, and removed.

The character which the affections of this cavity put on, being determined by the state of the constitutional health, or some particular vice of body, it often becomes necessary, in their treatment, to have recourse to general remedies. If the subject be of a scrofulous or scorbutic habit, or is affected with any specific constitutional vice, such remedies as are indicated by the affection of the general system under which he may be laboring, should be employed. It is not necessary to describe the signs by which the various habits of body and constitutional vices are designated, nor is it essential to point out the curative treatment respectively required by each. Full and ample directions upon these subjects will be found in works devoted especially to the affections of the general system.

Although the character and malignancy of the disease are determined by the state of the constitutional health, or disposition of body, its occurrence seems to be dependent upon local irritation. Its continuance, in many instances, results from this; and the cure, in cases of this kind, soon follows the removal of the cause that gave rise to it.

It sometimes happens when a very large opening has been formed through the inferior part of this cavity, that it does not always readily close. This does not often occur, except the natural opening has become obliterated. When the parts do not manifest a disposition to unite, the practice introduced by Bordenave and Scultet, which consists in cauterizing the interior circumference of the opening, will, in most instances, prove successful. If this and all other means fail, the opening should be closed by means of an obturator of fine gold. This should be accurately fitted to the parts, and secured, by means of a broad clasp, to a molar or bicuspid tooth, and if there be none suitable on the side of the mouth to which it is to be applied, the gold should be extended to one on the opposite side. If it be necessary to replace the teeth lost with artificial ones, these may be so mounted that the plate upon which they are set, shall cover the opening into the maxillary sinus, and thus obviate the necessity of any other obturator.

Tumors of the Lining Membrane and Periosteum.

The lining membrane and periosteal tissue of the maxillary sinus occasionally become the seat of fungous and other tumors, and, in consequence of the concealed situation of the cavity, they often make considerable progress before they attract attention; hence, treatment which might otherwise frequently prove successful, is, in most instances, unavailing. The presence of a tumor here, may give rise to all the diseases to which its osseous walls are liable, as well as to most of the affections incident to the lining membrane. As soon as a morbid growth has filled the sinus, it, as it continues to augment in size, presses upon the lining membrane, excites inflammation, and sometimes ulceration, causing its secretions to become vitiated and unhealthy; the periosteum soon becomes diseased, followed by softening, caries or necrosis of the surrounding osseous tissues, and, ultimately, one or more fistulous openings are formed through the cheek, alveoli, or palatine arch. These are among the most common effects that result from tumors of this cavity. As they increase in volume, they gradually

distend and displace its bony parietes; the floor of the orbit is sometimes elevated, and the eye more or less forced from the socket; the palatine arch and alveolar ridge are depressed, the teeth become loosened and drop out, and when the tumor is of a soft fungus nature, it not unfrequently escapes through the alveoli into the mouth, and after forcing the jaws asunder to their greatest extent, protrudes from it in enormous masses. Bertrandi gives the history of a case of polypous excrescence of the antrum, which, after having destroyed the palate, anterior part of the maxillary bone, and filled the mouth, forced itself up into the orbit, elevated its roof, pressed upon the brain, and ultimately occasioned apoplexy and death. Other similar cases are on record. Mr. Cooper says there are three specimens of diseased antrum in the museum of London University College, in which the tumor in two had "made its way from the antrum to the brain." The third was taken from a patient of his, which had died. The tumor in this case, which was of a medullary and scirrhous character, forced itself up into the orbit, displaced the eye, and ultimately caused the death of the patient. The same author mentions another case, the subject of which was a boy in St. Bartholomew's Hospital, who had a tumor of the antrum which "made its way through the orbitar plate of the frontal bone and cribriform plate of the ethmoid into the cranium," and though the portion that entered the brain was as large as a small orange, he says the boy was only in a comatose state about forty-eight hours previously to his death.

Tumors occupying the maxillary sinus do not always originate in its lining membrane or periosteum. They sometimes arise from the pituitary membrane of the nose, frontal sinus, or ethmoidal cells, and after having found their way into this cavity, augment in in size, until they produce the effects just described. Some suppose that the morbid productions found here, originate more frequently in the cells of the ethmoid bone, than in the lining membrane of this cavity.* The author is disposed to believe that this opinion is not well founded, and that it has chiefly resulted from the great liability of most kinds of tumors of the maxillary sinus, to be reproduced after having been extirpated, which is often attributable to the continuance of the cause that gave rise to them in the first instance, or to their imperfect removal. That they do, however, sometimes originate in the ethmoidal cells, there can be no question.

It sometimes happens that tumors having their seat in the antrum, after having filled it, make their way into the nose, where they acquire a size equal to, or even greater than, that which they had previously attained, thus dividing themselves, as it were, into two parts—one occupying the antrum, and the other, one of the nasal cavities. Occurrences of this sort are not unfrequent, and they sometimes lead to the adoption of an incorrect opinion, with regard to the real seat of the disease. Thus a polypus of the antrum is occasionally mistaken for one of the nose, and the error frequently not discovered, until an attempt is made to remove it.

The character of morbid growths in this cavity is exceedingly variable, as much so as is the state of the constitutional health of different individuals, and the causes that give rise to them. They not only vary in their appearance and structure, but they vary in their malignancy. Some are of a healthy flesh color, soft, sensitive, but not painful, and present a smooth, regular surface; others varying in their consistence from hard to soft, and in their color from a pale yellow to a deep red or purple, present a rough, irregular, and not

* Vide *Traite des Maladies de la Bouch*, t.i. p. 210, &c.

unfrequently ulcerated surface, and are more or less sensitive to the touch. Some have their origin in the mucous membrane, and others, both in this, and the periosteum. Some are attached by a broad base, and others, only by a mere peduncle.

As it regards this latter description of tumors, which are usually designated by the name of polypi, their occurrence in the maxillary sinus is questioned by some writers. Sir Benjamin Brodie does not believe that they ever form in this cavity ;* and in this opinion Mr. S. Cooper fully concurs; but that they are occasionally met with here, seems, nevertheless, to be pretty conclusively established. A case described by M. Bertrandi in his Treatise on Operative Surgery, page 369, has already been referred to, and Bordenave, in his observations on the diseases of the antrum maxillare, gives the history of a case treated by M. Doublet. Rusch declares that he has twice seen polypus of this cavity, and Petitt, Levrette and other writers also affirm that they have witnessed polypi here.† The occurrence, then, of polypi in the maxillary sinus, although very rare, it must be admitted, does sometimes happen. Other descriptions of tumors are certainly more frequently met with in this cavity. Of these, some are of a simple fibrous, sarcomatous, or osteo-sarcomatous, nature,‡ and when thoroughly extirpated, are seldom reproduced; others are of a medullary, cancerous, or carcinomatous character. These last, although originating in the mucous membrane, if long neglected, are very liable to be reproduced after their removal and generally occasion the death of the patient.

Tumors in the maxillary sinus seldom grow very fast during the early stages of their formation; but, as they enlarge, the neighboring parts become involved in the diseased action, and, consequently, furnish them with fluids less healthy in their qualities, and thus cause them to assume a character of greater malignancy, and, generally to increase more rapidly in size.

Symptoms.—The occurrence of tumors in the maxillary sinus is rarely accompanied, previously to their having obtained a size sufficiently large to fill it, by symptoms differing materially from those occasioned by many of the other affections that locate themselves here. After they have filled the sinus, the indications soon become less equivocal. Swelling of the cheek, depression of the palatine arch and alveolar ridge, loosening of the superior molar teeth of the affected side, inflammation and sponginess of the gums, elevation of the floor of the orbit, and protrusion or concealment of the eye, are symptoms which result from the presence of tumors in this cavity, but they are not peculiar to these affections alone; many of them are produced by mucous engorgement of the sinus. When to these is superadded the discharge of a bloody sanies from the nose, or from one or more fistulous openings through the cheek, alveolar ridge, or palatine arch, the diagnosis will be conclusive; and the existence of a tumor in the antrum be established beyond doubt.

There are also other signs by which the occurrence of a morbid growth in this cavity may be known; as, for example, the dropping out of the superior molares of the affected side, and the protrusion of portions of the tumor through the alveoli.

The pain is seldom severe until the tumor has filled the cavity, except the excrescence be, from its inception, of a malignant character; as it augments in size, and forces the walls of the sinus asunder, it becomes more and more

* Vide *London Medical Gazette* for December, 1834, p. 850.

† Vide *Traite des Maladies de la Bouch*, tom. 1, p. 212, *and sur cure des Polypes de la matrice de la gorge, et du nez*, p. 253.

‡ Vide *Professor Reese's Appendix to Cooper's Surgical Dictionary*, American edition, 1842.

severe. Sometimes, during the progress of the disease, it becomes almost excruciating. In a case of fungus hematodes of this cavity, which the author, a few years since had an opportunity of witnessing, the patient was in the habit of taking upwards of two tea-spoonsful of black drop at a time, for the procurement of ease and sleep.

In addition to the foregoing symptoms, several of the affections already treated on, together with all the effects produced by them, not unfrequently result from tumors in this cavity. Inflammation and ulceration of its lining membrane, a purulent condition of its secretions, caries, necrosis, and a softening of its osseous walls, seldom fail to follow some of the stages of the formation of the morbid productions under consideration. It is unnecessary to mention the symptoms peculiar to each variety of tumor, as they are given by writers on general surgery.

Causes.—Tumors of the maxillary sinus are dependent, for the most part, upon both local and constitutional causes. Scorbutic and scrofulous habits, and persons whose general health has been impaired by certain constitutional diseases—such as the venereal, protracted inflammatory and bilious fevers, dyspepsia, &c., are most subject to tumors of this cavity. Every thing, in fact, which has a tendency to increase the irritability of the soft tissues of the body may be considered as so many predisposing causes. The local causes are the same as those of most other morbid affections of this cavity. Diseased teeth, gums and alveolar processes, are, probably, among the most common. The irritation produced by these so frequently extends itself to the antrum, that their agency in the production of tumors here, cannot be questioned. There are, however, other causes of irritation to which this cavity is exposed, as blows upon the cheek, wounds, &c.

Treatment.—It is only in the early stages of the formation of tumors in the maxillary sinus, that surgical treatment can be adopted with success, and even then, their entire extirpation is necessary. If this be not accomplished, a speedy return of the disease may be expected. But, preparatory to the removal of the diseased structure, a large opening should be made into the antrum, so as to expose as much of it as possible; and with regard to the most proper place for effecting this, Deschamps recommends, when the alveolar ridge has been started, the removal of the first or second molaris, and the perforation of the sinus through its socket with a "three-sided trocar of suitable dimensions." When the alveolar ridge and teeth are sound, he directs the opening to be made through the outer wall of the sinus above the ridge, and this he thinks, on account of its being more direct, is preferable to the other mode. An opening may be easily effected in either way into the sinus, as its walls are generally so much softened as to offer but little resistance.

When the opening is made through the external parietes, the instrument recommended by Mr. Thos. Bell, to be employed for cutting away the bone after it has been exposed, is a "strong hooked knife," which is probably as well adapted to the purpose as any that could be used. Some surgeons employ strong curved scissors, but the hooked knife is probably preferable.

A free opening having been effected into the antrum, a finger of the operator should be introduced, and the nature of the diseased structure ascertained. This done, he will be enabled to determine the proper procedure to be had recourse to for its removal. If the tumor is of a polypous nature it may be seized with a pair of forceps and torn away; if it be attached by a broad base, its extirpation will be most readily effected with a knife. It is often exceedingly difficult to effect its total removal even with the knife, so that it not unfrequently be-

comes necessary to employ the actual cautery; for, if any small portions be left behind, as has before been stated, a re-production of the disease will generally very soon take place. When the disease has originated, or is seated, in the periosteum, the cautery is the most effectual means of preventing its return. The French surgeons have applied it with great success. Desault, in a case of fungous tumor, succeeded in effecting a cure after three applications. The root of the disease, by the employment of this, can often be destroyed, when less effectual means would fail. But it is important when it is had recourse to, that it should have such a degree of heat, as to accomplish this object instantaneously, else the inflammation that would otherwise be excited by its application, in the surrounding parts, would greatly retard, if it did not prevent the cure. The remarks of Mr. Thomas Bell upon this subject, who says, "the white heat should be employed," are worthy of attention.

In remarking upon the bold practice of the French surgeons in the treatment of these affections, the author just quoted says, it "is worthy of our praise and imitation;" and, continues he, "the timidity which, until very lately, almost excluded the use of the actual cautery in this country, has been one cause, and that a very prevalent one, of failure in the treatment of some of these cases; but it is not so easy to account for the still more culpable dread, which has in so many instances prevented any attempt from being made to extirpate the disease; a degree of pusillanimity which is at once an opprobrium on the profession, and a fatal injustice to the sufferers, who, thus abandoned to the unrestrained progress of the disease, are left to perish by a lingering and most painful process, without even an attempt being hazarded for their relief."

The foregoing comparison, instituted by Mr. Bell, between the practice of the French and English surgeons in the treatment of tumors of the maxillary sinus, is certainly correct, and, it is due to truth to say, that the bold practice of the former, has been fully and successfully emulated by American surgeons. Dr. A. H. Stevens, professor of surgery in the University of New York, in 1823, in a case of fungous tumor, attached by a broad base to the lower part of the antrum, removed a large portion of the lower and anterior parts of the upper jaw. The patient recovered and is said to be living at the present time.* In 1841, Dr. J. C. Warren, of Boston, for a case of cephalomatous tumor of this cavity, removed the superior maxillary bone. This operation was, also, successful.† The same operation was performed soon after, and for the removal of a tumor of the antrum with success, by R. D. Mussey, of Cincinnati, Ohio;‡ and Dr. Fare, of Columbia, South Carolina, has performed the operation twice with success.

The operation for the removal of the superior maxillary, did not originate with American surgeons. Velpeau says it was performed by Acoluthus in 1693, for a tumor of the face.‖ By reference, however, to the history of the case as given in a memoir of the Academy of the Curiosities of Nature,§ it will be perceived that the tumor originated in the maxillary sinus, and that only a part of the jaw-bone was removed. If, however, we can believe Wiseman, this most formidable operation was performed at a still earlier period. He says in his Surgery, the first edition of which was published in 1676, "that he cut into a man's cheek, sawed in pieces the alveolus, and took out the whole jaw, and cured him."¶ Although the op-

* Appendix to *Cooper's Surgical Dictionary*, p. 30.

† *Boston Medical and Surgical Journal* for 1842.

‡ *Western Lancet* for 1842.

‖ *Velpeau's Operative Surgery*, p. 263.

§ *Decad* 3, ann. 4o. obs. 57.

¶ Vide *Wiseman's Surgery*, p. 285.

eration may have been performed thus early, it does not at all detract from the credit due to modern surgeons, since the method of effecting it, is, at least, original with them.

Thus it is perceived, that the disease under consideration not unfrequently calls for one of the most formidable operations in surgery, and that by it, many unfortunate sufferers have been snatched from the very jaws of death. Notwithstanding the performance of this operation, the application of the cautery often becomes necessary to prevent a reproduction of the excrescence, and there are many cases in which it cannot be repressed by this. The result of the most thorough and best directed treatment depends on the state of the constitutional health and the nature of the disease. In depraved habits and shattered constitutions, if the tumor be of a carcinomatous character, a cure need never be expected.

The hemorrhage, during the operation for the removal of tumors of the antrum, is sometimes so profuse as to require very prompt and active means to arrest it. It may, generally, however, be controlled by the employment of compresses, ligatures, and suitable styptics, but should these fail, the actual cautery must be had recourse to. See Jaw, Upper, excision of.

The maxillary sinus is sometimes occupied by fungous tumors, originating in the alveoli of the molar teeth, or from the roots of these teeth. The following is a case which came under the observation of the author in February, 1846.

In conclusion, the author would remark, that professor Pattison proposed in 1820, for the dispersion of fungous tumors of the maxillary sinus, tying the carotid artery. He was induced to recommend this method of treatment, from the consideration, that the "capability of action of a part, is proportioned to its vascularity," and that thus by cutting off the circulation of blood to it, the morbid growth would slough and be thrown off. He says this practice has been successful where it has been adopted, in all the cases that have come to his knowledge.*

Exostosis of the Walls of the Maxillary Sinus.

The osseous walls of the maxillary sinus sometimes become the seat of bony tumors—a disease designated by the name of exostosis. This, however, is not an affection peculiar to the bony parietes of this cavity; all of the osseous structures of the body are liable to be attacked by it.

Exostosis, like many other diseases, presents several varieties. It is divided by some writers into true and false, the one consisting of a tumor composed wholly of bone, or nearly so, and the other, of a tumor composed both of ossific matter and fungous flesh, or of a mere thickening of the periosteal tissue. Sir Astley Cooper divides exostosis into periosteal, medullary, cartilaginous and fungous. The first consists of a deposition of bony matter on "the external surface of a bone and the internal surface of its periosteum," and to both of which it firmly adheres. The second consists of "a similar formation, originating in the medullary membrane and cancellated structure of the bone;" this description of exostosis never attacks the walls of the maxillary sinus. By cartilaginous exostosis, he means "that which is preceded by the formation of cartilage, which forms the nidus for the ossific deposit." Fungous exostosis he describes to be a tumor not so firm in its consistence as cartilage, but harder than fungous flesh, having interspersed through its substance spicula of bone, of a malignant character, and dependent upon some peculiar constitutional diathesis, and action of vessels. This species of exostosis differs but little, if at all, from osteo-sarcoma.

*Vide *Appendix of Surgical Anatomy of the Head and Neck*, pages 477-8.

Exostoses differ as much in shape as they do in structure. They sometimes rise abruptly from the surface of bones by a narrow and circumscribed base, projecting in large irregularly or spherically shaped masses; at other times they rise very gradually, covering a larger surface of the affected bone, but less massy and with limits less perfectly defined. An exostosis has been known to occupy the whole extent of the surface of a bone. "The whole external surface of one of the bones of the skull was found occupied by an exostosis, while the cerebral surface of the same bone was in a natural state."* Both sides and the whole thickness of bones are occasionally affected by this disease. This is what Sir Astley Cooper calls periosteal exostosis.

Exostosis is said to attack some bones more frequently than others. Those of the skull, the lower jaw, sternum, humerus, radius ulna, femur, tibia and bones of the carpus are said to be most subject to it. It is also very frequently attacks the upper jaw, and none of the bones of the body, in fact, are exempt from it.

The texture of exostoses is sometimes spongy and cellular, at other times very dense. Dr. E. Carmichael, a distinguished surgeon and physician, formerly of Fredericksburg, but now of Richmond, Va., described to the author, a few years since, an exostosis of the superior maxillary, which had, a short time before, fallen under his observation, larger than a hen's egg, and as solid as ivory. Exostoses of the roots of the teeth are always hard, exceeding in density, very frequently, even toothbone; and instances are sometimes met with of osseous tumors upon other bones possessed of nearly an equal degree of solidity. Exostoses of this description grow less rapidly than those which are more cellular; but they sometimes acquire a very large size. It is not, however, uncommon for such, after having attained a greater or less size, to cease to grow, and "remain stationary" through life, without giving rise to any very serious or unpleasant consequences.

Exostoses sometimes attain an enormous size, and especially upon cylindrical bones; very large ones, too, are frequently met with upon the maxillæ. The largest one of the maxillary sinus, of which medical history furnishes any account, is exhibited upon a specimen of morbid anatomy, presented in 1767, by M. Beaupreau, to the French Academy. A description and drawing of this tumor is contained in the Memoirs of the Royal Academy of Surgery, but we have no account of the history of its formation, nor of the symptoms that resulted from it. The tumor occupies the whole of the right maxillary sinus, and several of the neighboring bones are involved in it. It is very large near its base and projects from the lower part of the orbit, forward and downward, six inches. Its largest circumference, is said to be one foot. The upper part of the maxillary bone, says Bordenave, projects on the side of the orbit, and straightens the cavity; the *os unguis* is included in the mass of the tumor, and is represented as being nearly effaced. The nasal bones of the left side are displaced, and the right nostril entirely closed up, and the exostosis projects so much on the left side as to be nearly underneath the malar bone. The inferior part of the maxillary bone, says our author, is so extended near its base, that it inclines obliquely to the left, and the pterygoid apophyses of this side are larger than those of the other. The malar bone is described as being involved in the upper and external part of the exostosis, which extends to the left maxillary bone.

Exteriorly, says Bordenave, the tumor had a smooth and polished appearance, its upper part was very hard, in-

*Vide last American edition of *Cooper's Surgical Dictionary*, p. 362.

feriorly its substance had become thinner, was wanting in some places, and the interior of the exostosis was exposed. The substance of the bone was spongy and serous, and in appearance, not unlike pumice stone. The walls were thick, and measured in some places one inch.*

From this brief description, taken from the one given by Bordenave, some idea may be formed of the dimensions and appearance of this enormous and most remarkable exostosis.

A case of exostosis of each antrum, is described by Sir Astley Cooper, both of which forced themselves up into the orbits, and pushed the eyes from their sockets. One made its way into the brain, and caused the death of the patient.

Mr. Thomas Bell does not believe in the occurrence of "true exostosis upon the bony parietes" of this cavity, but too many examples have presented themselves to leave any room for doubt upon the subject. Although none may ever have fallen under his own immediate observation, there are many well authenticated cases on record—the details of a number of which we have given in another place. Apart from these, we think it would be difficult to assign any sound reasons for supposing that the osseous walls of this cavity should be more exempt from the disease than the other bones of the body.

Symptoms.—The attacks of exostosis of the walls of the maxillary sinus, are generally so insidious, that the presence of the disease, is not, for a long time, even suspected. Those which result from venereal vice, Boyer says, are preceded by acute pain, extending at first to almost every part of the affected bone, but which afterwards confines itself to the affected portion. Those which are occasioned by scrofula, the same writer tells us, are attended by a duller and less severe pain; the symptoms of those resulting from causes purely local, such, for example, as a blow, are very similar. These signs are common to the disease wherever it may be situated, and when it is seated in the maxillary sinus, they do not distinguish it from many of the other affections that occur here; for they are often produced by them, as well as by exostosis. Furthermore, the disease, not unfrequently gives rise to other symptoms which are attendant upon several of the other affections of this cavity, so that previously to the distention of its walls, it may be confounded with inflammation of the lining membrane, or sarcomatous or other tumors. After it has filled the sinus, or very considerably thickened its exterior walls, it will cause them to offer a firmer resistance to pressure, than will any of the other diseases of this cavity. When, therefore, they have become distended, if they are firm and unyielding to pressure, the presence of exostosis may be inferred.

Causes.—There is a difference of opinion among writers on the diseases of the bones, with regard to the causes of exostosis. Certain constitutional diseases, such as "scrofula and lues venerea," are thought by some to give rise to the affection. That the last of these diseases is favorable to its production, is, we believe, admitted by all; but Sir Astley Cooper declares that no evidence has yet been been adduced to prove that the former is ever concerned in its production. Others impute the disease to local irritation produced by contusions, fractures, &c. It is probably dependent upon both local and constitutional causes, and that neither, independently of the other, is capable of producing it.

Treatment.—A variety of plans of treatment have been recommended for this disease, and Bordenave assures us it may be cured, if suitable remedies are applied before it has acquired much solidity. Assuming that it sometimes

*Vide *Memoires de l'Academie Royale de Chirurgie*, t. xiii, obs. xii, p. 412.

results from constitutional causes, he directs that the treatment should be commenced by the employment of such means as are indicated by the nature of the vice with which the patient may be affected. If a venereal vice be present, the use of mercurial medicines are recommended. The author last mentioned, says he has known it to be successfully treated with mercury. Topical applications, such as fomentations and cataplasms, have also been found serviceable. Boyer advises poultices of linseed meal, and a decoction of the "leaves of henbane and nightshade." Iodine and mercury have been employed, but not, so far as the author is aware, with any decided advantage. Sir Astley Cooper thinks the best internal remedy, is "oxymuriate of quicksilver, together with the compound decoction of sarsaparilla." The author, however, believes with Boyer, that a dispersion of an exostosis can never be effected, Its progress may, perhaps, be partially arrested, but is never removed by the action of the absorbents; and it is not advisable to remove a tumor of this sort, unless it continues to augment, and is likely to become dangerous, or productive of serious inconvenience.

When, therefore, the remedies which have been mentioned, after having been thoroughly tried, prove unsuccessful, the tumor should be fully exposed; first, by the dissection of the gum and other soft parts from the exterior wall of the sinus, and secondly, by the perforation of this cavity with a trephine, or such other instrument as can be most conveniently employed. This part of the operation, though simple, should be conducted with care. If the tumor be large and attached by a very broad base, its removal will sometimes prove more difficult, yet by means of suitably constructed saws, scissors, knives, trephines, &c., it may, in most instances, be easily effected. An external wound through the cheek should always, if possible, be avoided.

Dr. B. A. Rodrigues, of Charleston, S. C., removed an exostosis from the maxillary sinus, a few years since, and the patient was restored to perfect health.

Exostosis of the maxillary sinus often gives rise to other morbid conditions of this cavity, the remedial indications of which should be properly attended to, as should also those of any constitutional affection, vice, or habit of body that the patient may be laboring under at the time.

When the exostosis is not complicated with any other disease of the cavity, the restorative energies of nature, after its removal, will generally be all that is required to complete the cure.

Maxillary Sinus, Wounds and Fractures of. The walls of the maxillary sinus are sometimes fractured by blows and pierced by sharp-pointed instruments. Fouchard mentions a case, in which a canine tooth had been driven up into it.* This is an accident that rarely happens. The instance here alluded to, is, we believe, the only one on record; and as might be supposed, it was followed by severe pain, and it ultimately gave rise to a tumor upon the cheek near the nose, and three fistulous openings, from which a fetid matter was discharged. The sinus having been opened, and the tooth taken from it, a cure was at once effected.

It often happens when the walls of the sinus are fractured from a blow or other mechanical violence, that portions of the bone and foreign bodies are driven into the cavity, and which, remaining there, become a constant source of irritation to its lining membrane, and, not unfrequently, a hidden cause of other and more malignant forms of disease. Bordenave describes the case of a French officer, who had the walls of one of his maxillary sinuses fractured by a fragment of a bomb. Dressings were applied to the wound, but it did not heal, and upon examination, some-

*Le Chirurgien Dentiste, tom. 1, page 391.

time after by M. Allouel, several pieces of bone and a splint which nearly filled the cavity were found. These were removed, but a cure was not immediately effected; a fistulous opening still remained, and it was not until a long time after, when another splinter came away, that the external opening healed. The same writer mentions the case of a man who had a nail forced head foremost, by the discharge of a gun, into his right cheek and maxillary sinus. The opening became fistulous, and although the point of the nail was subsequently discharged, it was not until M. Faubert had removed the remaining part, that the fistula closed.

Wounds of the antrum are almost always complicated with fractures of its osseous parietes, so that the effects resulting from them are more to be dreaded than those which would be produced simply by the penetration of it with a sharp instrument.

Treatment.—The nature and extent of the injury inflicted, should determine the treatment most proper to be adopted for wounds of this cavity. Complicated as they, in most instances, are with the presence of extraneous substances in the sinus, the removal of these constitutes the first, and, not unfrequently, the only remedial indication. This should never be neglected. When any extraneous bodies, or portions of bone, have been forced into the sinus, these should first be all carefully removed. The external wound should next be dressed with adhesive slips so as to prevent the formation of an unsightly cicatrix. If constitutional symptoms supervene, they should be met with appropriate remedies.

Maxillary Sinus, Foreign Bodies in it. That foreign bodies are sometimes introduced into the maxillary sinus through wounds penetrating its exterior parietes, has already been shown, but that they should gain access to it in any other way, would seem almost impossible. The smallness and peculiar situation of the opening which communicates with it, is such, one would think, as to preclude the introduction of extraneous substances of any kind through it, yet they have been found here when they could not have gained admission in any other way. There are several well authenticated cases on record in which worms have been found in this cavity. The case mentioned by Bordenave in Obs. 12, p. 380, vol. 13 of the Memoirs of the Royal Academy, of a diseased maxillary sinus, from which several worms were at different times discharged, does not prove that they obtained admission into it through the nasal opening, and thus, as some writers have conjectured, gave rise to the disease with which it was affected. In this case, a fistulous opening from the cavity, had existed for a long time previously to the discharge of the worms from it, and it is very probable that they introduced themselves through this aperture. A cause sufficient to have produced the disease in the sinus had been operating for two years, immediately preceding its manifestation. The patient during the whole of this time was affected with pain in the superior teeth of the affected side.

Deschamps says, his colleague of la Charité Hospital, found a worm in the maxillary sinus of a soldier, whom he was dissecting, four inches long; and the same writer informs us that a similar example is furnished in the Journal of Medicine. The particulars of a case which came under the observation of Mr. Heysham, physician of Carlisle, taken from a work entitled Medical Commentaries, are contained in Cooper's Surgical Dictionary. The subject of this case was a strong woman, sixty years of age, who was in the habit of taking a great deal of snuff. She was affected for a number of years with severe pain in the region of the maxillary sinus, which "extended over one side of the head." She was never entirely free from this pain, but it was

greater in cold than in warm weather, and for the purpose of obtaining relief she had been twice salivated, and had taken various anodyne medicines. The pain, however, instead of being mitigated by these means, became more severe. Her teeth on the affected side were all extracted, and as a last resort, the maxillary sinus was perforated. This, for several days did not give any relief. Injections of bark and "elixir of aloes," were thrown into it, and "on the fifth day a dead insect" of more than an inch in length, and as thick as a "common quill," was removed from this cavity.

Instances of the introduction of insects or foreign bodies of any description into the antrum, through the nasal opening, fortunately, are exceedingly rare. The Memoirs of Medicine do not furnish more than four or five well established examples.

Symptoms.—The signs indicative of the presence of insects or foreign bodies in the maxillary sinus, are so obscure, that the fact can only be ascertained by perforating the cavity and on an examination of its interior. Some say that foreign bodies here cause an itching, crawling or tickling sensation in the substance of the cheek. This is an uncertain diagnosis, for such sensations are not unfrequent in the region of this cavity. That they sometimes cause great pain, is proven by the history of the case related by Mr. Heysham, the particulars of which we have just noticed. This, like the other signs, is not peculiar to occurrences of this sort alone. It is more or less common to all the morbid affections of this cavity.

Treatment.—The proper remedial indication for foreign bodies in the antrum, is their removal. When insects are discovered here, injections of oil and tepid water are recommended. This constitutes all the treatment necessary to be employed in cases of this kind, except an artificial opening be required.

MAX'IMUM. The greatest amount or quantity; opposed to minimum.

MAY-APPLE. Podophyllum peltatum.

May-Weed. Anthemis cotula.

MAYNARD, E. Essay on Salivary Calculus, by. Read before the American Society of Dental Surgeons, at their third annual meeting, in Boston, 1842.—Irregularity of the Superior Denture, by; published in the fourth volume of the American Journal of Dental Science. Dr. Maynard was, also, one of the editors of the third and fourth volumes of the above named periodical.

McCABE, JAMES D. Effects of Constitutional Disease upon the Health and Structure of the Teeth, by; published in the American Journal of Dental Science.—Dr. McCabe is also, author of a Paper on Dental Education, published in the fourth volume of the above named periodical.

McCABE, JOHN C. Thoughts on the Abuse of Dental Practice, by; published in volume first of American Journal of Dental Science.

McCALLA, JOHN. A Thesis on Tic Douloureux, or Neuralgia Faciei, by; published in the American Journal of Dental Science, volume eight.

MEAD. A fermented liquor made from honey and water.

MEADOW CROWFOOT. Ranunculus acris.

Meadow Saffron. Colchicum autumnale.

Meadow-Sweet. Spiræa ulmaria.

MEASLES. Rubeola.

MEA'TUS. A passage or canal.

Meatus Auditorius Externus.—The external auditory passage.

Meatus Auditorius Internus.—The internal auditory passage.

Meatus Cæcus. The eustachian tube.

Meatus Narium. Nasal fossæ.

Meatus Urinarius. The urethra.

MECHAN'ICAL. *Mechanicus;*—from μηχανη, a machine. Pertaining to a machine; the art of constructing machines. Also, acting by physical pow-

er. It relates, too, to the sensible properties of masses of matter. In *Medicine*, remedies which act by irritation. Also, physicians who refer every function of the body, whether healthy or morbid, to a certain condition of the mechanical properties of the blood and other parts of the body. For the application of the term in *Dental Surgery*, see Mechanical Dentistry.

MECHANICAL DENTISTRY. The art of constructing and applying artificial teeth, artificial palates, obturators and appliances for the correction of irregularity in the arrangement of the natural teeth. See Impression of the Mouth in Wax; Metallic Base for Artificial Teeth; Model, Plaster and Metallic, of the Alveolar Border; Model, Antagonizing, for Artificial Teeth; Mounting Mineral Teeth upon a Metallic Base; Spiral Springs, &c.

However remote may have been the origin of mechanical dentistry, it was not until recently that it arrived to a very high degree of perfection, and Desirabode, with a great deal of pride, claims that it has made greater progress in France than any other country. It cannot be denied that France was the birth place and early nursery of this branch of dentistry, and the French are certainly entitled to great credit for the ingenuity and zeal they have displayed in its cultivation, but it is due to truth and justice to say, that its progress, since 1835, in the United States and we may add, Great Britain, has been as rapid as in that country. In fact, there is no country at present, where finer or more ingenious specimens of mechanical dentistry are produced, than in the United States, or where this description of mechanical appliances are made to subserve a more efficient or valuable purpose.

MECHAN'ICS. The science which treats of the laws of the motion of material bodies.

MECHANICS, ANIMAL. That part of physiology which treats of the laws which govern the movements of the animal body.

MECH'ANISM. The structure of the body, the assemblage of the parts of a machine.

MECKEL'S GANGLION. The spheno-palatine ganglion.

MECO'NIUM. From *μηκων*, the poppy. The inspissated juice of the papaver somniferum. Also, the excrement in the large intestines of the fetus.

ME'DIAN. *Medianus;* from *medium*, the middle. That which occupies the middle.

MEDIAN LINE. The imaginary vertical line supposed to divide a body into two equal parts.

MEDIAN NERVE. A nerve occupying an intermediate position between the radial and ulnar nerves, and passing down the middle of the fore-arm to the palm of the hand.

MEDIAN VEINS. Three of the veins of the fore-arm are so called, the *median cephalic*, the *median basilic*, and the *common median*.

MEDIASTI'NUM. The membranous partition which divides the thorax into two lateral halves.

MEDIASTINUM CEREBRI. The falx cerebri.

ME'DIATE. *Mediatus.* Middle; between two extremes.

MED'ICAL. *Medicus.* Relating to the science, or professors, of medicine.

MEDICAL JURISPRUDENCE. Legal medicine.

MED'ICAMENT. *Medicamentum;* from *medicare*, to heal. A medicine.

MEDICAS'TER. An empiric; a quack.

MED'ICATED. Having medicine in it; treated with medicine.

MEDICI'NA. The healing art. A science which has for its object the cure of disease and the preservation of health.

MEDICINA CONSERVATIVA. Hygiene.

MEDICINA DIÆTET'ICA. Dietetic me-

dicine. That part of medicine which relates to diet.

Medicina Gymnas'tica. That part of medicine which relates to exercise.

Medicina Hermet'ica. The employment of chemical remedies in the treatment of disease.

Medicina Prophylac'tica. Hygiene. Preventive medicine.

MEDIC'INAL. *Medicinalis;* from *medicina*, medicine. Having remedial powers: adapted to the mitigation or cure of disease.

Medicinal Days. Critical days.

Medicinal Hours. The hours when it is supposed medicine may be given with greatest advantage. Those most commonly fixed upon are in the morning, about an hour before dinner, four hours after, and before going to bed. But, as a general rule, the times should be governed by the symptoms.

MEDICINE. *Medicina.* The healing art. Also, a medicine.

MEDICO-CHIRURGICAL. Belonging or relating both to medicine and surgery.

MEDICUS. A physician.

ME'DIUS. Middle; median.

ME'DULLA. Marrow. Also, the pith of vegetables. The white substance of the brain, too, is so called.

Medulla Cassiæ. The pulp of cassia fistula.

Medulla Oblongata. The upper enlarged portion of the spinal cord, resting upon the basilary process of the occipital bone.

Medulla Spinalis. The spinal cord.

MED'ULLARY. *Medullaris;* from *medulla*, marrow. Relating to, or resembling, marrow.

Medullary Arteries. The arteries which go to the marrow of bones.

Medullary Membrane. The periosteal membrane which lines the cavities of hollow bones.

Medullary Sarcoma. Fungus hæmatodes.

Medullary Substance. The white part of the brain. Also, the internal substance of the kidney.

MEDU'SÆ. A term applied in *Zoology*, to a genus of soft radiated animals or acalephes, called *sea-nettles.*

ME'GRIM. Hemicrania.

MEIBO'MIUS' GLANDS. The small sebaceous follicles situated between the conjunctive membrane of the eye and the cartilage of the eyelid.

MEKEL. Author of a Paper, entitled, Whether those Diseases which follow the Transplantation of Teeth, are always of a Venereal Character; published, Hal., 1792.

MEL. Honey.

Mel Acetatum. Oxymel.

Mel Ægyptiacum. Oxymel of subacetate of copper.

Mel Boracis. Honey of borax.

Mel Despuma'tum. Clarified honey.

Mel Præpara'tum. Prepared honey.

Mel Rosæ. Honey of roses.

Mel Scillæ Compositum. Compound honey of squill.

MELA. From μαω, to search. A probe.

MELÆ'NA. From μελας, black. Vomiting of concrete blood of a blackish-red color.

Melæna Fungosa. Fungus hæmatodes.

MELALEU'CA. The name of a genus of plants.

Melaleuca Cajeputi. The name of a plant which affords the cajeput oil.

MEL'ANAGOGUE. From μελας, black, and αγω, I expel. A medicine supposed by the ancients to possess the power of purging off black bile.

MELANCHO'LIA. Melancholy.

MEL'ANCHOLY. *Melancholia;*—from μελας, black, and χολη, bile. A mental affection characterized by depression of spirits, and occupation of the mind on one train of thoughts. It was supposed by the ancients to be caused by *black bile*, and hence the appellation.

MELANO'SIS. From μελανοω, to become black. An organic affection, in which the structure of the parts assume a

black color, and firm consistence, exhibiting an appearance not unlike the bronchial glands, when, by a softening process, they are converted into deep ulcers. The lungs, cellular and adipose textures are most subject to this species of degeneration. It is called by Dupuytren, *black cancer*, and by Carswell, *melanoma*.

MELANOT'IC. Of, or belonging to, melanosis.

MELAS'MA. From μελας, black. A black spot usually occurring upon the tibia of old persons, which soon degenerates in an ulcer.

MELAS'SES. Molasses.

MELATROPH'IA. From μελος, a limb, and ατροφια, wasting. Wasting of the limbs.

MELEGE'TA. Grains of paradise.

MELI. Honey.

MELIA AZED'ARAC. Pride of China; an ornamental tree much cultivated in the southern states.

MELI'CERIS. From μελι, honey, and κερας, wax. An excisted tumor, the contents of which resemble wax.

MELIGEI'ON. From μελι, honey. A fetid humor, of the consistence of honey, discharged from an ulcer, attended with caries of the bone.

MELILO'TUS. The officinal melilot.

MELIS'SA. The name of a genus of plants.

Melissa Calamin'tha. The common calaminth.

Melissa Citrina. The officinal melissa.

Melissa Grandiflo'ra. Mountain calamint.

Melissa Nepeta. Field calamint.

MELIT'TIS MELISSOPHYL'LUM. Mountain balm.

MELLA'GO. From *mel*, honey. Any medicine of the consistence of honey.

MELO. Melon. Also, staphyloma.

MEL'OE NIGER. The cantharis atrata, or blistering fly of the United States.

Meloe Vesicatorius. Cantharis.

MELON. Musk-melon.

Melon, Water. The water-melon plant.

MELON'GENA. The mad-apple plant, or egg fruit.

MELOPLAS'TIC. *Meloplasticus;* from μηλον, the cheek, and πλασσω, I form. The operation for the restoration of any part of the cheek when lost by wounds or ulcers.

MELO'SIS. Μηλωσις; from μηλη, a probe. The exploration of a wound or ulcer with a probe.

MELO'TIS. A small probe.

MEMBRA'NA. See Membrane.

Membrana Adiposa. Adipose membrane.

Membrana Arachnoidea. Arachnoid membrane.

Membrana Cellulosa. Cellular membrane.

Membrana Hyaloidea. The delicate transparent membrane which encloses the vitreous humor of the eye.

Membrana Jacobi. An extremely thin and delicate membrane which invests the external surface of the retina.

Membrana Pigmenti. The internal layer of the choroid membrane.

Membrana Pituitaria. The membrane which lines the nasal fossæ

Membrana Pupillaris. A delicate vascular membrane which covers the pupil of the eye until about the seventh month.

Membrana Reticularis. Cellular membrane.

Membrana Sacciformis. A synovial membrane between the lateral articulation of the ulna with the radius.

Membrana Schneideria'na. The pituitary membrane of the nose.

Membrana Tympani. The thin, semi-transparent membrane which covers the cavity of the drum of the ear.

MEM'BRANE. *Membrana.* In *Anatomy*, a thin expanded substance, of a cellular texture, intended to envelop, or separate, or form other organs, and to exhale, absorb, or secrete certain fluids.

MEM'BRANIFORM. *Membrani-*

formis. Applied to laminated parts which resemble a membrane.

MEMBRANOL'OGY. *Membranologia;* from *membrana,* a membrane, and λογος, a discourse. A treatise on membranes.

MEMBRANO'SUS. The tensor vaginæ femoris.

MEM'BRANOUS. Having the nature of a membrane, or formed of membranes.

MEMBRANU'LA. A small thin membrane.

MEM'BRUM. A member; a limb.

MEMBRUM VIRILE. The penis.

MENAGOGUE. Emmenagogue.

MENINGE'AL. *Meningeus.* Relating to the meninges, or dura mater.

MENINGEAL ARTERIES. The arteries distributed to the external surface of the dura mater. They are distinguished into *middle, anterior,* and *posterior.*

MENIN'GES. From μηνιγξ, a membrane. The membranes which envelop the brain.

MENINGI'TIS. Inflammation of the meninges.

MENINGO-CEPHALI'TIS. From μηνιγξ, a membrane, κεφαλη, head, and *itis,* a suffix, signifying inflammation. Inflammation of the brain and its membranes.

MENINGOPH'YLAX. An instrument for depressing the dura mater, and shielding it from injury while the bone is cut or rasped after the operation of trepanning.

MENINGO'SIS. The union of bones by means of membrane.

ME'NINX. A term given by the ancients to all membranes, but now restricted to those of the brain.

MENISPER'MUM. The name of a genus of plants.

MENISPERMUM CANADEN'SE. The name of a climbing plant found in various parts of the United States.

MENISPERMUM COC'CULUS. The name of the plant bearing the *cocculus indicus,* or Indian berries.

MENISPERMUM PALMATUM. The name of the plant which produces the calumba root.

MENISPERMUM TUBERCULA'TUM.—The name of a Chinese plant. The *cocculus crispus.*

MENOLIP'SIS. Cessation of the menses.

MENORRHA'GIA. From μην, a mouth, and ρηγνυμι, I flow fiercely. Profuse menstruation; immoderate flow of the menses, or blood from the uterus.

MENOS'TASIS. From μην, mouth, and στασις, stagnation. Suppression of the menses.

MENS. The mind.

MENSES. From *mensis,* a mouth. The sanguineous discharge at the periods of menstruation.

MENSES, IMMODERATE FLOW OF THE. Menorrhagia.

MENSES, INTERRUPTION OF. Amenorrhœa.

MENSTRUAL FLUX. The menses.

MENSTRUA'TION. *Menstruatio.* The flowing of the menses, which, from the age of puberty, in healthy women, not pregnant, and who do not suckle, occurs monthly.

MENSTRUATION, PAINFUL. Dysmenorrhœa.

MENSTRUATION, PROFUSE. Menorrhagia.

MENSTRUATION, VICA'RIOUS. The occurrence of hemorrhage from other parts, as from the nose, gums, lungs, and other organs, at the regular menstrual periods, in consequence of the suppression of the menses.

MEN'STRUUM. A solvent. Any substance which has the property of dissolving one or more others.

MENSURA'TION. *Mensuratio;* from *mensura,* measure. Act of measuring. In *Disease,* this means of exploring the chest is sometimes adopted for the purpose of ascertaining its exact dimensions.

MEN'TAGRA. From *mentum,* the chin, and αγρα, a prey. An eruption about the chin.

MENTAGRA INFANTUM. Porrigo lupinosa.

MENTAL. From *mens*, mind. Belonging, or relating, to the mind. In *Anatomy*, it relates to the chin, (from *mentum*, the chin.)

MENTAL AR'TERY. A branch given off by the dental artery, which issues from the anterior mental foramen, and is distributed upon the lower lip.

MENTAL FORA'MEN. The outer orifice of the inferior dental canal, situated on the outer surface of the inferior maxilla beneath the cuspid tooth.

MENTAL NERVE. A branch of the inferior dental, which escapes from the anterior mental foramen to be distributed upon the lower lip.

MEN'THA. The name of a genus of plants.

MENTHA AQUAT'ICA. *Mentha rotundifolia palustris.* Water-mint.

MENTHA CERVI'NA. Hart's pennyroyal.

MENTHA CRISPA. Curled-leaved mint.

MENTHA PIPERI'TA. Peppermint.

MENTHA PULE'GIUM. Pennyroyal.

MENTHA VIRIDIS. *Mentha vulgaris.* Spearmint. Mint.

MENTO-LA'BIAL. *Mento-labialis.* Belonging to the chin and lip. Also, the depressor labii inferioris.

MENTULA. The penis, or clitoris.

MEN'TULAGRA. Convulsive erection of the penis.

MENTUM. The chin.

MENYAN'THES TRIFOLIA'TA. The buck bean.

MEPHIT'IC. *Mephiticus.* Applied to noxious exhalations, and to things possessed of poisonous properties.

MEPHITIC ACID. Carbonic acid.

MEPHITIC AIR. Nitrogen.

MEPH'ITISM. A poisonous exhalation; all gases unfit for respiration.

MERCU'RIAL. *Mercurialis.* Relating to, or containing, mercury. Also, active; sprightly; full of vigor.

MERCURIA'LIS. *Mercurialis annua.* French mercury. The name of a genus of plants.

MERCURIALIS PEREN'NIS. *Mercurialis sylvestris. Mercurialis montana sylvestris.* Dog's mercury; a poisonous plant.

MERCU'RIUS. Mercury.

MERCURIUS ACETATUS. Hydrargyrus acetatus.

MERCURIUS ALKALIZATUS. Hydrargyrum cum creta.

MERCURIUS CALCINATUS. Hydrargyri oxydum rubrum.

MERCURIUS CHEMICORUM. Quicksilver.

MERCURIUS CINEREUS. Black oxyd of mercury.

MERCURIUS CINNABARINUS. Red sulphuret of mercury.

MERCURIUS CORROSIVUS. Corrosive sublimate.

MERCURIUS CORROSIVUS RUBER.—Red precipitate.

MERCURIUS COSMETICUS. Ammoniated mercury. White precipitate.

MERCURIUS DULCIS SUBLIMATUS.—Calomel.

MERCURIUS EMETICUS FLAVUS. Yellow sulphate of mercury. Turpeth mineral.

MERCURY. *Hydrargyrum. Hydrargyrus. Mercurius.* Quicksilver. The compounds of this metal form an extensive and important class of medicines. For the names of its various preparations, see Hydrargyrum, Pilula Hydrargyri and Unguentum.

MERCURY, DOG'S. Mercurialis perennis.

MERCURY, ENGLISH. Chenopodium bonus henricus.

MERCURY, FRENCH. Mercurialis annua.

MERIDRO'SIS. From μερος, a part, and ιδρωσις, sweating. A partial perspiration.

MEROBALNE'UM. From μερος, a part, and βαλανειον, a bath. A partial bath.

MEROCE'LE. From μηρος the thigh, and κηλη, a tumor. Femoral or crural hernia.

ME'ROS. The thigh; the femur.

MERRYMAN, G. Author of a Paper on the Osseous Union of the Teeth, published in the first volume of American Journal of Dental Science.

ME'RUS. Genuine; pure.

MESARAIC. Mesenteric.

MESEMBRYANTHEMUM CRYSTAL'LINUM. The ice plant.

MES'ENTERIC. *Mesentericus.*—Belonging, or relating, to the mesentery.

Mesenteric Arteries. The second and fifth branches of the aorta, are called the *superior* and *inferior* mesenteric arteries.

Mesenteric Glands. The lymphatic glands of the mesentery.

Mesenteric Plexuses. These plexuses, distinguished into *superior*, *middle* and *inferior*, are formed by the branches of the great intercostal nerves.

Mesenteric Veins. These are distinguished into *superior* and *inferior*, and both terminate in the splenic.

MESENTERI'TIS. Inflammation of the mesentery.

MES'ENTERY. *Mesenterium;* from μεσος, the middle and εντερον, intestine. A duplicature of the peritoneum which maintains the intestines in their respective situations.

MESERA'IC. Mesenteric.

MESMERISM. Magnetism, animal.

MESO-. Μεσος, the middle. Used as a prefix to certain words.

MESOCÆ'CUM. A duplicature of the peritoneum, at the posterior part of the cæcum.

MESOCEPH'ALON. The pons varolii.

MESOCO'LON. From μεσος, the middle, and κωλον, the colon. A duplicature of the peritoneum to which the colon is attached. It is designated according to its situation.

MESOCRA'NIUM. The top of the head, or vertex.

MESODME. The mediastinum.

MESODMI'TIS. Inflammation of the mediastinum.

MESOGAS'TRIUM. The umbilical region of the abdomen.

MESO-GLOS'SUS. The genio-glossus muscle.

MESOLOBE. The corpus callosum.

MESOME'RIA. The parts situated between the thighs.

MESOMPHA'LIUM. The middle of the navel.

MESOPH'RION. The space above the nose, between the eyebrows.

MESOREC'TUM. The transverse fold of the peritoneum, which connects the rectum with the sacrum.

MESOTH'ENAR. The abductor, and deep seated portion of the flexor brevis of the thumb.

MESO'THORAX. From μεσος, middle, and *thorax*, the chest. The intermediate of the three segments which compose the thorax in insects.

MESOT'ICA. Diseases affecting the intermediate or connecting substance of organs without derangement of the general health.

MES'PILUS GERMAN'ICA. The medlar tree.

Mespilus Oxyacan'tha. White hawthorn.

META-. A common prefix, from μετα, after; with, signifying change.

METAB'ASIS. From μεταβαινω, I digress. A change of medicine, or treatment.

METABOLEL'OGY. *Metabolelogia*, from μεταβολη, change, and λογος, a discourse. A treatise on the changes which occur in the course of a disease.

METACAR'PAL. Belonging, or relating, to the metacarpus.

Metacarpal Ar'tery. A branch of the radial artery which descends obliquely upon the back of the hand.

Metacarpal Articulations. The articulations of the last four metacarpal bones, at their upper extremity.

Metacarpal Bones. See Metacarpus.

Metacarpal Ligaments. The ligaments which connect the metacarpal bones.

METACARP'US. From μετα, after, and καρπος, the wrist. The bones of that

part of the hand situated between the wrist and fingers.

METACORE'SIS. Metastasis.

METALLUR'GIA. From μεταλλον, a metal, and εργον, work. The art of treating metals, or separating them from their ores.

METAL. *Metallum.* Μεταλλον, a metal. A numerous class of simple combustible bodies, distinguished by their peculiar lustre, considerable specific gravity, almost total opacity, insolubility in water, and as being conductors of electricity and heat.

The existence of forty-two metals are admitted by chemists. The following table contains their names, specific gravity, melting points, and symbolic abbreviations.

Names of Metals.	Specific Gravity.	Melting Points. Fahr.	Symbolic Abbreviations.
1. Gold	19.25	2016°	Au.
2. Silver	10.47	1873	Ag.
3. Iron	7.78	2800	Fe.
4. Copper	8.89	1996	Cu.
5. Mercury	13.56	39	Hg.
6 Lead	11.35	612	Pb.
7. Tin	7.29	442	Sn.
8. Antimony	6.70	....	Sb.
9. Bismuth	9.80	497	Bi.
10. Zinc	7.00	773	Zn.
11. Arsenic	5 80	....	As.
12. Cobalt	8 53	2810	Co.
13. Platinum	20.98	oh. bp.*	Pt.
14. Nickel	8.27	2810	Ni.
15. Manganese	6.85	2800	Mn.
16. Tungsten	17.60	....	W.
17. Tellurium	6.11	620	Te.
18. Molybdenum	7.40	oh. bp.	Mo.
19. Uranium	9.00	oh. bp.	U.
20. Titanium	3.30	oh. bp.	Ti.
21. Chromium	....	oh. bp.	Cr.
22. Columbium	....	oh. bp.	Ta.
23. Palladium	11.50	.....	Pd.
24. Rhodium	....	oh. bp.	R.
25. Iridium	....	oh. bp.	Ir.
26. Osmium	....	oh. bp.	Os.
27. Cerium	...	.....	Ce.
28. Potassium	0.86	136	K.
29. Sodium	0.97	190	Na.
30. Barium	....	....	Ba.
31. Strontium	....	....	Sr.
32. Calcium	....	....	Ca.
33. Cadmium	8.60	442	Cd.
34. Lithium	....	....	L.
35. Silicium	....	....	Si.
36. Zirconium	....	....	Zr.
37. Aluminium	....	....	Al.
38. Glucinium	....	....	G.
39. Yttrium	....	....	Y.
40. Thorium	....	....	Th.
41. Magnesium	....	....	Mg.
42. Vanadium	....	....	V.

*Oxyhydrogen blow-pipe.

METAL'LIC. Of the nature of metal.

Metallic Base for Artificial Teeth. A metallic plate adapted to such portion of the alveolar arch as is deprived of natural teeth, and is to be supplied with an artificial substitute. Gold is the most suitable metal for this purpose, and the one most frequently employed by American dentists, but platina is occasionally used, and so far as it regards its indestructibility, or power of resisting the action of the buccal fluids, would answer as well as gold, but the heat required to fuse it, is greater than can be obtained by the means employed for melting gold, silver, and other metals; consequently, if it were used for purposes of this sort, it would be at a great sacrifice, as the scraps and filings which would be removed in working it into the proper forms, would be of little value, or at any rate, they could not readily be re-converted into plate. It would not, therefore, be a matter of much economy to substitute the use of this metal for that of gold, and so much more generally is the value of the latter known, than that of the former, that there are few who would not decidedly prefer it.

The manner of preparing a metallic base, is as follows: The exact size of the plate is generally ascertained by first adapting a thin plate of lead to the model, and marking the dimensions designed for the base to have on it; the pattern is then cut and placed upon the gold plate, if this be the metal designed to be employed, and its shape marked upon it. With a pair of strong shears or snips,

the plate is then cut out to the size and shape of the pattern as marked upon it. It is now annealed, and partially adjusted to the model with a pair of pliers, or forceps made expressly for the purpose of bending plate, and a hammer, it is then again annealed and swaged between a metallic model and counter-model. This done, it is filed to the exact size required, and, if the piece is to be held in the mouth with clasps, accurately fitted to the teeth to which they are to be applied. It is sometimes necessary to anneal and swage the plate several times in order to secure a perfect adaptation to the model.

When block-tin or lead models or counter-models are used as swages for the plate, any portion of these metals which may adhere to it, should be removed before annealing, as the fusion of such portions upon its surface, by this process, will render the gold brittle, and, in some degree, destroy its ductility.

After fitting it to the model, it should be tried in the mouth for the purpose of ascertaining if the impression from which the model was obtained is correct. It sometimes happens that this is imperfect, and, in which case, a new one will have to be taken, and the whole process of procuring plaster and metallic models and a counter-model, again gone through with, and hence the propriety of the precaution of trying it in the mouth before the clasps and teeth are attached to it. To be worn with comfort, and at the same time to subserve any valuable purpose, it is important that the plate should fit accurately to all the inequalities of the parts to which it is to be applied. When an unbroken series of several teeth are to be supplied, it seldom happens that much difficulty is experienced in fitting the plate, but when the loss of six or eight teeth, from different parts of the dental arch, are to be replaced, with substitutes attached to a single plate, a perfect adaptation to the various inequalities of all the parts, cannot always be easily procured. But until it is made to fit accurately, neither the clasps nor the teeth should be attached to it.

With regard to the width of the plate, and the peculiar form and shape that should be given to it in different cases, there exists some difference of opinion. Some prefer a very wide plate, others a narrow one. When it is to be retained in the mouth by means of clasps or spiral springs, it should be from three-fourths of an inch to an inch in width; a suction or atmospheric pressure plate requires to be considerably wider. A base for a substitute for all the teeth of the lower jaw, should extend as far back as possible, and for the upper jaw, far enough back to cover the tuberosities of the alveolar border. When the substitute is to be retained in the mouth by means of clasps attached to the metallic base and fitted to one or more of the remaining natural teeth, it is important that they should be so constructed as to fit with the most perfect accuracy, so that when applied, no undue force shall be exerted upon the organs around which they are placed. In uniting them to the base, the following is the method of procedure usually adopted.

Having swaged and fitted the plate, it should be transferred from the metallic to the plaster model. The clasps should then be adapted to the teeth to which they are to be applied, as represented on the plaster model, to one on each side, and here it may be proper to observe, that the plate used for this purpose should, as a general rule, be from one-third to one-half thicker than that employed for the base, and as wide as the length of the crowns will permit. This precaution is necessary to secure to the piece the greatest possible amount of stability, and to prevent the clasps from acting as retractors, or exercising an undue force upon the teeth to which they are applied. If the transfer teeth on the plaster model are imperfect or do not represent the exact shape and

size of the teeth in the mouth, the clasps should be fitted to the latter and there united to the plate by means of a little cement composed of two parts beeswax, and one of resin, or common yellow wax, previously softened in warm water or by a fire, and then carefully removed, with the plate, from the mouth.

But supposing the teeth on the model to be an exact representation of those in the mouth, the clasps, when accurately fitted to them and the plate, should be united to the latter in the manner as above described. The whole should then be carefully removed from the model, and placed, with the convex surface of the plate downwards, upon a piece of paper. This done, a paste or batter of plaster of paris, should be poured on the upper side of the plate and clasps to the thickness of half an inch. When this becomes hard, the piece may be taken from the paper, turned over, placed on a piece of charcoal, and the wax softened and removed.

When the teeth deviate from a vertical position, and it becomes necessary to fit the clasps to the teeth in the mouth, only one can be applied at a time, and the greatest care will be necessary to prevent moving or altering its position in removing the piece from the mouth.

The clasps being properly secured to the plate with plaster of paris, and the wax removed, a mixture of borax and water should be applied with a camel's-hair pencil to the line of union between the two, and several small pieces of solder. This done, they should be soldered together by means of a blow-pipe and spirit or oil lamp, or by means of a self-acting blow-pipe and lamp. See Soldering, and Parmly's Self-Acting Blow-Pipe.

The clasps being attached to the base, the teeth may be selected, arranged, fitted and united to it, and for the manner of doing which, see Mounting Porcelain Teeth, upon a metallic base.

In supplying the loss of the natural teeth with an artificial substitute, the ingenuity of the dentist is often taxed to its greatest extent, and not only with regard to the means employed for its retention in the mouth, but also with regard to the shape and construction of the base used for a support and attachment for the teeth. It may be well, therefore, to give a brief description of the form of a base for artificial teeth as employed in different cases.

In supplying the loss of an upper central incisor, the usual practice is to extend the plate back on the inside of the dental arch, and attach each branch to a first or second bicuspis, or a molaris, by means of a clasp. But it sometimes happens that a suitable tooth for this purpose can only be found on one side of the mouth, and in this case one of the branches of the plate may be dispensed with, and in fact, it may, in almost all cases, where a suitable tooth can be had to serve as an attachment for the clasp. But when only one clasp is employed, the tooth to which it is applied should have a tolerably long crown, else a sufficient amount of stability cannot be obtained for the piece.

In the construction of a base for two or more incisores, or for the whole four, or a greater number of teeth, each extremity should be provided with a clasp, if a tooth can be procured on each side to which a clasp can be applied. But in the event of the loss of all the teeth on one side of the mouth, and there be one or more securely articulated molares, on the other, the base may be provided with one or two clasps on the side on which the remaining teeth are situated; but in this case, they should be so adjusted, that when the piece is applied, as to hold the opposite side of the base securely against the alveolar border. When, however, there are only one or two teeth remaining on one side of the jaw, the better practice is to remove them, and furnish a substitute for the entire arch upon the atmospheric pressure or suction principle, or to cut

a sufficiently large hole through the base to admit the remaining teeth.

In the construction of a base for two or three teeth on one side of the mouth, say, for example, the two bicuspides, the posterior extremity only need be provided with a clasp. For a like number on each side of the mouth, additional stability may be given to the piece by extending the plate across behind the front teeth, or by connecting the two plates by means of a third, passing across from side to side, under the palatine arch, a method recommended by Dr. Roper, of Philadelphia.

With a view of avoiding in most cases, the use of clasps, and preventing the hurtful effects which so often result from their employment, Dr. G. E. Hays, of Buffalo, N. Y., recommends perforating the base in such a way as to permit one or more remaining teeth to pass through it. The author has adopted this plan in two cases with decided advantage. For a full description of his method of procedure, see American Journal of Dental Science, vol. 8, No. 4.

It often happens that the loss of the teeth results from disease in the gums and alveolar processes, and when this happens, the latter are so much wasted and destroyed, that the ridge in the lower jaw is scarcely perceptible and becomes covered with loose folds of mucous membrane. In cases of this description, the application of a dental substitute often becomes exceedingly difficult. The pressure of the apparatus is apt to cause irritation. But this difficulty may, in most cases, be obviated by using a thick base, fitted accurately to the parts and extended back upon the coronoid processes. It should, also, when practicable, be applied without springs.

The upper plate should be about one inch in width, and the lower as wide as the shape of the ridge will admit of its being made. The lower plate should be fully twice as thick as the upper, and made from gold at least twenty-two carat fine. Twenty carat gold will do for the upper plate.

From the thickness of the plate employed for a metallic base, and the manner of alloying and refining gold, and making it into plate, see articles upon these subjects.

Metallic Base, Cleaveland's.—With a view of increasing the adhesion of a suction or atmospheric pressure base, a variety of plans have been proposed, all consisting, for the most part, in so constructing the base that a space shall be left between it and the palatine arch or alveolar border, from which, in its application, the air may be exhausted; thus leaving a vacuum, which, in accordance with a well known philosophical principle, would secure the desired end. Among those who have attempted to avail themselves of this principle, the author was, perhaps, the first to suggest it, which he did, as early as 1835, but the air chamber which he designed being regarded as somewhat objectionable, he did not use it. Within the last four or five years the principle has been applied by a number of dentists, but the best method of constructing a metallic base with an air chamber, which has come to the knowledge of the author, is the one contrived about 1845 by Dr. J. A. Cleaveland, of Charleston, S. C. The following is the method of procedure in its construction.

A metallic model and counter-model having been obtained in the usual manner, a plate is struck up, covering the palatine arch and so much of the alveolar border as is to be supplied with artificial teeth. This is then put in the mouth, for the purpose of ascertaining whether it be accurately adapted to all the parts with which it is intended to be placed in contact, and if not, a new impression must be taken, new models obtained, and the plate re-swaged, when it is again placed in the mouth. The plate being accurately adapted, a piece of half round gold wire, (if the plate be

of this metal,) as large as a medium sized knitting needle, is soldered to the lower side of the plate, describing a circle behind the alveolar ridge, the size of a twenty-five cent piece. The plate within this circle is next removed; the plate is next placed on the model, and a piece of softened yellow or white wax, about the twelfth part of an inch in thickness, and of a circumference one-fourth larger than the hole in the plate, is applied, so as completely to close the opening and extend a short distance beyond the wire on every side. An impression in soft wax of the model and the plate as thus prepared, is next taken, from which a new model and counter-model is obtained, and a thin plate of gold, large enough to cover the wax on the first plate, swaged up. The wax is then removed and the two plates soldered together, when, if it be applied to the mouth, and the air exhausted, it will be found to adhere with much greater tenacity than a simple plate. The base being thus prepared, the teeth may be mounted in the manner as described in another article. See Mounting Porcelain Teeth upon metallic base.

METALLIC TINKLING. *Metallic voice.* A peculiar noise heard by the stetheoscope, when there exists in the chest a preternatural cavity containing air, or when there is air in the cavity of the pleura. It is said to resemble that caused by striking glass, or a metallic or porcelain cup.

METAME'RIC. Isomeric.

METAMORPHOP'SIA. From μεταμορφοω, I transform, and ωψ, the eye. A species of depraved vision in which imaginary objects appear to be seen.

METAMOR'PHOSIS. From μετα, and μορφη, form. Transformation. In *Physiology*, the change through which any texture or organ of the body passes in the progress of its development.

METAPTO'SIS. From μεταπιπτω, I digress. The conversion of one disease into another.

METAS'TASIS. From μεθιστημι, I change place. A change in the seat of a disease.

METATAR'SAL. *Metatarsalis.* Belonging, or relating, to the metatarsus.

METATARSAL AR'TERY. An artery which forms an arch across the base of the metatarsal bones, supplying the outer side of the foot, and giving off three interosseal branches.

METATARSAL ARTICULA'TIONS. The articulation of the metatarsal bones with each other.

METATARSAL BONES. See Metatarsus.

METATARSO-PHALAN'GIAN. Pertaining to the metatarsus and phalanges.

METATARSO-PHALANGIAN ARTICULATIONS. The articulation of the metatarsal bones with the corresponding phalanges of the toes.

METATAR'SUS. From μετα, after, and ταρσος, tarsus. That portion of the foot which is situated between the tarsus and toes, consisting of five small cylindrical bones.

METATH'ESIS. From μετατιθημι, I change place. Transposition. Also, the act of removing the consequence, or cause of a disease, from one place to another, where its presence will be less hurtful, as depressing a cataract, &c.

METATHO'RAX. From μετα, after, and *thorax*, the chest. The hindmost of the three segments which compose the thorax in insects.

METEOR'ISM. *Meteorismus;* from μετεωριζω, to elevate. Distention of the abdomen with gaseous fluid.

METEOROL'OGY, *Meteorologia;* from μετεωρος, aerial, and λογος, a discourse. That department of science which treats of atmospheric phenomena, as the formation of dew, the progress of winds, &c.

METH'ODISTS. An ancient sect of physicians who endeavored to reduce the treatment of disease to exact rules, supposing that all morbid affections of the body was the result of con-

striction or relaxation of the animal fibre.

METHOMA'NIA. From μεθη, drunkenness, and μανια, mania. An irresistible desire for intoxicating liquors.

METHYLE. A hypothetical radical of a numerous series of compounds, analogous to those of ethyle.

METOPANTRAL'GIA. From μετωπον, forehead, αντρον, a cavern, and αλγος, pain. Pain in the frontal sinus.

METOPANTRI'TIS. Inflammation of the frontal sinus.

METOPOS'COPY. *Metoposcopia;* from μετωπον, forehead, and σκοπειν, to view. The art of distinguishing the temperament of an individual by inspecting the forehead.

METRA. The uterus.

METRAL'GIA. From μητρα, the womb, and αλγος, pain. Pain in the uterus.

METRATRE'SIA. From μητρα, the womb, and ατρησια, imperforation. Morbid closure of the uterus.

METRE. A French measure equal to 39.33 English inches.

METRI'TIS. Inflammation of the uterus.

METROCARCINO'MA. From μητρα, the womb, and καρκινωμα, cancer. Cancer of the uterus.

METROCE'LE. Hernia vaginalis.

METROHÆ'MIA. From μητρα, the womb, and αιμα, blood. Sanguineous congestion of the uterus.

METROMAN'IA. Nymphomania.

METRO-PERITONI'TIS. Inflammation of the uterus and peritoneum.

METROPOL'YPUS. Polypus of the uterus.

METROPTO'SIS. Prolapsus uteri.

METRORRHA'GIA. Hemorrhage from the uterus.

MEYER. A Treatise on the Usual Diseases of the Teeth, by. Hanan, 1778.

MEZE'REON. Daphne mezereon.

MIALHE'S ASTRINGENT LOTION. The following is recommended by Mialhe for relaxation of the gums. ℞.—Alcohol at 33°, 1000 parts; true kino 100; rhatany root, 100; tr. of tolu, tr. of benzoin, of each, 2; oil of mint and of canella, of each, 2; and oil of anise, 1 part. Macerate the kino and rhatany in the alcohol for eight days; filter, and add the other articles. A teaspoonful diffused in three or four teaspoonfuls of tepid water should be used as a gargarism.

MIAS'MA. Μιασμα, a stain or polution; from μιαινω, I contaminate. In *Pathology*, the effluvia arising from sick persons, and from the decomposition of animal or vegetable substances.

MIASMAT'IC. Relating to, or produced by, miasmata.

MI'CROCOSM. *Microcosmus;* from μικρος, small, and κοσμος, world. A little world; applied to man as the epitome of every thing admirable in the world.

MICROCOUS'TIC. From μικρος, small, and ακουω, I hear. An instrument to augment the intensity of sound, and assist in hearing.

MICROGLOS'SIA. From μικρος, small, and γλωσσα, tongue. Congenital smallness of the tongue.

MICROG'RAPHY. From μικρος, small, and γραφω, to describe. A description of objects too small to be seen without the assistance of a microscope.

MICROL'OGY. *Micrologia;* from μικρος, small, and λογος, a discourse. In *Science*, a treatise on minute objects, as microscopical animals and plants.

MICROM'ETER. From μικρος, small, and μετρον, a measure. An instrument attached to a microscope or telescope for measuring small objects.

MI'CROSCOPE. From μικρος small, and σκοπεω, I view. An instrument for the examination of objects too minute to be seen with the naked eye. A microscope may be single or compound; it is single when an object can be viewed through it directly, whether it consists of one or more lens; and compound, when two or more lens are so arranged, that the enlarged image of the

object formed by one, is again magnified by others, and seen as if it were the object itself. The microscope has recently been much used in the examination of the minute structural arrangement of the various tissues of the body. It is to the aid of this instrument that we are indebted for the valuable and highly interesting researches of Retzius, Nasmyth, Owen and others, into the minute structure of the teeth.

MICROSPHYX'IA. From *μικρος*, small, and *σφυγμος*, pulse. Smallness, or weakness of pulse.

MICTURIT'ION. *Micturitio;* from *micturio*, I make water. The act of making water.

MIDRIFF. The diaphragm.

MIEL, E. M. Pivots of Artificial Teeth; Instruments to move them, by. Paris, 1810.—Manner in which the Teeth pass from the Sockets through the Gums, by. Paris, 1810.—Some Ideas on the Connection of the Growth of the Jaws connected with the Dentitions; Researches upon the Direction of Second Dentition, by. Paris, 1826.

MILFOIL. Yarrow.

MIL'IARIA. *Miliary fever;* from *milium*, millet. An exanthematous eruption, so called, because the vesicles resemble millet-seed.

MILIOLUM. Diminutive of *milium*, millet. A small tumor of the eyelids, in size, resembling a millet-seed.

MI'LIUM. Millet. Also, a hard, white tubercle, of the size of a millet-seed, seated immediately under the cuticle, and when pressed, discharging its contents, which, seemingly, is of a sebaceous nature.

Milium Solis. Gromwell.

MILK. Lac. A sweetish, opaque fluid, secreted by the mammary glands of the females of the mammalia, for the nourishment of their young.

Milk, Almond. Emulsio amygdalæ.

Milk, Asses'. Lac asininum.

Milk, Cows'. Lac vaccinum.

Milk, Ewes'. Lac ovillum.

Milk, Goats'. Lac ovinum.

Milk, Human. Lac humanum.

Milk, Mares'. Lac equinum.

Milk-Blotch. Crusta lactea.

Milk-Fever. Febris lactea.

Milk-Sickness. Sick stomach. Puking fever. A disease quite common in the western and south-western states; it affects both man and cattle.

Milk, Snakes'. Euphorbia corollata.

Milk, Sugar of. Lactin.

Milk-Teeth. The teeth of first dentition.

Milk-Thistle. Carduus marianus.

Milk-Vetch. Astragalus excapus.

Milk-Weed. Asclepias syriaca.

Milk-Wort. Polygala vulgaris.

MILLEFO'LIUM. Achillea millefolium.

MILLET. Panicum miliaceum.

Millet-Seed Rash. Miliaria.

MILLIGRAM'ME. The thousandth part of a gramme, or 0.0154 troy grain.

MILLIME'TRE. The thousandth part of a metre, equal to about two-fifths of a line.

MILPHO'SIS. Baldness of the eyebrows.

MIMO'SA. The name of a genus of plants.

Mimosa Catechu. Acacia catechu.

Mimosa Nilotica. Acacia vera.

MIND. The intellectual, thinking, or intelligent faculty in man. The term is also used as signifying the phenomena resulting from the exercise of this faculty.

MIN'ERAL. *Mineralis.* Any inorganic body, found in the earth.

Mineral Kingdom. The division of nature which includes minerals.

Mineral Oil. Petroleum.

Mineral Pitch. Bitumen.

Mineral Solution. Arsenicalis liquor.

Mineral Teeth. See Porcelain Teeth.

Mineral Waters. Springs impregnated with substances foreign to the common composition of water, and which exercise a sensible action on the animal economy. Mineral waters are

divided into five classes, namely, *acidulous, alkaline, chalybeate, sulphureous,* and *saline.*

MINERA'LIS. Mineral.

MINERAL'OGY. *Mineralogia.*—That department of science which treats of minerals.

MINER'S ELBOW. An enlargement of the bursa over the olceranon, occurring in miners who are forced to lean much upon the elbow.

MIN'IMUM. A minim. The sixtieth part of a fluid drachm.

MIN'IUM. Red oxyd of lead.

MIRROR, DENTIST'S. Mouth-glass.

MISAN'THROPY. *Misanthropia;* from μισος, hatred, and ανθρωπος, man. Hatred of men and society.

MISCARRIAGE. Abortion.

MISERERE MEI. Ileac passion.

MIS'TLETOE. Viscum album.

MISTU'RA. A mixture. A fluid compound, containing several ingredients.

Mistura Acaciæ. Gum arabic mixture. Gum arabic emulsion.

Mistura Ammoniaci. Ammoniac mixture.

Mistura Amygdalæ. Almond mixture. Almond emulsion.

Mistura Asafœtida. Asafœtida mixture.

Mistura Camphoræ. Camphor water.

Mistura Camphoræ Cum Magnesiæ. Camphor with magnesia.

Mistura Cascarillæ Composita.—Compound mixture of cascarilla.

Mistura Creasoti. Creasote mixture.

Mistura Cretæ. Chalk mixture.

Mistura Ferri Aromatica. Aromatic mixture of iron.

Mistura Ferri Composita. Compound mixture of iron.

Mistura Gentianæ Composita.—Compound mixture of gentian.

Mistura Guaiaci. Guaiac mixture.

Mistura Hordei. Compound decoction of barley.

Mistura Moschi. Musk mixture.

Mistura Scammonii. Scammony mixture.

Mistura Spiritus Vini Gallici.—Brandy mixture.

MITCHELL, J. B. Author of a Paper on Irregular Dentition; published in the London Medical Gazette, and of notes to Dr. Koecker's Essay on the Diseases of the Jaws.

MITH'RIDATE. *Mithridatium.* A compound electuary, said to have been invented by Mithridates, king of Pontus and Bithynia.

MITRAL VALVE. *Valvula mitralis.* A valve at the opening of the left ventricle of the heart.

MIXTURE. Mistura.

MNEMON'ICS. From μναομω, I recollect. The art of assisting the memory by signs.

MOAN'ING. Audible expression of of pain or sorrow in low plaintive groans.

MOBILI'TY. *Mobilitas;* from *moveo,* to move. Capability of being moved; susceptibility of motion. In *Physiology,* great nervous susceptibility, complicated with a convulsive tendency.

MOCHLI'A. From μοχλος, a lever. The reduction of a luxated bone.

MOD'EL. *Modulus;* from *modus,* a measure, rule, size, or bigness. A pattern of something to be made; any thing of a particular form, shape, or construction. A mould; something intended to give shape to castings. Something made in imitation of real life. An artificial form.

Model, Plaster, of the Alveolar Border. In the adaptation of a metallic base, it is necessary to have a correct model or transfer of the parts to which it is to be applied, and from which a metallic model and counter-model can be procured. The manner of obtaining a plaster model, is as follows: An accurate impression, either in wax or plaster of paris, having been procured, it

should be first smeared with olive oil, and then filled with a batter or thin paste, made of the best calcined plaster and water. At first, it should be poured in while it is quite thin, until the indentations made by the teeth, if there be any in the jaw at the time the impression is taken, are filled; after which, the batter may be allowed to thicken a little, before the remainder of the impression is filled, and it should then be poured on until the plaster is raised an inch or an inch and a half above the impression.

After the plaster has sufficiently hardened, it should be trimmed, and after softening the wax in warm water or by a fire, it should be removed from it. The same impression can sometimes be used a second or third time, but lest the shape of it should be altered in the removal of the model, a duplicate impression should be taken. The plaster model should be shaped with a knife, so that a metallic cast obtained from it may be easily withdrawn from an impression in the same or some other soft metal.

The model, after having thus been trimmed, should have several coats of shellac or sandarach varnish applied to it with a small brush, to give it a smooth, hard and polished surface. This will prevent the model from wearing away by use, and render it more pleasant to the touch of the hand. The sandarach varnish is preferable to the shellac, as it is more transparent, and, consequently, does not color the plaster. It may be made in the following manner: take sandarach, ℥ v; elemi, ℥ i; digest in one quart of alcohol, moderately warm, until dissolved, then add venice turpentine, ℥ ij. This is perhaps, as good a varnish as can be used for plaster models. It is easily prepared, but in warming the alcohol, some care is necessary to prevent it from taking fire. The sandarach should be of the most transparent quality, and washed in water before being put into the alcohol.

Model of the Alveolar Border in Sections. It sometimes happens, when the alveolar ridge is very deep, that the lower edge of the arch inclines outwards, so much so as to make the span of it here considerably greater than it is a quarter or half an inch higher up. In this case, if sand be used in procuring a metallic model, it would be difficult to remove the plaster without injuring the impression made in the sand. To obviate this difficulty, the plaster model should be so constructed as to consist of three pieces, or sections. After the three are put together, the model may be pressed in the sand until a good impression is made, and afterwards removed separately. Dr. A. Westcott, I believe, was the first to introduce the use of this description of plaster model, which may be procured by first filling the wax impression with the plaster as in the manner before described; this is then removed, and about one-third from each side trimmed off, leaving the lower surface wider than the upper. This done, it is replaced in the impression, and filled up on each side with plaster as in the first instance. After the last has consolidated, the model is trimmed in the manner as before described, and when it has become perfectly dry, should be varnished.

Model and Counter-Model of the Alveolar Border, Metallic.—Various methods have been adopted for procuring metallic models and counter-models, but the two following are all which the author deems it necessary to describe. One of these consists in pouring fused metal in an impression made in sand with the plaster model. By this means a metallic model is procured, and the female or counter-model is obtained either by immersing this in, or pouring fused metal on it. The other consists in making the counter-model first, by either immersing the plaster model in, or pouring fused metal on it, and afterwards obtaining the male model by pouring fused metal in this.

When they are to be obtained by the first method, the dentist should be provided with a box about six inches square and three or four inches deep, filled with fine sand, such as is employed in brass and iron foundries. After this has been sufficiently dampened to enable it to preserve the form of the mould, the plaster model should be pressed in it to the depth of an inch or an inch and a half, leaving a portion of it unimbedded, so that, at the proper time, it may be readily removed. The sand should now be thoroughly packed on every side of the plaster model, which, after this has been done, should be gently tapped several times with some light instrument or hammer, for the purpose of starting or detaching it a little from the matrix, and then carefully removed. If the model be composed of three pieces, the middle one should be first removed, and afterwards the two others.

A shallow furrow or groove, of about an inch in length, should now be formed in the sand, on one side of the mould leading to it, and both the furrow and mould should then be encircled by a rim of sheet iron of about three inches in diameter, and an inch and a quarter in width. If, in the meantime, any particles of sand have fallen in the mould, they should be removed by blowing gently into it, either with the mouth or a bellows.

The mould being now prepared, the metal to be employed for the casting should be put in a tolerably thick wrought iron ladle, and fused either in a common fire or furnace. If brass is used, the latter will be required to fuse it, but if zinc, block-tin or lead be employed, a common fire will afford sufficient heat. After the metal has become thoroughly fused, it should be poured on the inside of the ring into the furrow formed in the sand, when it will immediately flow into the mould. It is necessary to convey the fused metal into the mould in this way to prevent the liability of injury which it might sustain by pouring the metal directly in.

If zinc or block-tin be used, a sufficient quantity should be melted to fill nearly the whole of the ring, but if brass be employed, it will only be necessary to fill the mould in the sand. For all ordinary purposes, either of the first will answer, but when a very thick plate is to be swaged, brass is preferable.

After the casting has cooled, it may be removed, or rather turned over so that the part presenting a transcript of the plaster *model* shall be upwards, while the remainder should be buried in the sand. The casting thus placed, should be encircled by the same ring which was first employed, and if it be made of block-tin, it should be covered with a thin coating of whiting, mixed with water, until it is of the consistence of cream. This may be put on with a camel's-hair pencil, and after it has become perfectly dry, a sufficient quantity to fill the ring, of block-tin or lead, should be fused in the ladle as before directed, and when its temperature has become so much reduced as not to char or even discolor white paper, it should be immediately poured into it.

If the last metal be poured into the ring while it is at a higher temperature, or if the precaution of covering the exposed part of the first casting with whiting be not used, the two will be liable to unite. Even when zinc is used for the first casting, there is danger of fusing it if the metal poured on be too hot. When the last metal used requires as high or nearly as high a heat to fuse it as the first, an accident of this sort is liable to occur, unless great care be taken to prevent it.

The gas, which is generated by the decomposition of the water in the sand, sometimes collects under, or diffuses itself through the metal, and renders the casting more or less imperfect. This, however, in most instances, may be prevented by pouring the metal slowly,

or by making a small opening through it, before it has congealed, with a wire, for its escape.

After the last metal has cooled, the castings may be separated, and if perfect, they are ready for use.

By the second method of procedure, the use of sand is wholly dispensed with, and this, for the reason that smoother castings may be secured by it, is, in most cases, preferable to the first. It consists in pouring fused lead into a sheet or cast iron cup or box, of about three and a half or four inches in diameter, and three inches deep, until it is half full, and immediately immersing so much of the plaster model in it as represents the shape of the alveolar ridge and remaining teeth, if the latter be left on the model, and holding it there until the lead congeals. It should then be removed, and the whole upper surface of the lead, including that of the mould made in it with the plaster model, covered with a thin coating of whiting in the manner as before directed. After this has become perfectly dry, fused block-tin, at a temperature so low that it will not char or discolor white paper when dipt and held in it, should be poured on, until the cup or box is filled. When cold, the castings may be removed from the iron cup or box, and separated, when they are ready for use.

When a metallic model and counter-model is procured in the manner as last described, the plaster model should not be varnished, and as the one immersed in the fused metal is generally broken in removing it, a duplicate, varnished as before directed, should be obtained.

When it is necessary to have brass or zinc castings, they must be made in sand, as first described.

Finally, by cutting about three-fourths of the teeth from the plaster model, before using it for obtaining metallic casts, the plate may be fitted more easily and perfectly, to the teeth, around which clasps are to be placed, than can be done when they remain on the plaster model, for in the former case, it need not be cut to fit the teeth until it has been swaged, while in the latter, this must be done first, and, consequently, in striking it up, it will be drawn to a greater or less distance from them.

Model, Antagonizing, for Artificial Teeth. After having made the surface of the solder smooth with suitable scorpers, (scrapers,) and files, the piece should be placed in the mouth, and, if a series of artificial teeth are to be attached to it, a rim of softened wax should be placed on the plate; the patient should now be requested to bring his jaws *naturally* and closely together, imbedding the teeth of the opposite jaw in it. While his mouth is thus closed, the wax on the outside of the teeth and alveolar ridge should be pressed closely against them. This done, the patient should open his mouth, when the plate and wax impression should be carefully removed and placed on a piece of paper, with the plate upwards. The upper side of the plate should now be smeared with olive oil, and filled with a thin paste made of plaster of paris, and as soon as the plaster has become sufficiently thick, it should be applied, until it is raised an inch above the plate, and extended back of it on the paper an inch and a half or two inches. As soon as the plaster has become consolidated, it should be neatly trimmed around the edges, and on the lower surface behind the plate and wax, and in which a deep crucial groove should be cut, or several conical depressions, half an inch deep, excavated to serve as moulds for the formation of corresponding ridges or protuberances on the model with which this is to antagonize. The grooves or depressions thus formed, as well as the impression made in the wax by the teeth of the lower jaw, after the plaster becomes dry, should be oiled, and filled with a thin paste of plaster, and as soon as the latter has acquired sufficient consist-

ence, it should be put on until this side is raised to a thickness equal to that of the side first filled.

After the plaster has thoroughly congealed, it should be trimmed as before directed. When it has become perfectly dry, the two pieces may be separated, the wax and plate carefully removed, and the pieces varnished, when the model is ready for use.

By this simple contrivance, an exact representation of the manner in which the jaws meet, is had, and the most accurate and convenient antagonizing model procured that can possibly be obtained. Provided with this, the dentist may proceed to select, arrange and antagonize the teeth.

Models, Elliot's Method of Making. A method invented by Dr. W. H. Elliot, of Montreal, for obtaining a perfect metallic model, which is done in the following manner:

The plaster model is first trimmed and then covered with one or two coats of shellac varnish, and when dry, it should be slightly smeared with sweet oil, the model is then laid upon the bench and the face surrounded by a copper hoop of about three-fourths of an inch in depth, this hoop is then filled with a composition of one part plaster of paris, and two parts sand, and when hard it may be carefully removed from the model by jarring it first with a light hammer, and then by cautiously supporting it with the fingers. We now have an impression in plaster and sand which is a perfect representation of the wax. This impression is then laid upon the bench with another hoop of the same size and shape laid upon it, for the purpose of deepening the mould. This last hoop may then be lined with more of the composition, so as to prevent the melted metal from escaping between them, and also to give the mould a proper shape. The mould may then be heated nearly to redness upon a shovel in the furnace, and it is then ready to receive the zinc.

Models, Lee's Method of Obtaining. "I take the impression," says Dr. L., "in the usual manner, preferring simply the clean yellow wax to any preparation of it. I fill the mould with prepared plaster, raising above the teeth and gums a body about half an inch high. This I trim smooth before hardening, and after melting off the wax, I dry the cast well on the fire, wrap it in two or three turns of common newspaper. It is now prepared to receive the metal. This consists of one part by weight of type-metal and two parts of lead, previously melted together and run into ingots. This alloy is easily fused, and retains its fluidity at a low heat, it is hard when cold, and in cooling does not shrink, the antimony in the type-metal having the property of expanding in cooling.

"This metal melted, but not hot enough to burn a strip of paper put into it, is now poured on the plaster model so as to cover the gums and nearly to the top of the teeth, as the latter should not be covered in the first pouring, as there may be an escape of vapor and gas from the plaster; as soon as this ceases, having kept the metal hot," the mould should be filled up, "forming a solid body above the teeth. When cold, take out the plaster, envelop the metal cast just made in paper and make the reverse swage by pouring in the metal somewhat colder than first used."

MODI'OLUS. A hollow cone in the cochlea of the ear, forming a central pillar, round which the gyri of the cochlea pass.

MODUS OPERAN'DI. Mode of operating. Mode of curing. The general principles upon which medicines act in morbid conditions of the body.

MOEBIUS. Dissertation on Tooth-Ache, by. Jena, 1661.

MOGILA'LIA. From μογις, with difficulty, and λαλειν, to speak. Impediment of speech, or difficult articulation.

MO'LA. The patella.

MOLAR. *Molaris;* from *mola,*

a millstone. That which bruises or grinds.

Molar Glands. Two small bodies formed by a number of mucous cryptæ, between the masseter and buccinator muscles, furnished with an excretory duct which opens opposite the wisdom tooth.

Molar Teeth. *Dentes molares; molares permanentes dentes; mylodontes; mylacri; gomphioi; grinders.* The molar teeth occupy the posterior part of the alveolar arch, and are six to each jaw—three on either side. They are distinguished by their greater size, the first and second being the largest, the grinding surfaces have the enamel thicker and surmounted by four or five tubercles or cusps, with as many corresponding depressions, arranged in such manner that the tubercles of the upper jaw, are adapted to the depressions of the lower, and vice versa.

The upper molares have three roots, sometimes four, and as many as five are occasionally seen; of these roots two are situated exteriorly, almost parallel with each other, and perpendicular; the third root forms an acute angle, and looks to the roof of the mouth.

The lower molares have but two roots, the one anterior, the other posterior, are nearly vertical and parallel with each other, and much flattened laterally. The roots of the two first superior molares correspond with the floor of the maxillary sinus, and sometimes protrude into this cavity—and their divergence secures them more firmly in their sockets.

The last molar, called the dens sapientiæ or wisdom tooth, is both shorter and smaller than the others, the roots of the upper wisdom tooth are, occasionally, united so as to form but one—while the last molar of the lower jaw is generally single and of a conical form.

The use of the molares, as their term signifies, is to triturate or grind the food.

MOLARES DENTES. Molar teeth.

MOLAS'SES. Melasses. The uncrystallizable saccharine and other extractive matters which drains from Muscovado sugar when cooling.

MOLE. *Mola.* A fleshy substance of variable size and consistence, possessing a low degree of vitality, which forms in the uterus.

MOLEC'ULAR. Composed of, or relating to, molecules.

MOL'ECULE. *Molecula.* A minute particle of any body. Molecules are the smallest particles of which bodies are supposed to be composed. Microscopic particles.

Molecule, Purkinjean. A germinal vesicle.

MOLI'MEN. From *molior*, to move. An attempt to struggle.

MOLLI'TIES. From *mollis*, soft. Preternatural softness of a part.

Mollities Cerebri. Preternatural softness of the brain.

Mollities Ossium. Softening of the bones.

Mollities Unguium. Softening of the nails.

MOLLUS'CA. Soft-bodied animals, destitute of articulations, but furnished with respiratory and circulating organs, and a nervous system.

MOLLUS'CUM. A disease of the skin, so called from its resemblance to certain molluscous animals, and consisting of numerous tubercles, of variable size and forms, containing a sebaceous matter.

MOLYB'DATE. A genus of salts, resulting from a combination of the molybdic acid with salifiable bases.

MOLYBDE'NUM. *Molybdena.* A white, brittle, and very infusible metal.

MOLYB'DOS. Lead.

MOMENTUM. In *Physics*, impetus. The quantity of force of a moving body, which is proportioned to its velocity, multiplied into its weight or quantity of matter.

MOMOR'DICA. The name of a genus of plants.

Momordica Balsam'ina. Balsam apple.

MOMORDICA ELATE'RIUM. The wild or squirting cucumber.

MONAD. From μονος, unity. A simple particle or atom. Also, the most minute rudimentary infusorial animal. The cells of the animal are termed monads.

MONADIFORM. Having the form of a monad.

MONADEL'PHIA. *Monadelphous;* from μονος, alone, and αδελφια, a brotherhood. Plants in which all the stamens are united by their filaments into one body or brotherhood, and which have hermaphrodite flowers.

MONAN'DRIA. *Monandrous;* from μονος, alone, and ανηρ, a husband. Plants whose flowers have but one male organ or stamen. They constitute one class, and three orders, in the sexual system of Linnæus.

MONAR'DA. The name of a genus of plants.

MONARDA FISTULO'SA. The purple monarda.

MONARDA PUNCTA'TA. Horsemint.

MONAVIUS. On the Affections of the Teeth. Basil, 1578.

MONE'SIA. A vegetable extract from an unknown tree of South America, possessing astringent and stomachic properties.

MONEY WORT. Lysimachia nummularia.

MONGIN. Author of a work upon the Propriety of Extracting Teeth from Pregnant Females, who suffer Severe pain from Tooth-ache; published, 1740.

MONIER, G. PH. L. Dissertation upon the Diseases of the Teeth, by. Paris, 1783.

MONIL'IFORM. Animals and plants whose parts or organs exhibit the appearance of a necklace or string of pearls.

MONKSHOOD. Aconitum napellus.

MONNI'NA POLYSTA'CHIA. A South American plant, the root and bark of which possess astringent properties.

MONOBLEP'SIS. From μονος, one, and βλεψις, sight. An affection in which vision is imperfect and confused when both eyes are used, and good, when only one is used.

MONOCEPHA'LUS. From μονος, one, and κεφαλη, head. A monster with two bodies and but one head.

MONOCOTYLE'DON. From μονος, one, and κοτυληδων, a cotyledon. A term applied to plants which have but one cotyledon or seed lobe.

MONOC'ULUS. From μονος, one, and *oculus*, an eye. A bandage for one eye. Also, a one-eyed monster.

MONŒ'CIA. From μονος, one, and οικια, a house. A term applied to plants which have male and female organs in separate flowers on the same plant.

MONOGAS'TRIC. *Monogastricus;* from μονος, one, and γαστηρ, stomach. Having but one stomach.

MON'OGRAPH. From μονος, one, and γραφη, description. A treatise on one subject. A medical monograph is a treatise on a single disease, or a single class of diseases.

MONOMA'NIA. From μονος one, and μανια, madness. Insanity upon one subject.

MONOMY'ARY. From μονος, and μυων, muscle. A bivalve whose shell is closed by one adductor muscle.

MONOPA'GIA. Hemicrania.

MONOP'ATHY. *Monopathia;* from μονος, one, and παθος, disorder. An affection in which but one organ or function is disordered. Monomania is a monopathic affection.

MONOPLAS'TIC. *Monoplasticus;* from μονος, one, and πλασσω, I form. That which has one form, or which does not change its form.

MONOR'CHIS. From μονος, one, and ορχις, testicle. A person who has but one testicle.

MONOTHAL'AMOUS. From μονος, one, and θαλαμος, a chamber. A univalve shell which has but one chamber.

MONS VEN'ERIS. The projecting

eminence covered with hair, immediately over the os pubis in women.

MONS'TER. *Monstrum.* Any unnatural production; any organized being with parts unnaturally developed, or having an extraordinary vice of conformation.

MOR'BID. From *morbus*, a disease. Diseased, or relating to disease.

Morbid Anatomy. The anatomy of diseased organs.

MORBIF'IC. From *morbus*, a disease, and *facere*, to make. Causing disease.

MORBIL'LI REGULARES. Measles.

MORBOSUM AUGMENTUM.—A morbid or diseased growth.

MORBO'SUS. *Morbose.* Diseased.

MORBUS. A disease.

Morbus Aphrodisius. Syphilis.

Morbus Arquatus. The jaundice.

Morbus Articularis. Gout.

Morbus Astralis. Epilepsy.

Morbus Cæruleus. Cyanosis.

Morbus Cœliacus. Mucous diarrhœa.

Morbus Coxa'rius. Hip disease.

Morbus Fellifluus Cholera.

Morbus Gallicus. Venereal disease.

Morbus Maculosus Werlhofii.—Purpura hæmorrhagica.

Morbus Mercurialis. Eczema mercuriale.

Morbus Metallicus. Colica pictonum.

Morbus Niger. Melæna.

Morbus Pallidus. Chlorosis.

Morbus Psoadicus. Lumbar abscess.

Morbus Saltatorius. Chorea.

Morbus Strangulatorius. Cynanche maligna.

Morbus Truculentus Infantum. Croup.

Morbus Virgineus. Chlorosis.

MOR'DICANT. *Mordicans.* A disagreeable pungent heat.

MORDICES. Teeth, or fangs.

MORGAG'NI, HUMOR OF. A transparent humor between the crystalline lens and its capsule.

MORIN'GA. The name of a genus of plants.

Moringa Aptera. Hyperanthera moringa.

Moringa Pterygosperma. The horseradish tree.

MORIOPLAS'TY. *Morioplastice;* from μοριον, a part, and πλαστικος, forming. The restoration of lost parts.

MORO. From *morum*, a mulberry. A small abscess resembling a mulberry.

MOROTRO'PHIUM. From μωρος, fatuous, and τροφη, support. An asylum for lunatics.

MORPHE'A. Lepra alphoides.

MOR'PHIA. From *Morpheus*, the god of sleep. A principle of opium.

MORPHIÆ ACETAS. Acetate of morphia.

Morphiæ Citras. Citrate of morphia.

Morphiæ Hydrochloras. Hydrochlorate or muriate of morphia.

Morphiæ Sulphas. Sulphate of morphia.

MORPHINE. *Morphina.* Morphia.

MORPHOL'OGY. From μορφη, form, and λογος, a discourse. In *Botany*, a treatise on the metamorphosis of organs. In *Zoology*, a treatise on the modifications of form which the same organ undergoes in different animals.

MORPHON'OMY. *Morphonomia;* from μορφη, form, and νομος, a law. The laws of organic development.

MORS. *Mortis.* Death.

MORSULUS. A little mouthful. Also, a lozenge.

MOR'SUS. From *mordeo*, to bite or know. A bite, sting or grasp.

MORT DE CHIEN. Spasmodic cholera in hot climates.

MORTA. Pemphigus.

MOR'TAL. *Mortalis;* from *mors, mortis*, death. Subject to death.

MORTAL'ITY. *Mortalitas.* Frequency, rate, or proportion of deaths in a place, disease, &c.

Mortality, Bills of. A register

exhibiting the number of deaths in a given time.

MORTAR. A hollow vessel, of iron, glass, marble, or wedgewood ware, for reducing solid substances to powder, or for making certain mixtures.

MORTARI'OLUM. A small mortar. Also, the socket of a tooth.

MORTET. Dissertation on the Extraction of the Teeth, with the aid of a New Instrument, by. Paris, 1783.

MORTIFICA'TION. *Mortificatio;* from *mors*, death, and *fio*, I become. The loss of vitality in any part of the body; but generally applied to soft parts.

MORTIMER, W. H. Observations on the Growth and Irregularities of Children's Teeth; followed by Remarks and Advice on the Teeth in General; to which is added a Short Essay on Artificial Teeth, by. London, 1845.

MORUM. Morus nigra.

MORUS NIGRA. The black mulberry tree.

MOSAIC GOLD. Bisulphuret of tin.

MOSCHATA NUX. See Myristica Moschata.

MOSCH. Musk.

MOSCHA'TUS. Musky.

MOS'CHUS. Musk.

Moschus Moschif'erus. The musk animal.

MOSQUI'TO. Musquito.

MOSS. The species of musci which grow on old wood, trees, damp ground, walls, &c.

Moss, Carrageen. *Chondrus crispus.* Irish moss.

Moss, Pectoral. Lichen pulmonarius.

Moss, Sea. Fucus helminthocorton.

MOTHER. Mater. Also, a term applied to many chemical preparations and plants.

Mother of Pearl. The silvery, brilliant internal layer of several shells, particularly those which produce the pearl.

Mother of Thyme. Thymus serpyllum.

Mother-Water. Saline solutions from which crystals have been deposited.

Mother-Wort. Leonurus cardiaca.

MOTHER'S MARK. Nævus.

MOTIL'ITY. *Motilitas;* from *motus*, movement. The power of moving.

MO'TION. *Motio. Motus.* The act of moving, or changing place.

MOTOR. From *moveo*, to move. A mover; applied to muscles and nerves.

Motor Oculi Exter'nus. The sixth pair of nerves.

Motor Oculorum. The third pair of nerves are so called because they go to the muscles which move the eye.

MOTORY. *Motor.* That which induces movement.

MOTUS. Motion.

MOUNT'ING. The act of preparing any thing for use.

Mounting Artificial Teeth upon an Osseous Base. Although a base constructed from any osseous substances is exceedingly objectionable, it is, nevertheless, sometimes used. For the manner of preparing a base of this sort, See Osseous Base for Artificial Teeth. The method of mounting teeth upon a base of this description, is so fully and accurately described by Desirabode, that we shall quote the description which he has given. He says: "When we wish to mount human teeth upon a base, the sea-horse, or any other osseous substance, cut in this manner; it having been well adjusted in the mouth, we place the teeth below it and adjust them in their proper places, and maintain them there with a little modelling wax, then with a foret, (drill,) we perforate them with holes in their ends, in which we hold them with small pegs for the time being, upon their base. We then increase the size of the holes, and sometimes substitute for the pegs, central metallic pivots, or two pegs, either laterally or one before the other, with rivets in both bases. Sometimes, on the contrary, screws, either introduced through the teeth, and riveted upon them, or but

more rarely, introduced and riveted in the side of the teeth, but not crossing their base.

"It is nearly in the same manner that we mount upon bases of this sort mineral teeth. We obtain the adjustment necessary, by fixing them on wax, then we afterwards remove them with care. The impress marked by their form indicates the precise place where the holes destined to receive their pivots, should be pierced; we then rivet them upon the concave part of the base, using the precaution to make a countersink for the reception of the heads of the rivets, to prevent wounding the soft parts, with which they would come in contact.

"In order that the teeth may not crack in riveting, we place them alternately upon a piece of lead, hollowed like a V, upon all the points of which they bear exactly; when this precaution is well taken, we can use the hammer, without endangering the piece. We admit, here, that it acts with a pivot which does not cross; but in the contrary case, we apply the rivet of the tooth (human tooth) having its pivot previously attached upon a steel block, maintained in a vice, then we rivet the other extremity upon the concave part of the base by means of another small steel anvil, whose point we hold upon the part that we wish to rivet, and upon which we strike with precaution.

"The person who is riveting, cannot hold the anvil, the hammer, and the piece, he is obliged to have an assistant who shall hold this latter. We may, however, rivet directly alone with a pointed hammer, being careful not to injure the base, which is necessarily weaker in all points where the teeth are received, than in the surrounding parts.

"As the rivets made directly upon hippopotamus are never as solid as upon a metallic substance, we sometimes cut into that part of the base which corresponds to the extremity of each pivot, a groove intended for the reception of a very small band of platina, pierced with as many holes as there are rivets, and upon which all are united in a countersink. We may, however, make the extremity of the pivot, a small target of platina or gold, countersunk in the base, upon which we rivet equally with the surface, so that it may not project."

Some practitioners are in the habit of coloring bases of this sort so as to imitate, as nearly as possible, the gums, and particularly such portions as would be likely, by the movements of the lips, to become exposed to view. For the accomplishment of this, Laforgue recommends steeping the piece for a short time in alum-water, and then dipping it in a decoction of cochineal, but the coloring matter is soon removed by the action of the fluids of the mouth. Other dentists have adopted other means, but none have succeeded in giving to it a color that was not soon destroyed by the action of the buccal secretions. Another plan, however, consists in boiling the piece in a solution of soda, with a few drops of oil, then applying a solution of tin and hydrochloric acid, and afterwards boiling it in an earthen vessel containing a pint of water, two and a half drachms of madder, one half drachm of kermes, and seven grains of crushed cochineal. This done, it is removed, dipped in warm soap-suds, when it assumes a rose color.

In the construction of a base from the tooth of the hippopotamus, it is important that it should be made from a single piece, though when a piece of sufficient size cannot be procured, two pieces may be united so as to answer the purpose.

In describing the method of mounting artificial teeth upon an osseous base, the author has not deemed it necessary to enter into very minute detail, as substances of this sort, are, at present, rarely used for the purpose.

Mounting Artificial Teeth upon a Porcelain Base. As the use of

porcelain bases for maintaining artificial teeth, has been almost entirely abandoned, the author does not deem it necessary to describe the manner either of mounting teeth upon them or of their construction. Their use originated in France, and for a time was advocated by a few dentists, but at present they are seldom if ever employed. Their construction is attended with difficulty, especially for interrupted pieces; it is also difficult to maintain them in the mouth, and still more so to mount artificial teeth upon them in a secure and substantial manner. Besides, they are liable to be broken by the slightest accident. So fully aware of this was Audibran, that he recommended that several pieces be made at once, to be prepared for accidents, which are so very liable to occur, and Lefoulon admits, that in the construction of half a dozen, not a single perfect one may be obtained.

Mounting Human Teeth upon a Metallic Base. The following is the method described by Desirabode of mounting human teeth upon a metallic base, or plate: "The plate being prepared, we proceed to fit and adjust the teeth to it, after having attached the fixtures which are to retain it in the mouth, namely, crotchets, (clasps.) But as it rarely happens that the mould has been preserved perfect; we take it from the plate, put in place a new wax impression, not only of the toothless places which it should cover, but of the parts which surround it, so that the adjustment of the teeth shall be made in all their definite relations. When we have this impression, we fix the plate in the place where we may wish to have it, fill the impression with plaster or sulphur, and obtain a new mould in relief, upon which the plate rests for the adjustment of the teeth; we cut these of the proper length with a saw or file, but rarely with the latter—we then cover the plate with a little rouge, applying each tooth upon it to mark each point to be removed with the file and engraver; we make the median line the starting point, placing the central incisores first, by giving them the proper direction.

"As to mounting the teeth, there are several methods of procedure in doing it; fixing them by means of a central pivot, by maintaining them with two lateral pegs, but placed vertically, as the pivot, of which there is but one variety; by adjusting with a screw upon the plate soldered to the cuvette," (base,) "and a peg behind; this gives them much strength, and permits them to be advanced, as may be desired.

"If we employ one of the two methods, we first place the pivot or the two pegs upon the plate, by piercing the latter through and through, at the place which we intend the tooth to occupy, or which corresponds to the hole in it, which point may be indicated by moistening the plate after having placed upon it a thin layer of wax, and then adjusting the tooth, which leaves a mark or imprint at the proper point; then we solder these pivots upon the convexity of the plate, that is to say, to the side on which we apply the tooth, and when they are solidly fixed, we place the teeth upon them, and rivet them.

"Finally, if the pivot is a transverse one, we rivet on the posterior surface of the tooth; if not transverse, we turn with a little wire, and make it enter by the force of co-adaptation in the tooth. But experience proves that transverse pivots, crossing and riveted on one side or the other, are the best, because they do not wear the holes, or allow the pieces to vacillate; the screw pivots which are so easily placed, and hold the teeth so securely that it is difficult to remove them with pincers, but we think they should be first introduced into the teeth, and afterwards, into the plate, to which they should be riveted."

Mounting Porcelain Teeth upon a Metallic Base. American Method. Where a vacuity, requiring only one or even five or six teeth, is to be filled,

it is important that the artificial should correspond in shade and color, with the natural organs, for in proportion as they are whiter or darker, will the contrast be striking, and their liability of detection increased. But of the two, it is better that they should be a little darker than any whiter. Their outer configuration should resemble, too, the shape of those which have been lost or very nearly.

As they are selected, they should be placed on the plate, and retained there by a piece of wax placed on it behind them. If they do not fit closely to the plate and gum, they should be ground on an emery wheel, or small grindstone, until they do, and be so arranged as to meet the teeth with which they are intended to antagonize, at the same instant that the natural teeth, which have antagonists, come together. The antagonizing models will enable the operator to do this with the most perfect accuracy.

As it is often necessary to cut away a considerable portion of a tooth in order to make it fit accurately to the plate, a number of emery wheels, or small grindstones, varying from three-fourths of an inch to six or seven inches in diameter, are required, and these should be turned in a small foot-lathe.

After the teeth have been thus arranged and adjusted, a gold plate, large enough to cover the posterior surface of each, should be fitted to them in the following manner: each tooth has securely fixed in the back part of it, two platina rivets for the purpose of connecting the plate to it. Each backing, therefore, should have two holes punched through it, by means of a pair of dentists' punch forceps, large enough to admit the rivets of the teeth, and of the same distance from each other. The holes on the back part of the plate should be slightly enlarged, and after placing it on the tooth, it should be made fast by riveting or striking up, with a light hammer, the ends of the platina rivets. The gold backings of the teeth should be slightly hollowed before they are put on, so that they may fit up closely to every part of the back of each tooth, and the plate employed for this purpose should be nearly as thick as that used for clasps.

After the gold plates have been riveted to the backs of the teeth, they should be accurately fitted to the plate, and retained in their situation by the wax behind them.

The gold plate, with the teeth and wax on it, should now be carefully removed from the plaster model, and placed on a large piece of charcoal, using the precaution not to disturb or disarrange the teeth. A paste, made with plaster of paris and water, of the thickness of thin batter, should next be poured around them, until their outer surface and coronal extremities are covered to the thickness of half an inch. When this has become hard, the wax should be removed from behind the teeth.

If it should be found, on the removal of the wax, that the gold backings do not all fit down tight to the plate, the apertures should be filled with gold foil. This done, borax, triturated in water, in the manner as described in another article, until of the consistence of cream, should be applied with a camel's-hair pencil to all the parts where it is wished that the solder should take effect, not omitting the platina rivets that pass through the gold plate on the backs of the teeth, for experience has proven that these cannot be made too secure. They should, therefore, be made fast by soldering as well as riveting.

When the surface of the plate covering the alveolar ridge is very uneven, greater accuracy may, perhaps, be secured in fitting the backings to it, by placing the plate on a piece of charcoal, after the teeth have been arranged, ground up, antagonized and fixed to it with wax, then covering their outer or labial surfaces, and coronal extremities, with a paste or batter of plaster, to the thickness of half an inch. After this has become dry, the wax may be warm-

ed and removed, and the teeth taken off, one by one, backed, and then replaced. In this way the backings may be adjusted, and made to fit with the greatest exactness.

After applying the borax, a number of small pieces of solder made from recipe No. 1 or 2, (see Gold Solder,) should be applied immediately on the line of connection between each tooth and the plate, and one over each rivet.

In soldering the teeth to the plate, the heat should be applied by means of a large flaring flame, until the whole mass becomes red, and then by one of about half an inch in diameter, thrown immediately on the line of connection between the backing of a single tooth and the plate, and as soon as the solder flows freely here, and over each rivet, it should be passed to the adjoining tooth, and so on, until the process is completed. When the solder runs in the wrong direction, the heat, as before stated, should be increased at the point where it is wished that it should take effect, which will, immediately, if a sufficient amount be applied, cause it to flow in that direction.

After the process of soldering is completed, the plaster, as soon as the piece has become sufficiently cool, should be carefully removed from the teeth and plate. The piece should now be placed in a glass or porcelain vessel containing a mixture of equal parts of sulphuric acid and water, and remain there until the borax, which, by the process of soldering, has lost its water of crystallization and assumed a glassy hardness, is decomposed. This process is termed by jewellers, pickling, and requires from ten minutes to half an hour for its completion, according to the strength of the acid and the quantity of vitrified borax on the plate. After this is decomposed, the acid should be washed from the piece, and any rough portions of solder that may present themselves, carefully removed by means of suitable scrapers.

In removing the roughness which may have been occasioned by the imperfect fusion and unevenness of any of the pieces of solder, or from its flowing in a wrong direction, care should be taken not to cut away too much of the plate. After the work has been made as smooth as possible with scrapers, which should be so constructed as to be readily applied and made to act upon any part of the surface of the plate, backings of the teeth and clasps, it should be rubbed with pieces of scotch stone and water until every scratch is removed.

The piece should now be placed in a porcelain vessel containing the following mixture: pul. nitrate of potassa, ℥ ij; muriate of soda, ℥ i; alum, ℥ i; water, ℥ iv.

After boiling for half an hour in this, and the object of which is to decompose the copper in the surface of the solder, it should be boiled a few minutes in four ounces of water, and one ounce of sub. carb. soda, for the purpose of decomposing the acid formed by the first mixture, and then washed with a brush in clear water.

The copper being removed from the surface of the plate, the gold will have a beautiful orange color, which it will always retain. The secretions of the mouth will not only fail to tarnish it, but it will be free from the disagreeable taste of which so many, who wear artificial teeth applied on plate, complain.

The process of finishing having been conducted thus far, it may be completed by polishing every part of the surface of the plate, backings of the teeth, and clasps, with highly tempered, and finely polished burnishers, or a brush-wheel, rotten-stone and *jeweller's rouge*. (See Rouge, polishing.) If burnishers are used, they should be frequently dipt in a mixture of water and castile soap, and in polishing, should be rubbed backwards and forwards in the same direction, until every part of the gold exhibits a high polish. Burnishers of

different shapes and sizes will be required for different parts of the work.

A large piece, however, can be polished in much less time, if not more perfectly, with a revolving brush, turned in a foot-lathe, than with burnishers. But, before the rotten-stone is applied to the brush, it should be lightly smeared with suet, which is done by holding a small piece against the brush while it is revolving. The rotten-stone is applied in the same manner, and with the brush thus charged, the polishing may commence, but the plate should not be exposed too long to the friction of the brush and rotten-stone, as they wear it away very rapidly. After the piece has been exposed to the action of the brush until all the fine scratches have been removed, it should be thoroughly washed with a hand brush in soap and water, then in water and afterwards rubbed with a piece of soft buckskin wrapped or sewed around a small blunt-pointed piece of wood and rouge, until every part is made brilliant.

In the application of teeth, prepared in the manner, as just described, it often becomes necessary to make some little alteration in the adaptation of the clasps. This, the operator can always effect, if they have been attached to the plate with the proper care, with a pair of common pliers, and it should always be borne in mind that they should never be so applied as to prevent the patient from removing and replacing the piece at pleasure. He should be directed to do this two or three times every day, and each time, to thoroughly clean the teeth to which the clasps are applied, and it would be well too, for the artificial piece to be taken out every night, on going to bed, and remain out until morning.

Mounting Porcelain Teeth upon a Metallic Base, English Method. The porcelain teeth manufactured in England, both pivot and plate, have a vertical canal passing through the centre for the reception of a pivot, the means of attachment employed, whether applied to a root or a metallic base. The manner of mounting them upon a plate, or metallic base, is thus described by Dr. James Robinson.

"The plate being placed upon the cast, and the teeth selected, the next process is to rough-fit them to the plate. This is done by repeatedly applying the base of the tooth to that part of the plate to which it is to be fixed; the plate having previously been painted with vermilion and oil; and by cutting away, with the emery wheel, that portion of the tooth that is marked by the color.

"The exact point where the rivet is to be inserted, so as to correspond in position to the natural teeth in the mouth, must now be ascertained. This is done by temporarily fixing the teeth in their intended places on the plate by means of a piece of warm beeswax; on the removal of which, a raised point will be observed, corresponding to the openings in the teeth; and at this point the rivet is to be inserted by first drilling a hole of the same size as the gold wire intended to be used for the rivet, and soldering it to the plate in the usual manner.

"The process of fitting the teeth must now be continued until they are reduced so as to correspond in length with those in the mouth. In most cases it will be found necessary to file away the outer edge of the plate somewhat, in order to allow the teeth to project, so that when inserted in the mouth, their edges shall come in close contact with the gum.

"Place the teeth in their rivets, and insert a small quantity of sulphur between the rivets and the tubing; hold the plate over a spirit lamp until the sulphur melts; then allow it to cool gradually, and it will be found that the teeth are securely fixed to the rivets. Some dentists use pewter solder in the same manner; it is objectionable, inasmuch as it yields a constant metallic taste in the mouth."

Mounting Porcelain Teeth upon a Metallic Base, French Method. The following is the method adopted in France of mounting porcelain teeth upon a metallic base or plate as described by Desirabode. He says, "The plate adjusted properly in the mouth, we take a second impression, so as to secure the proper relative relations between them and the plate, and which have been altered; we adapt the teeth upon the plate, one by one, and retain them there for the time being, by means of wax placed behind them; then we place the piece upon a small plate of iron, and pour upon its anterior part a mixture of plaster, which, becoming dry, maintains the teeth in the place they should occupy, and which permits the wax, after being warmed, to be removed; then we solder them to the plate. We, moreover, give to them greater solidity by soldering to their posterior surface small plates of platina. After having tried the piece in the mouth of the patient, such corrections as may be necessary should be made, noticing if the mouth closes naturally, &c.

"Mounting upon plate is not confined to one or more teeth as is the case with pivots. It may be resorted to for all kinds of pieces, from one tooth to a complete denture, and serves for continued as well as interrupted dentures. By the latter term, we mean pieces between the teeth of which intervals are left for teeth, which may be remaining in the mouth; and this kind is most frequently met with in practice, and has the greatest variety of forms.

"When the part of the alveolar border, upon which we wish to place an artificial piece, has experienced a great loss of substance, we oftener mount this piece upon a base of hippopotamus which permits us to imitate perfectly, the gums. But the color which we give to this piece, as we shall soon see, is not very durable; on the other hand, the pieces thus mounted always have a certain weight. These two reasons have given us the idea of imitating the gums on the bases which sustain the mineral teeth.

"In order to accomplish this, the piece being properly mounted, we take a sufficient quantity of the following composition given by Delabarre: porcelain paste, ʒ i; white sand, ʒ ss; any oxyds we wish, gr. 10.

"We add a portion of mica, or calcined gypsum, to render the paste very fusible, and we reduce it to a very fine powder.

"We apply a proper quantity of this paste either to imitate the gums or only to interdent their points; finally, we try the piece in order to correct the defects which may now be found to exist, then we put it to the fire. The presence of the gypsum in the paste renders it fusible at a much lower temperature than would be necessary to fuse the mineral, or bake the mineral teeth unconnected with it; this paste agglutinates, and solidifies the two parts of the piece; but if this composition has the form, it has not the color of the gums.

"There are two means which can be employed for coloring it; one composed and employed by Dubois-Chemant, consists in giving to the paste, of which we are speaking, the tint of the gums, by adding to it a certain quantity, for example, precipitated purple of Cassius, or any other oxyd which has the same property; but, as we may, with reason, observe, the gums thus colored, want that transparency which life gives to all of the animal tissues. Fonzi, who first noticed this defect, believed he might avoid it, by using jeweller's enamel, colored in melting, or afterwards painted. Pieces thus enamelled do not last long, and we have been obliged to abandon the use of them.

"Those who employ this method, proceed thus: they cover the paste or biscuit which forms the gum with an enamel, composed of: petunsé, 2 drachms; oxyd of gold, 6 grains; kaoline, 6 grs.

"They cover the gums with this, including their apices, and then put it to the fire, but as it often happens that, from too intense heat, the vermilion color of the enamel turns pale, they take the oxyd of gold and beat it very fine, and add an equal part of turpentine and lavender. When the mixture is made, we pour a few drops of oil into it, which gives brilliancy to the color; then we paint with a brush that part of the piece which corresponds to the gum. We then place this piece well dried in an oven, and when it has become red, and thoroughly glazed, we take the muffle from the fire, and let it become cold, before we draw the teeth from it, as it might crack them if we expose them too suddenly to a lower temperature.

"As this work is complicated, and as it is always difficult to calculate perfectly the results, we prefer, with reason, in a doubful case, that is to say, before furnishing the front part of the plate with a substance for imitating the gums, particularly where there is a loss of the alveolar border, we prefer, we say, to make a true inlaying of hippopotamus, cut for this purpose, fixed to the plate by the same pivots, a screw which unites the teeth to the latter, colored by one of the methods which we have given. We have even made this inlaying with blonde coral, that is, plain rose, but this substance increases the work without a sufficient compensation."

MOUSE-EAR. Hieracium pilocella.

MOUTH-GLASS. A small oval or round mirror, fixed in a wood, ivory, pearl or metallic frame, with a handle from three to six inches in length, and employed by dentists in the examination of the teeth. The diameter of a mouth-glass or mirror should not exceed three-fourths of an inch.

Mouth. *Os. Cavum oris.* An oval aperture, situated in the lower and anterior part of the face between the jaws, bounded above by the palatine processes of the superior maxillary and palate bones, below by the tongue and mylohyoid muscles, laterally by the cheeks, anteriorly by the lips, and posteriorly by the soft palate and fauces. It contains the dental apparatus, and is a complicated piece of mechanism; forms an essential part of the human frame; has the widest possible range of sympathy, contains a great variety of organs, and performs an equally great variety of functions. It, also, contains the organs of taste, and is concerned in the four primary stages of digestion; prehension, mastication, insalivation and deglutition, besides being engaged in the intellectual acts of speech and expression. The term mouth, is also applied to the open extremities of vessels.

Mouth, Sore. Aphtha.

MOUTON. Essay on Odontechny, or Dissertation on Artificial Teeth, by. Paris, 1786.

MOXA. A Chinese term employed to designate a cone or cylinder of prepared cotton, or other combustible substance employed in a state of combustion, to cauterize the skin.

Moxa Japanica. Artemisia chinensis.

MOXIBUS'TION. The cauterization of the skin by means of moxa.

MU'CILAGE. *Mucilago.* A watery solution of gum, or substances closely allied to it.

MUCILAG'INOUS. Of the nature of, or abounding in mucilage.

MUCILAGO. Mucilage.

Mucilago Aca'ciæ. Mucilage of gum arabic.

Mucilago Am'yli. Mucilage of starch.

Mucilago Gummi Arabici. Mucilage of gum arabic.

Mucilago Tragacanthæ. Mucilage of tragacanth.

MUCIP'AROUS. An epithet applied to the follicles of mucous membrane.

MUCOCE'LE. Fistula lachrymalis.

MUCO-ENTERITIS. Enteritis.

MUCOS'ITY. *Mucositas.* Fluids containing, or of the nature of, mucus.

MU'COUS. A name applied to parts which contain or secrete mucus, as mucous glands, mucous membrane, &c. Also, of the nature of mucus.

Mucous Glands. Glands that secrete mucus.

Mucous Membrane. The membranes that line the canals, cavities and hollow organs, which communicate externally, and they are so called, from the mucous fluid which they secrete, and with which they are lubricated.

Mucous Membrane of the Mouth. The whole interior cavity of the mouth, palate, pharynx and lips, are covered by mucous membrane forming folds or duplicatures at different points called fræni or bridles. Beginning at the margin of the lower lip, this membrane can be traced lining its posterior surface, and from thence it is reflected on the anterior face of the lower jaw, where it forms a fold opposite the symphysis of the chin, the frænum of the lower lip; it is now traced to the alveolar ridge, covering it in front and passing over its posterior surface, where it enters the mouth. Here it is reflected from the posterior symphysis of the lower jaw to the under surface of the tongue, where it forms a fold or bridle called the *frænum lingua.* It now spreads over the tongue, covering its dorsum and sides to the root, from whence it is reflected to the epiglottis forming another fold; from this point it can be followed entering the glottis and lining the larynx, trachea, &c.

In the same way, commencing at the upper lip, it is reflected to the upper jaw, and at the upper central incisores forming a fold, the *frænum* of the upper lip; from this it passes over the alveolar ridge to the roof of the mouth, which it completely covers, and extends as far back as the posterior edge of the palate bones; from this it is reflected downwards over the soft palate, or, more strictly speaking, the soft palate is formed by the duplicature of this membrane at this point, between the folds of which are placed the muscles of the palate described in another place.

From the palate it is traced upwards and continuous with the membrane lining the nares, and downwards with the same, lining the pharynx, œsophagus, stomach and intestinal canal.

The mucous membrane, after entering the nostrils and lining the roof, floor, septum nasi, and turbinated bones, enters the maxillary sinus between the middle and lower spongy bones, and lines the whole of this great and important cavity of the superior maxilla.

Many mucous glands or follicles, elsewhere enumerated, are scattered over the whole of this membrane, and furnish the mouth with its mucus.

As this membrane passes over the superior surface of the alveolar ridge of both jaws, its texture becomes changed, and receives the name of gums.

MUCRONATA CARTILAGO.—The xiphoid cartilage.

MUCRONA'TE. *Mucronatus.*—Sharp-pointed.

MUCUS. From μυξα, the mucus of the nose. A substance analogous to vegetable mucilage, secreted by the mucous membranes.

Mucus, Vegetable. Gum.

MUDAR. *Madar.* Calotropis gigantea, a plant of the asclepiadaceous order.

MUF'FLE. An arched vessel of earthenware, with a flat bottom, in which substance may be exposed to a red heat in a furnace without coming in contact with the fuel. See Porcelain Teeth, manufacture of.

MUGWORT. Artemisia vulgaris.

MULBERRY TREE. Morus nigra.

MULLEIN, BLACK. Verbascum nigrum.

MUL'LUS. The name of a genus of fishes.

Mullus Barbatus. *Mullus ruber.* The red surmullet.

Mullus Sarmuletus. The striped surmullet.

MULSUM. Hydromeli.

MULTAN'GULAR. *Multangularis.* Having many angles or corners.

MULTICUSPIDATI. The molar teeth are so called from the number of cusps or protuberances they have upon their grinding surfaces.

MULTIF'IDUS. Divided into many parts.

Multifidus Spinæ. The transversalis dorsi.

MULTIP'AROUS. One that brings forth many young at a time.

MULTIVALVE. From *multus,* many, and *valvæ,* folding doors. In *Conchology,* shells composed of many pieces or valves.

MUMMY. *Mumia.* A dead body dried after having been embalmed.

MUMPS. Cynanche parotidea.

MUNDICATI'VUS. *Mundificans;* from *mundo,* to cleanse. Having the power to cleanse or purify.

MUNGOS. Ophiorrhiza mungos.

MURÆ'NA. The name of a genus of fishes.

Muræna Anguil'la. The common eel.

Muræna Conger. The conger eel.

Muræna Helena. *Muræna romana.* The Roman eel.

MURAL. *Muralis;* from *murus,* a wall. Belonging, or appertaining, to a wall.

MURIA. Brine; salt water.

MURIAS. A muriate or chloride.

MURIAT'IC. *Muriaticus;* from *muria,* brine. Belonging to sea salt.

Muriatic Acid. Hydrochloric acid.

Muriatic Acid, Oxygenated.—Chlorine.

Muriatic Ether. Hydrochloric ether.

MURMUR, RESPIRATORY.—The noise occasioned by inspiration and expiration.

MURPHY, JOSEPH. A Natural History of the Human Teeth, with a Treatise on their diseases from infancy to old age, by. London, 1811. Although intended more for the general than the professional reader, the above named work contains much valuable and curious information.

MURPHY, J. L. Author of a Popular Treatise on the Structure, Diseases and Treatment of the Human Teeth, London, 1837.

MU'SA. The name of a genus of plants.

Musa Paradisi'aca. The plantain tree of the tropics.

Musa Sapien'tum. The banana.

MUS'CA. Μυισκη; from μυζω, to murmur. The name of an extensive genus of insects. The fly.

Musca Hispanica. Cantharis.

MUSCLE. *Musculus;* a diminutive of *mus,* a mouse, from its supposed resemblance to a flayed mouse. A reddish, vascular and highly contractile organ. It is through the agency of the muscles that the various movements of the body are performed.

MUS'CULAR. *Muscularis;* from *musculus,* a muscle. Belonging, or relating, to the muscles.

Muscular Fibres. The fleshy fibres which form the body of a muscle.

Muscular Nerve. The fourth pair is so called.

MUSCULO-CUTANEOUS. Appertaining to the muscles and skin.

Musculo-Cutaneous Nerve. The external cutaneous nerve given off by the brachial plexus, and a branch furnished by the popliteal nerve, are each so called.

Musculo-Rachidian. Relating to a muscle and the spine. Applied, also, to the posterior branches of the intercostal, lumbar and sacral arteries.

MUSCULUS. A muscle.

Musculus Acclivis. Obliquus internus abdominis.

Musculus Auxiliarius. Pyramidalis abdominis.

Musculs Cutaneus. Platysma myoides.

Musculus Eustachii. Tensor tympani.

Musculus Fasciæ Latæ. Tensor vaginæ femoris.

Musculus Patientiæ. Levator scapulæ.

Musculus Penicillatus. Levator labii inferioris.

Musculus Stapedius. Stapedius.

Musculus Testicondus. *Musculus testis.* Cremaster.

Musculus Tubæ Novæ. Circum flexus palati.

MUS'CUS. From μοσχος, tender. A moss.

Muscus Arboreus. Lichen plicatus.

Muscus Caninus. Lichen caninus.

Muscus Clavatus. Lycopodium.

Muscus Cranii Humani. Lichen saxatilis.

Muscus Erectus. Lycopodium selago.

Muscus Islandicus. Cetraria islandica.

Muscus Marinus. Conferva rupestris.

Muscus Maritimus. Corallina officinalis.

MUSHROOM. Fungus.

MUSICOMA'NIA. *Musomania;* from *music*, and *mania*. Passion for music carried to such an excess as to derange the faculties of the mind upon that subject.

MUSK. *Moschus.* A peculiar concrete substance, having a strong, penetrating and powerfully diffusive odor, obtained from the *moschus moschiferus*, or musk-deer.

Musk, Artificial. A dark brownish-red substance, having a burning, bitter, aromatic taste, and a musky odor, obtained from a mixture of rectified oil of amber and nitric acid.

Musk-Melon. Cucumis melo.

MUSQUI'TO. A small and exceedingly troublesome insect, bred in water, and abounding in low lands and marshes.

MUSSITA'TION. *Mussitatio.* A movement of the lips and tongue without producing any audible sounds; an unfavorable sign in disease.

MUSTARD. Sinapis.

Mustard, Hedge. Erysimum alliaria.

Mustard, Mithridate. *Mustard treacle.* Thlaspi arvense.

Mustard, Yellow. Sinapis alba.

MUTILA'TION. *Mutilatio.* From *mutilus*, broken. Loss of a limb or other exterior organ or portion of the body.

MUTI'TAS. From *mutus*, dumb. Dumbness.

Mutitas Surdo'rum. The speechlessness of deaf persons.

MYASTHENI'A. From μυς, a muscle, and ασθενεια, debility. Muscular debility.

MYCES. Fungus.

MYCTE'RES. The nares.

MYCTEROPHO'NIA. From μυκτηρ, the nose, and φωνη, the voice. Nasal voice.

MYDON. Fungous flesh in a fistulous ulcer.

MYDRIA'SIS. Morbid dilation of the pupil of the eye.

MYELENCEPH'OLA. From μυελος, marrow, and εγκεφαλον, brain. A primary division of animals, comprehending all those which have a brain and spinal marrow. Vertebrata.

MYELI'TIS. From μυελος, marrow, and *itis*, signifying inflammation. Inflammation of the spinal marrow or its membranes.

MYLACRI. The molar teeth.

MYLA'CRIS. The patella.

MYLE. The patella. Also, a mole in the uterus.

MYLICUS. Molar.

MYLODONTES. The molar teeth.

MYLO-GLOSSUS. From μυλη, the jaw, and γλοσσα, the tongue. Some fibres of the constrictor pharyngis superior have been so called.

Mylo-Hyoideus. A thin, flat muscle, forming the floor of the mouth. It arises from the mylo-hyoid ridge on the posterior surface of the lower jaw, and

is inserted into the body of the os-hyoides.

MYLO-PHARYNGEUS. The constrictor pharyngis superior.

MYOCEPH'ALON. Staphyloma.

MYOCŒLI'TIS. From μυων, muscle, κοιλια, lower belly, and *itis*, signifying inflammation. Inflammation of the muscles of the abdomen.

MYODYN'IA. From μυων, muscle, and οδυνη, pain. Pain in the muscles.

MYOG'RAPHY. *Myographia;* from μυων, muscle, and γραφειν, to describe. A description of the muscles.

MYOLEM'MA. *Myolema;* from μυων, muscle, and λεμμα, a coat. The membranous covering of each muscular fibre.

MYOL'OGY. *Myologia;* from μυων, muscle, and λογος, a discourse. A treatise on the muscles.

MYON. Muscle.

MYO'PIA. From μυω, I contract, and ωψ, the eye. Near-sightedness.

MYOPS. One affected with myopia.

MYO'SIS. A permanent contraction of the pupil of the eye.

MYOSI'TIS. Inflammation of a muscle.

MYOT'OMY. *Myotomia;* from μυων, a muscle, and τεμνειν, to cut. The anatomy of the muscles.

MY'RIAPODA. *Myriapods;* from μυριας, ten-thousand, and πους, foot. A term applied to a class of articulate animals, characterized by their numerous feet, equalling in number the articulations of the body.

MYRI'CA. The name of a genus of plants.

MYRICA GALE. Dutch myrtle. Sweet willow.

MYRIS'TICA. The name a genus of plants.

MYRISTICA MOSCHA'TA. *Myristica aromatica. Myristica officinalis.* The tree which produces the nutmeg and mace.

MYRME'CIUM. A very painful, deeply rooted, soft wart, with a broad base, seated on the palms of the hands and soles of the feet.

MYROBAL'ANUS. The name of a dried Indian fruit, of the plumb kind, and of which there are several varieties.

MYRON. An ointment.

MYRONIC ACID. A bitter acid of black mustard.

MYROSPER'MUM. Myroxylon.

MYROX'YLON. The name of a genus of plants.

MYROXYLON PERUIF'ERUM. The Peruvian balsam tree.

MYRRHA. Myrrh. The concrete juice of balsamodendron myrrha. It is of a reddish-yellow, or reddish-brown color, of a peculiar smell, and bitter taste.

MYRRHEN. Dissertation on Odon talgia, by. Geiss, 1693.

MYRRHIS. Sweet cicely.

MYRSINELÆ'UM. The oil of myrtle.

MYRTA'CEÆ. The myrtle tribe of dicotyledonous plants.

MYR'TIFORM. *Myrtiformis;* from *myrtus*, a myrtle, and *forma*, shape. Having the figure of a leaf of myrtle.

MYRTLE. Myrtus.

MYRTLE, DUTCH. Myrica gale.

MYRTON. The clitoris.

MYR'TUS. The name of a genus of plants. Myrtle.

MYRTUS CARYOPHYLLA'TA. The tree which affords the clove bark.

MYRTUS COMMUNIS. The common myrtle.

MYRTUS PIMEN'TA. The tree which bears the Jamaica pepper, or allspice.

MYSTAX. The mustache. Also, the upper lip.

MYT'ILUS. The name of a genus of shell fish.

MYTILUS EDU'LIS. The edible muscle.

MYXA. Mucus.

MYXOSARCO'MA. A tumor of a fleshy and mucous consistence.

MYX'TER. *Myxoter.* The nose.

MYZE'SIS. Sucking.

N.

N. In *Prescriptions*, a contraction for *numero*, in number.

NABOTH'S GLANDS. *Nabothi glandulæ*. The small mucous follicles situated in the inner surface of the cervex uteri.

NA'CREOUS. A term applied, in *Zoology*, to the surface of a shell or other part which has a pearly appearance or reflects iridescent light.

NA'CRITE. A mineral of a pearly lustre, found in crystallized granite. It is a silicate of alumina and potassa.

NÆ'VUS. *Nævus maternus*. Mother's-mark. A mark, or spot on the skin of children when born, presenting a variety of appearances.

NAIL. *Unguis*. A thin, whitish transparent, horny laminæ situated at the extremities of the fingers and toes.

NA'IS. From ναιας, a naiad. A term applied to a genus of red-blooded worms, capable of reproducing parts of the body when mutilated, and of procreating their kind by the separation of the hinder segments of the trunk.

NAJA. The name of a genus of venomous Asiatic serpents.

NANUS. A dwarf.

NAPE OF THE NECK. Nucha.

NAPHÆ FLORES. Orange flowers.

NAPHTHA. A bituminous, limpid, oily liquid, of a yellowish color, and smell, somewhat resembling that of oil of turpentine.

Naphtha Vitrioli. Æther sulphuricus.

NAPHTHALINE. A whitish, shining, concrete, crystalline substance, found during the rectification of the petroleum of the coal-gas works, incrusting the pipes.

NAPIUM. Dock-cresses.

NAPUS DULCIS. The turnip.

NARCAPH'THON. The bark of an aromatic tree of India.

NARCIS'SUS. The name of a genus of plants.

Narcissus Pseudonarcissus. Common daffodil.

NARCO'SIS. *Narcotism*; from ναρκοω, I benumb. The effects produced by a narcotic.

NARCOT'IC. *Narcoticus*; from ναροω, I stupefy. A medicine which has the property of stupefying, or diminishing the energy of the nervous system, as opium, stramonium, &c.

NAR'COTINE. *Narcotina*. A vegetable alkali, discovered by Derosne, in opium. It posseses the stupefying properties of opium.

NARCOTISM. Narcosis.

NARD, CELTIC. Valerian celtica.

Nard, Indian. Nardus Indica.

Nard of the ancients. Spikenard.

NARES. The nostrils.

Nares, Posterior. Two large openings at the upper and anterior part of the pharynx, terminations of the nasal cavities posteriorly.

NASAL. *Nasalis*; from *nasus*, the nose. Relating to the nose.

Nasal Artery. A branch of the opthalmic artery, which passes by the root of the nose and anastomoses with the last branch of the facial artery. The spheno-palatine artery has also received this name.

Nasal Bones. *Ossa nasi*. The two bones of the nose.

Nasal Fossæ. The two cavities of the nose.

Nasal Nerve. A branch of the opthalmic nerve, which passes forward, crosses the optic nerve and enters the anterior ethmoidal foramen, traversing the ethmoid bone, to the cribriform plate, then passing down by the side of the crista galli into the nose, where it divides into two branches, an internal and external.

Nasal Spines. The *superior* occupies the centre of the nasal notch of the os frontis; the inferior is situated at the inferior part of the nasal fossæ, and the *posterior* is formed by the union of the two palate bones, and is situated at the posterior part of the palatine arch.

NASALIS LABII SUPERIORIS. The orbicularis oris.

NAS'CENT. From *nascor*, to be born. The act of being developed. In *Chemistry*, the act of being produced or evolved, as a gas.

NASI OSSA. The two bones of the nose.

NASMYTH, ALEXANDER. Historical Introduction to the Anatomy, Physiology and Diseases of the Teeth, by. London, 1839. In this work the science and art of dental surgery from the earliest period of which we have any account of their existence, down to the time of its publication, is traced with an accuracy of detail which at once stamps the author as a mNear-€ extensive research and high scientific and literary attainments. It is a most valuable and highly interesting contribution to the literature of dental science. Mr. Nasmyth, is also author of three memoirs on the Development and Structure of the Teeth and Epithelium—a work characterized by an equal degree of ability and scientific research.

NASO-PAL'ATINE. Belonging to the nose and velum palati.

Naso-Palatine Ganglion. A small ganglion situated in the anterior palatine foramen.

Naso-Palatine Nerve. A small branch of the spheno-palatine, proceeding from the ganglion of Meckel.

NASTUR'TIUM. The name of a genus of plants.

Nasturtium Aquaticum. The water cress.

Nasturtium Hortense. Dittander.

Nasturtium Indicum. The greater Indian cress.

NASUM DILATANS. The pyrimidalis nasi.

NASUS. The nose.

NATA'TION. Swimming.

NA'TATORY. A term applied, in *Zoology*, to an animal or part formed for swimming.

NATES. The buttocks. Also, the tubercula quadrigemina are so called from their resemblance.

Nates Cerebri. The tubercula quadrigemina.

NAVEL. Umbilicus.

NATRON. Soda. Also, the impure subcarbonate of soda.

Natron Muriatum. Muriate of soda.

Natron Præparatum. Subcarbonate of soda.

Natron Tartarisatum. Soda tartarizata.

Natron Vitriolatum. Sulphate of soda.

NATURAL. Pertaining to nature.

NATURALIA. The genital organs.

NAU'SEA. An indication to vomit.

Nausea Marina. Sea-sickness.

NAU'SEANT. An agent which causes nausea.

NAVIC'ULAR. *Navicularis*. Scaphoid; boat-like.

NAVICULARE OS. A bone of the tarsus is so named from its fancied resemblance to a boat.

NAVIFORMIS. Navicular.

NEAR-SIGHTEDNESS. Myopia.

NEB'ULA. A speck on, or superficial opacity of, the cornea. Also, a mist, or cloud-like appearance in the urine.

NECK, DERBYSHIRE. Bronchocele.

Neck, Stiff. Torticollis.

NECRÆ'MIA. From νεκρος, death, and αιμα, blood. Death beginning with the blood, or by the destruction of its vital condition.

NECRODES. Cadaverous.

NECROL'OGY. From νεκροω, dead, and λογος, a discourse. A register of deaths; a discourse on death.

NECROPHOBIA. Morbid dread of death.

NECROPNEUMO'NIA. Gangrene of the lungs.

NECRO'SIS. From νεκρω, I kill. Mortification. Death of a bone, or portion of a bone.

Necrosis of the Alveoli. When any portion of the alveoli is deprived of vitality it becomes a source of irritation to the living parts with which it is connected, and an effort is immediately made by the economy to remove it; the necrosed part is separated from the living, and is thrown off by exfoliation. Although the alveolar processes, like other bone, are endowed with blood-vessels and nerves, their recuperative powers are weaker, and hence, when deprived of a portion of substance, by necrosis and exfoliation, or other cause, the injury which they thus sustain, is not, as is often the case in other parts of the osseous system, repaired by the restorative efforts of nature.

Necrosis and exfoliation of the alveolar processes is always accompanied by a discharge of fetid, ichorous matter, and as the diseased action progresses, the gums become spongy, separate from the alveoli, and assume a dark purple color.

Cases have occurred in which the entire alveolar border has become necrosed and exfoliated, but more frequently, the necrosis is confined to the sockets of one, two, three or four teeth. Several examples of necrosis of the sockets of several teeth have fallen under the observation of the author, and one of the whole of the lower jaw.

The cause of necrosis of the alveolar processes is inflammation and the death of the periosteum, occasioned, in the majority of cases, by dental irritation, though it often results from the immoderate and protracted use of mercurial medicines, and sometimes, it is induced by ulceration of the gums.

With regard to the treatment most proper to be pursued, the most that can be done, is, to remove the dead portions of bone, as they become separated from the living, which may be done with a pair of forceps. The mouth should be frequently washed with a solution of chloride of soda for the purpose of correcting the fetor arising from the matter which is almost constantly discharged.

Necrosis of the Teeth. By the term necrosis, when applied to the teeth, is meant the entire death of the crown of one or more of these organs. It is a disease common to all bones, and is similar to mortification in a soft part.

When it affects other bones than the teeth, the dead part is thrown off, and the loss repaired by the formation of new bone. But, when it attacks the teeth, there is no such restoration. These organs, as has been shown in another place, are not endowed with recuperative powers. And, even if they were, necrosis would still forever deprive them of vitality, because they are generally affected by it throughout nearly their whole substance at once.

It does not in the least affect their density, but it produces so great a change in their appearance, that a tooth thus affected, may be readily detected by the most casual observer. It causes them to assume a dark brown, bluish or dingy hue, and this change is more striking in teeth that are soft, than in those that are hard. It is also more marked in those that have been suddenly deprived of vitality from a blow, than in those which have lost their vitality in a more gradual manner.

The front teeth, from their being more exposed to injuries from blows, are more liable to necrosis than those that are farther back in the mouth. It is also more frequently met with in sound teeth, than in those that are decaying. This fact may appear strange, yet we think it capable of satisfactory explanation.

It has been before shown, that soft teeth are more liberally supplied with blood vessels, nerves, &c., and are more easily acted upon by external agents, than those that are hard. Hence it will

be seen, that if soft teeth, on account of their higher organization, are more susceptible to the action of corroding agents, they are, also, for the same reason, less liable to be deprived of their vitality.

Necrosis of the teeth may be produced by a variety of causes, such as protracted fevers, the immoderate exhibition of mercurial medicines, and by caries. The immediate cause, however, in all cases in which it is not occasioned by a blow, sufficiently violent to destroy, at once, the vascular connection of the tooth with the rest of the system, is inflammation and suppuration of the lining membrane.

When once the vascular connection of a tooth with the rest of the system is destroyed, it becomes an extraneous body—inflammation of the socket ensues, and the gum becomes turgid and spongy, and generally bleeds from the slightest touch. The tooth, as the alveolus is wasted, becomes loosened, matter is discharged at different openings, through the gums, or at their edges, the root assumes a dark brown color, and has a rough eroded appearance. A morbid action is also often imparted to the contiguous parts. The sockets of the adjacent teeth are frequently destroyed, the teeth loosened, and the gums swell and become spongy.

We have, in some instances, known teeth to remain firmly fixed in their sockets for years, after having been deprived of their vitality, without producing any very unpleasant consequences. Cases of this sort, however, are of so rare occurrence, especially with the molares and bicuspides, that we are disposed to believe, that in such instances, there is always a low degree of vitality kept up by the periosteum of the fangs, after the suppuration of the internal membrane. This hypothesis appears the more probable, when we reflect, that something of the same sort often happens in the roots of teeth long after the destruction of their crowns.

When a tooth, deprived of its vitality, is found to be productive of injury to the gums and to the adjacent teeth, it should be immediately removed; for, however important or valuable its presence may be, the health and durability of the others should not be jeopardized by its retention.

If a necrosis of one or more of these organs is apprehended, we should endeavor, by the application of leeches to the gums, and gargling the mouth with suitable astringents, to prevent its occurrence. When this plan of treatment is adopted at an early period, it will often prove successful; but, if it be long neglected, no favorable result can be anticipated from it.

NECROT'OMY. Dissection.

NECTAR. A name given to many drinks, and particularly to wine sweetened with honey.

NEDHEART. Upon the Affections of the Teeth. London.

NEDY'IA. The intestines.

NEDYS. The abdomen.

NEEDLE. In surgery, a round, flat, or triangular, straight or curved, sharp pointed instrument, and most commonly with an eye at, or near, one extremity.

Needle, Acupuncture. A gold or silver, sharp pointed, inflexible instrument, four inches long, of a conical shape, furnished with a handle, and sometimes with a canula.

Needle Carrier. A pair of small forceps, called *porte aiguille.*

Needle, Cataract. A delicate knife attached to a handle, used for the purpose of depressing or cutting up the lens in cataract.

Needle, Hare-Lip. A gold or silver pin, with a movable steel point.

Needle, Seton. A long, narrow, steel instrument, pointed and sharp at one extremity, and pierced at the other.

Needle, Suture. A curved, and nearly flat needle, with two cutting edges, pointed and sharp at one extremity, and pierced at the other.

NEFREN'DES. *Odontia edentula.* Persons without teeth.

NEGRO. From *niger*, black. A native or descendant of the black race of men in Africa.

NEMATOI'DEA. *Nematoideans;* from νημα, a filament, and ειδος, form. The name of an order of *cœlelmintha*, or intestinal worms, characterized by a long, slender, filiform body.

NEMATONEU'RA. From νημα, and νευρον, nerve. That division of *radiata*, of *Cuvier*, whose nervous system is filamentary, as the star-fish.

NE'OPLASTY. From νεος, new, and πλασσω, I form. The formation of new parts, either by granulation, adhesion, autoplasty, or cicatrization.

NEP. Nepeta cataria.

NEP'ETA CATA'RIA. The nep, or cat-mint.

NEPHRAL'GIA. From νεφρος, a kidney, and αλγος, pain. Pain in the kidney.

NEPHRELMIN'TIC. *Nephrelminticus;* from νεφρος, a kidney and ελμινς, a worm. A term applied to diseases which result from the presence of worms in the kidney.

NEPHREMPHRAX'IS. From νεφρος, the kidney, and εμφρασσω, I obstruct. Obstruction of the kidneys.

NEPHRIT'IC. *Nephriticus;* from νεφρος, a kidney. Relating to the kidneys.

NEPHRIT'ICA. Medicines employed in the treatment of diseases of the kidneys.

NEPHRI'TIS. From νεφρος, a kidney, and *itis*, signifying inflammation. Inflammation of the kidneys.

NEPHRITIS ALBUMINOSA. Bright's disease of the kidney.

NEPHROCE'LE. From νεφρος, a kidney, and κηλη, hernia. Hernia of the kidney.

NEPHRODIUM FILIX MAS.—The male fern.

NEPHROHÆ'MIA. From νεφρος, a kidney, and αιμα, blood. Congestion of the kidney.

NEPHROLITHI'ASIS. From νεφρος, a kidney, and λιθος, a stone. A calculus disease of the kidneys.

NEPHROLITH'IC. Relating to calculi in the kidneys.

NEPHROL'OGY. *Nephrologia;* from νεφρος, a kidney, and λογος, a discourse. A treatise on the kidneys.

NEPHRON'CUS. From νεφρος, kidney, and ογκος, a swelling. Tumefaction of the kidney.

NEPHROPYO'SIS. From νεφρος, a kidney, and πυον, pus. Suppuration of the kidney.

NEPHROS. The kidney.

NEPHRO-SPASTIC. *Nephro-spasticus.* A term applied to a variety of ischuria.

NEPHROT'OMY. *Nephrotomia;* from νεφρος, a kidney, and τεμνειν, to cut. The operation for the removal of a stone from the kidney. Also, the dissection of the kidney.

NE'RIUM. The name of a genus of plants.

NERIUM ANTIDYSENTER'ICUM. The tree which affords the codaga pala bark.

NERIUM OLEAN'DER. The rose bay.

NERIUM TINCTORIUM. The Hindostan tree which affords indigo.

NEROLI OLEUM. The essential oil of orange flowers.

NERVALIS. Nervous.

NERVE. *Nervus;* νευρον. A white cord, composed of a substance similar to that of the brain and spinal marrow, enveloped in a sheath. The nerves are the organs which transmit sensation and motive power, to and from the brain, or nervous centre or centres, to every part of the body.

TABLE OF NERVES.

The nerves of the body are divided into the *cranial*, *spinal* and *sympathetic*.

The following classification is taken from Wilson's Anatomy:

I. *Cranial Nerves.*

These, counting from before backwards, are:

1. The *olfactory*.

2. The *optic*.
3. *Motores oculorum*.
4. *Pathetici*, (trochleares.)
5. *Trifacial*, (trigemini.)
6. *Abducentes*, (motores externi.)
7. *Facial*, (portio dura.) *Auditory*, (portio mollis.)
8. *Pneumogastric*, (vagus, par vagum.) *Glosso-pharyngeal*, (spinal accessory.)
9. *Hypo-glossal*, (lingual.)

Functionally or physiologically arranged, they are as follows:

Nerves of—

1. *Special sense.*
   1. *Olfactory.*
   2. *Optic.*
   7. *Auditory.*
2. *Motion.*
   3. *Motores oculorum.*
   6. *Abducentes*, (motores externi.)
   9. *Hypo-glossal.*
3. *Respiration*, (Bell.)
   4. *Pathetici.*
   7. *Facial.*
   8. *Glosso-pharyngeal*, *pneumogastric* and *spinal accessory.*
4. *Spinal.*
5. *Trifacial.*

II. *Spinal Nerves.*

These are divided into:

1. The *Cervical*, 8 pair.
2. The *Dorsal*, 12 "
3. The *Lumbar*, 5 "
4. The *Sacral*, 6 "

Making, in all, thirty-one pair, each of which arises by two roots, an anterior or motor root, and a posterior or sensitive root. The anterior roots arise from the anterior columns of the spinal cord, and the posterior, from the posterior columns of the same cord. These latter are larger, and their filaments of origin more numerous than the anterior.

In the intervertebral foramina, a ganglion is found on each of the posterior roots. The first cervical nerve seems to be an exception, as its posterior root is smaller than the anterior, and is, frequently, without a ganglion, and often joins the spinal accessory. The anterior branches, excepting the two first cervical, are larger than the posterior, and supply the front half of the body, while the posterior supply the posterior half.

III. *Sympathetic Nerves.*

This system of nerves are called *sympathetic*, from their communicating with all the nerves of the body, and supplying all the various organs and viscera; and *ganglionic*, from possessing numerous ganglia. It has also been styled *automatic*, or the original and self-moving system of nerves. This system is situated on each side of the vertebral column, extending from the head to the coccyx, and is seen to consist of a series of ganglia or knots, giving off an immense number of branches, forming various plexuses, which pursue the course of the arteries, and have the same name.

The head has six ganglia. The neck three. The back twelve. The lumbar region four. And the sacral four or five.

Cranial ganglia:

1. *Ganglion of Ribes* is small, and situated on the anterior communicating artery of the brain.

2. *Ciliary* or *lenticular ganglion*, is also small, and situated within the orbit, between the optic nerve and the external rectus muscle, surrounded by a quantity of fat.

3. *Naso-palatine*, or *ganglion* of *Cloquet*, is situated in the naso-palatine canal, and is a small, though lengthened body.

4. *Spheno-palatine*, or *ganglion* of *Meckel*, is situated in the spheno-maxillary fossa, and is the largest of the cranial ganglia.

5. *Sub-maxillary ganglion*, is small, and situated in the sub-maxillary gland.

6. *Otic ganglion*, or *ganglion* of *Arnold*, is situated directly below the foramen ovale, and rests against the inferior maxillary nerve. It is described as a small, red body. All these ganglia give off branches supplying the eye, the ear, the nose, the palate, and

communicating with the other nerves. A plexus is formed in the carotid canal, called *carotid plexus*, which is regarded as the centre of communication between all the cranial ganglia.

Cervical ganglia:

1. *Superior cervical ganglion*, is situated at the superior part of the neck, in front of the rectus anticus major muscle, as low down as the third cervical vertebral, and is long, of a grayish color, and smooth.

2. *Middle cervical ganglion*, is situated opposite the fifth cervical vertebral, and is sometimes wanting.

3. *Inferior cervical ganglion*, is situated as low down as the seventh cervical vertebral, and is called the vertebral ganglion. It is large in size compared with the middle.

From these cervical ganglia, the cardiac nerves proceed, and constitute the cardiac plexus, which is situated behind the arch of the aorta, at the bifurcation of the trachea, and goes to supply the heart.

Thoracic ganglia:

The thoracic ganglia are situated upon the heads of the ribs, covered by the pleura costalis, are twelve in number on each side, and are irregular in their form.

The inferior of these ganglia, beginning at the sixth, send off the great and lesser splanchnic nerves, which descend below the diaphragm, the former to terminate in the semi-lunar ganglion, the latter in the renal plexus.

The *semi-lunar ganglion*, is situated at the side of the cœliac axis, and consists of a number of small ganglia, presenting a semi-lunar form, and sending off numerous branches, like the radii of a circle, receives the name of *solar plexus*. This plexus receiving the splanchnic nerves, and branches from the phrenic; and the pneumogastric sends off a multitude of filaments, called *plexuses*, upon all the branches of the abdominal aorta, and having the same names as the arteries.

These plexuses are as follows:

1. *Phrenic plexus.*
2. *Gastric.*
3. *Hepatic.*
4. *Splenic.*
5. *Supra-renal.*
6. *Renal.*
7. *Superior mesenteric.*
8. *Spermatic.*
9. *Inferior mesenteric plexus.*

Lumbar ganglia:

These ganglia are four in number, and situated upon the anterior portion of the lumbar vertebral.

They send off branches upon the aorta, called the *aortic plexus*, which also receives filaments from the solar and superior mesenteric plexuses.

The *hypogastric plexus*, is situated between the two common iliac arteries, over the promontory of the sacrum, and is formed from the aortic plexus, and branches from the inferior lumbar ganglia.

Sacral ganglia:

The sacral ganglia, are smaller than the last, and situated close to the anterior sacral foramina, upon the sacrum on each side. The last of these ganglia is called *ganglion-impar*, or *azygos*. The branches communicate freely with the hypogastric plexus.

NERVELESS. Enervis.

NER'VINE. *Nervinus;* from *nervus*, a nerve. Neurotic. A medicine which relieves disorders of the nerves.

NER'VOUS. *Nervosus.* Belonging, or relating, to the nerves.

Nervous Attack. An affection attended with pain, spasms, rheumatism, and other nervous symptoms.

Nervous Centres. The brain, spinal marrow, and ganglions.

Nervous Diathesis. That disposition of body which predisposes to nervous diseases.

Nervous Diseases. Diseases which have their seat in the nervous system.

Nervous Fever. Typhus nervosus.

Nervous Fluid. A fluid supposed to circulate through the nerves, and

which has been thought to be the agent of sensation and motive power.

NERVOUS MATTER. The matter which composes the nerves; it resembles that of the brain and spinal marrow.

NERVOUS SYSTEM. The nerves, collectively, of the body.

NERVU'RES. In *Entomology*, the delicate framework of the membranous wings of insects. In *Botany*, the veins of a leaf.

NER'VUS A nerve.

NERVUS SYMPATHETICUS MEDIUS. The fifth pair of nerves.

NES'TIS. The jejunum.

NETTLE-RASH. Urticaria.

NEURAL'GIA. From νευρον, a nerve, and αλγος, pain. Literally, pain in a nerve. A painful affection of the nerves. The particular designation of neuralgia is determined by the situation of the affection, as *neuralgia faciei*, or *tic douloureux*, when it affects the branches of the fifth pair of nerves, &c.

NEURALGIA CUBITO-DIGITALIS. Pain extending from the inner condyle to the back of the hand.

NEURALGIA DENTALIS. See Odontalgia.

NEURALGIA FACIEI. Neuralgia of the face. Tic douloureux. An affection characterized by acute lancinating pains in certain parts of the face, occurring at more or less irregular intervals. It is sometimes dependent upon constitutional causes, but more frequently upon local irritation, produced by one or more decayed, dead or loose teeth, or by disease in the gums and alveolar processes. In the former case the treatment should be constitutional, and in the latter, local, and consist in the removal of such irritants as may have been concerned in its production. See Odontalgia.

NEURALGIA, FEMORO-POPLITEAL.—Sciatica.

NEURALGIA OF THE HEART. Angina pectoris.

NEURASTHENI'A. From νευρον, a nerve, and ασθενια, debility. Debility of the nerves. Irritability.

NEURILEM'MA From νευρον, a nerve, and λεμμα, the bark or covering. The transparent membranous sheath which covers the nerves.

NEURILEMMI'TIS. *Neurilemmatitis;* from νευρον, a nerve, λεμμα, the coat, and *itis*, signifying inflammation. Inflammation of the neurilemma.

NEURINE. The substance of which a nerve is composed.

NEURITIC. Nervine.

NEURI'TIS. Inflammation of a nerve.

NEUROBLACI'A. From νευρον, a nerve, and βλαχεια, stupor. Insensibility in a nerve.

NEURODYN'IA. Neuralgia.

NEUROG'RAPHY. *Neurographia;* from νευρον, a nerve, and γραφη, a description. Neurology. A treatise on the nerves.

NEUROL'OGY. *Neurologia;* from νευρον, a nerve, and λογος, a discourse. A treatise on the nerves.

NEURO'MA. From νευρον, a nerve. A morbid enlargement or swelling of, or painful tumor on, a nerve.

NEURON. A nerve.

NEURO'SES. Nervous diseases, constituting the second class in the nosology of Cullen, and the fourth in that of Pinel.

NEUROSTHENI'A. From νευρον, a nerve, and σθενος, force. Excess of nervous excitation. Nervous irritation.

NEUROT'ICA. Diseases of the nervous system. Also, nervine medicines.

NEUROT'OMY. *Neurotomia;*—from νευρον, a nerve, and τεμνω, I cut. Dissection of the nerves, or division of a nerve.

NEUTRAL. *Neutralis;* from *neuter*, neither. In *Chemistry*, saline compounds, which possess neither the characters of an acid nor alkali.

NEUTRALIZA'TION. In *Chemistry*, the combination of acid and alkaline matter in such proportion that the

compound will not change the color of litmus or violets.

NI. Nickle.

NICARAGUA WOOD. Cæsalpina echinata wood.

NICHOLLES, JOHN. The Teeth in relation to Beauty, Voice and Health, being the result of twenty years' practical experience and assiduous study to produce the full development and perfect regularity of those essential organs, by. London, 1833.

NICKEL. A whitish, malleable, and ductile metal.

NICOLAI. Dissertation on the various Affections of the Teeth, and their nourishment in health, by. Jena, 1799.

NICOTIANA. So called from Nicot, who carried it to Europe. Tobacco. Also, the name of a genus of plants.

Nicotiana Americana. *Nicotiana tabacum.* Virginia tobacco.

Nicotiana Minor. *Nicotiana rustica.* Green tobacco.

NICTA'TION, or NICTITA'TION. *Nictitatio;* from *nictare,* to wink. Rapid winking of the eyelids.

NIGEL'LA. The name of a genus of plants.

Nigella Sativa. Fennel flower; nutmeg flower; devil-in-a-bush.

NIGER. Black.

NIGHT BLINDNESS. Hemeralopia.

NIGHTMARE. Incubus.

NIGHTSHADE, AMERICAN.—Phytolacca decandria.

Nightshade, Deadly. Atropa belladonna.

Nightshade, Palestine. Solanum sanctum.

Nightshade, Woody. Solanum dulcamara.

NIGRITA. Negro.

NIGRITIES OSSIUM. Literally, a blackness of the bones. Caries.

NIMMO'S ODONTALGIC MIXTURE. ℞.—Mistur, camphor, ʒ vi; tinct. opii, gtts. xxxvi; vin. tart. antimon. gtts. xvi.

NIPPLE. A small conical protuberance at the centre of the breast.

NIPPLE-WORT. Lapsana.

NISUS. Effort, straining; a voluntary retention of the breath.

Nisus Formativus. Formative effort; vital activity; plastic force.

NITRAS. A nitrate. Nitric acid with a salifiable base.

Nitras Ammoniæ. Nitrate of ammonia.

Nitras Argenti. Nitrate of silver.

Nitras Calcis. Nitrate of lime.

Nitras Potassæ. Nitre. Nitrate of potash.

Nitras Potassæ Fusus. Nitrate of potash, containing a little sulphuric acid.

Nitras Sodæ. Nitrate of soda.

NITRATE. Nitras.

Nitrate of Potash. Nitras potassæ.

Nitrate of Silver. Nitras argenti.

NITRE. Nitrate of potash. Saltpetre.

NITRIC. Of, or belonging to, nitre.

Nitric Acid. *Acidum nitricum.*—Aquafortis. A colorless fluid, of a suffocating pungent odor, acid taste, and extremely caustic. It is obtained by the action of sulphuric acid and heat on nitrate of potash or soda.

NI'TROGEN. From νιτρον, nitre, and γενναω, to produce. Azote. An elementary, irrespirable, colorless gas, incapable of supporting combustion, and forming four-fifths of the atmosphere.

Nitrogen, Gaseous Oxyd of. See Nitrous Oxyd.

NITRO-MURIATIC ACID. *Acidum nitro-muriaticum.* Nitro-hydrochloric acid. Aqua regia. A mixture of nitric and muriatic acids. Chlorine is evolved by this mixture, and it is probably owing to this, that gold is readily dissolved by it.

NI'TROUS. *Nitrosus.* Of, or belonging to, nitre, or its combinations.

Nitrous Acid. *Acidum nitrosum.* The red fumes emitted by exposing binoxyd of nitrogen and oxygen, which, when condensed, is a colorless fluid.

NITROUS OXYD. Protoxyd of nitrogen. Intoxicating gas. Laughing gas.

NITRUM. Nitre.

NITRUM FLAMMANS. Nitrate of ammonia.

NITRUM PURIFICA'TUM. Purified nitre.

NITRUM VITRIOLATUM. Sulphate of potash.

NOBILIS. Noble; principal; essential.

NOCTAMBULA'TION. *Noctambulatio;* from *nox*, night, and *ambulo*, to walk. Somnambulism. Sleep-walking.

NOCTURNAL BLINDNESS. See Hemeralopia.

NODE. *Nodus.* A hard tumor, proceeding from a bone, and caused by a thickening of the periosteum. Also, a calcareous concretion formed around articulations which have been the seat of rheumatism or gout. In *Botany*, the elevations observed in the stems of grasses.

NODO'SUS. Knotty.

NODULE. From *nodus*, a knot. A little knot-like eminence.

NODULUS. A little node.

NODUS CEREBRI. The pons varolii.

NOLI ME TANGERE. In *Botany*, the name of a plant, which, like *momordica balsamina*, when ripe, on being touched, discharges its seeds from its capsule with considerable force. In *Surgery*, a species of malignant herpes, affecting the skin, and sometimes, the cartilage of the nose. The disease is often of a very malignant character, and the nose is sometimes destroyed by it.

NOMA. Cancer aquaticus.

NO'MENCLATURE. *Nomenclatura;* from ονομα, name, and καλεω, I call. The words peculiar to a science or art; the technical terms of any particular art or science.

NON-NAT'URALS. *Non-naturalia.* The ancient physicians comprehended under this term, air, meat and drink, sleep and watching, motion and rest, the retentions and excretions, and the affections of the mind.

NOR'MAL. From *norma*, a rule. According to an established law, rule or principle.

NORTON, C. L. Author of a paper on the Use of Arsenious Acid in the treatment of Carious Teeth, published in the fourth volume of the American Journal of Dental Science.

NOSE. Nasus.

NOSE, ARTIFICIAL. See Artificial Nose.

NOSE, BLEEDING OF THE. Epistaxis.

NOSE, RUNNING AT THE. Coryza.

NOSEROS. Insalubrious.

NOSOCOMI'UM. From νοσος, a disease, and κομεω, to take care of. An infirmary or hospital.

NOSOG'ENY. *Nosogenia;* from νοσος, a disease, and γενος, origin. The origin of disease.

NOSOG'RAPHY. *Nosographia;* from νοσος, a disease, and γραφω, I describe. A description of diseases.

NOSOL'OGY. *Nosologia;* from νοσος, a disease, and λογος, a discourse. That department of medical science which treats of the classification of diseases.

NOSON'OMY. *Nosonomia;* from νοσος, disease, and ονομα, name. The nomenclature of diseases.

NOSOS. Disease.

NOSTAL'GIA. From νοστος, a return, and αλγος, pain. Melancholy, loss of appetite, &c. occasioned by the desire of returning to one's country.

NOSTOMA'NIA. Nostalgia, madness of.

NOSTRILS. Nares.

NOS'TRUM. From *noster*, ours. A medicine the ingredients of which are kept secret for the purpose of securing to the proprietor the profits arising from the same; a private or quack medicine.

NOTAL. From νοτος, the back. Belonging to the back.

NOTAL'GIA. Pain in the back.

NOTCH. A depression or indentation observed on the margin of a bone.

NOTCH, ETHMOID'AL. The depres-

sion in the frontal bone which receives the superior part of the ethmoid bone.

Notches, Ischiat'ic. These are two in number. The first, which is the largest, is situated at the inferior part of the pelvis, gives passage to the sciatic nerve, pyramidalis muscle, and to the superior gluteal vessels and nerves. The other gives passage to the tendon of the obturator internus, and to the internal pudiac vessels and nerves.

Notch, Parot'id. The triangular space between the parotid edge of the lower jaw and mastoid process, and in which the parotid gland is lodged.

NO'THUS. False; spurious.

NU'CHA. *Mucha capitis.* The nape of the neck, the part where the medulla spinalis begins.

NUCLEATED CELL. The cell formed in a primary granule, (cytoblast, or nucleus.) See Cytoblast.

NU'CLEUS. From *nux*, a nut. Literally, a kernel or nut. The centre of any body, the part about which matter collects. In *Animal* and *Vegetable Physiology*, a primary granule, or cytoblast. See Cytoblast.

Nucleus Germinativus. The germinal spot in the germinal vesicle of the ovum.

NU'CULA. A little nut.

NUDIBRACHIATE. From *nudus*, naked, and *brachia*, arms. The polypus whose arms are not clothed with vibratile cilia.

NUDIBRAN'CHIATA. From *nudus*, naked, and *branchia*, gills. Nudibranchians. A term applied to an order of *gasteropods* in which the gills are exposed.

NU'DUS. Naked.

NURSE. One who suckles her own child or another's. One who has the care of a sick person.

NUT. Nux.

NUTA'TION. Constant involuntary movement of the head.

NUTMEG. Myristica moschata.

NUTRIT'ION. *Nutritio*; from *nutrire*, to nourish. The reparation of the molecular changes and decompositions of the body; the function by which the elaborated nutritive matter loses its own nature, and assumes that of the different living tissues.

Nutrition, Force of. Plastic force.

NUTRI'TIOUS. *Nutritio.* Nutritive; nourishing; capable of sustaining life.

NUTRITIVE CENTRE. A cell from which a succession of cellules originate.

NUTRITUS. Aliment.

NUX. A fruit with a hard shell.

Nux Aquatica. Trapa natans.

Nux Aromatica. Myristica moschata.

Nux Barbadensis. Jatropha curcas.

Nux Cathartica. Jatropha curcas.

Nux Metella. Strychnos nux vomica.

Nux Pistacia. Pistacia vera.

Nux Serapionis. Ignatia amara.

Nux Vomica. Nux cathartica.

NYCTALO'PIA. From νυξ, night, and οπτομαι, I see. A defect of vision, which renders a person incapable of seeing by day, and of discerning objects distinctly at night.

NYC'TALOPS. One affected with nyctalopia.

NYCTHE'MERUM. From νυξ, night, and ημερα, a day. Twenty-four hours, or a day and a night.

NYCTO'BASIS. Somnambulism.

NYMPHA. From νυμφα, a water nymph. A membranous fold arising from the lateral part of the prepuce of the clitoris, within the external labia of the female parts of generation on each side.

NYMPHÆ'A. The name of a genus of plants.

Nymphæa Alba. The white-water-lily.

Nymphæa Glandifera. Nymphæa nelumbo.

Nymphæa Lutea. The yellow water lily.

Nymphæa Nelum'bo. The pontic, or Egyptian bean.

NYMPHÆA ODORA'TA. The sweet-scented water-lily.

NYMPHOMA'NIA. From *νυμφη*, a bride, and *μανια*, madness. *Furor uterinus.* An irresistible desire for coition in females, particularly those of a nervous temperament, and is supposed to be caused by preternatural irritability of the uterus, nymphæ and clitoris, or unusual acrimony of the secretions in these parts.

NYMPHON'CUS. From *νυμφη*, the nympha, and *ογκος*, a tumor. Tumefaction of the nymphæ.

NYMPHOT'OMY. *Nymphotomia;* from *νυμφη*, and *τεμνειν*, to cut. The operation for the removal of the nymphæ, when attacked by scirrhus, cancer, or fungus.

NYSTAG'MUS. Involuntary movement of the eyelids.

O.

OAK TREE. Quercus.

OAK, JERUSALEM. Chenopodium botrys.

OAK, SEA. Fucus vesiculosus.

OAK, LUNGS. Lichen pulmonarius.

OARION'CUS. Ovarian tumor.

OARI'TIS. Inflammation of the ovarium.

OATMEAL. Avenæ farina.

OATS. Avena.

OBELÆ'A. The sagittal suture.

OBE'SITY. *Obesitas;* from *obesus*, fat. Corpulency; fatness.

OBLI'QUUS. Oblique. In *Anatomy*, applied to certain muscles from their direction.

OBLIQUUS EXTERNUS ABDOMINIS. A broad thin muscle of the abdomen.

OBLIQUUS INFERIOR CAPITIS. A muscle of the head.

OBLIQUUS INFERIOR OCULI. A muscle of the eye.

OBLIQUUS INTERNUS ABDOMINIS. A muscle of the abdomen, situated under the *obliquus externus abdominis.*

OBLIQUUS SUPERIOR CAPITIS. A small muscle of the head situated between the occiput and first vertebra of the neck.

OBLIQUUS SUPERIOR OCULI. *Trochlearis.* A muscle of the eye.

OBLITERA'TION. In *Anatomy*, the disappearance of a part that has ceased to be useful, as the ductus venosus, after birth. In *Dental Surgery*, filling the cavity of a carious tooth.

OBLIV'ION. *Oblivio.* Forgetfulness; loss of memory.

OBSERVA'TION. *Observatio.* Act of examining a thing; and, also, the knowledge gained. In *French*, it means *care*, or the history of the phenomena of a disease.

OBSTET'RICS. The art of midwifery.

OBSTIPA'TION. *Obstipatio.* Constipation; costiveness.

OBSTRUC'TION. *Obstructio.* In *Pathology*, the arrest of a function or secretion, by the closure of the parietes of a duct, or by the accumulation of foreign or morbid matter in it.

OBSTRUC'TIO ALVI. Constipation.

OB'STRUENS. From *obstruo*, to shut up. A medicine supposed to have the power of closing the orifices of ducts or vessels.

OBTUN'DENS. *Obtundant;* from *obtundo*, to make blunt. In *Pathology*, medicines supposed to have the power of blunting the acrimony of the humors.

OBTURA'TOR. *Obturatorius;* from

obturare, to close, stop up the entrance. That which closes, or stops up the entrance of any thing.

Obturator Artery. A branch of the hypogastric or epigastric artery, which passes forward a little below the brim of the pelvis and escapes through the obturator foramen.

Obturator Externus. A small, flat muscle, situated at the anterior and upper part of the thigh.

Obturator Fora'men. An opening beneath the horizontal ramus of the os pubis in the anterior part of the os innominatum.

Obturator Internus. A muscle situated almost entirely within the pelvis.

Obturator Ligament. A tendino-fibrous membrane stretched across the obturator foramen.

Obturator Nerve. A nerve formed by a branch of the third and another from the fourth lumbar nerve, and distributed to the muscles on the inside of the thigh.

Obturator, Palatine. An instrument for closing or stopping an opening through the palatine arch. This is an ancient invention. According to *Guillemeau*, they were applied by the Greek physicians, but it is to that celebrated surgeon, *Ambrose Paré*, that we are indebted for the first description of an appliance of this sort. He has also furnished an engraving of an obturator which he had constructed in 1585. The instrument consisted of a metallic plate, probably of silver or gold, fitted to an opening in the vault of the palate, and maintained in place by means of a piece of sponge fastened to a screw in an upright attached to the upper surface of the plate.

The employment of sponge, however, proved objectionable, as it was found that it absorbed the secretion of the nose, and soon became exceedingly offensive. But its use, notwithstanding, was continued for a long time. It was ultimately, however, superseded, by an obturator invented by Fauchard, which was held in place by means of wings, which turned on a pivot. But this was nearly as objectionable as the other. The pressure of the wings, like that of the sponge, upon the surrounding parts, caused them to be gradually destroyed, enlarging the opening, and thus augmenting the evil, consequently, the use of obturators constructed upon this principle, has been abandoned. An appliance of this sort should never, therefore, if it can possibly be avoided, be sustained by means of any fixtures which act upon the lateral parts, as they necessarily tend to increase the dimensions of the opening.

With a view of obviating these objections, Bourdet proposed to employ a simple metallic plate fitted to the vault of the palate and large enough to cover the opening in it, with two lateral prolongations, one on each side, extending to the teeth, to which they were fastened by means of ligatures. This was also found to be objectionable, as the ligatures were productive of constant irritation to the gums, and, besides, they did not hold the plate with sufficient stability, in place. Its use was, therefore, soon abandoned. But these objections were both obviated, by an improvement made by M. Delabarre, which consists in the employment of clasps, instead of ligatures attached to lateral branches of the plate, and to prevent these from slipping too high up upon the teeth, he attached to each, a kind of spur, which was so bent as to come down over the grinding surface of the tooth to which it was applied. The last named author, also made another equally valuable improvement, which consists in the application of a drum, to the upper surface of the plate. The object of this was to prevent the accumulation of mucous fluids from the nose, in the *cul-de-sac*, formed, by simply closing the opening below, and to prevent fluids, in swallowing, from passing up between the obturator and soft parts, through the open-

ing into the nose, which a simple plate fails to do.

The manner of constructing an obturator, with a drum upon its surface, is as follows: first, take an impression of the entire palatine vault and alveolar ridge in wax. From this, a plaster and metallic model and a counter-model are procured, in the manner as before described; a gold plate is then swaged between the two last, a little larger than the opening in the palate, with a broad arm on each side, extending to a bicuspis or molar tooth, to which a broad clasp is fitted. This is soldered to the arm of the plate. Second, an impression of the opening in the vault of the palate with wax, properly softened, and placed upon the upper surface of the palate plate is now taken, using the precaution to prevent forcing it up too far through the aperture; this is next trimmed where it comes in contact with the plate, so that it shall not be quite as large as the opening; it is then covered with plaster, after which, a metallic model and counter-model are taken, then a gold plate is swaged between the two, and this last is fitted and soldered to the palatine plate. The piece is now, after being properly finished, ready to be applied.

But an obturator of this description is seldom required, except in those cases where the opening extends back to the velum, so that by the contraction of its muscles, the parts are raised from the plate in such a manner during deglutition, as to permit fluids to pass up into the nose. In this case it is absolutely necessary, but in fitting and adjusting the drum to the upper surface of the plate, great care is requisite to prevent placing it to one side of the opening. After it has been properly adjusted and one side soldered to the plate, a hole should be drilled through it for the escape of the heated air. The other side may then be soldered, and the hole closed by the introduction of a screw of the same metal. The projecting portion of which should afterwards be filed off.

But when the opening in the palate is small, and has no connection with the velum, it is seldom necessary to raise the upper surface of the plate by attaching a drum or air-chamber to it. If it be accurately fitted to the vault of the palate, it will effectually prevent fluids, in deglutition, from passing up into the nasal cavities, or the escape of any portion of the voice through the opening, and by frequently removing the plate, it will prevent the stagnation of the secretions which may accumulate in the *cul-de-sac*. Although the stability of the plate when applied will depend, in a great degree, upon the width of the clasps, the latter should never be so wide as to press upon the gums around the necks of the teeth to which they are attached, as in that case, they will be productive of irritation, and ultimately cause the destruction of the alveoli and loss of the teeth. Nor should they press upon the teeth so as to force them apart or draw them towards each other, as in either case, the effect would be, gradually to loosen and displace the organs. In short, the same precautions are necessary in the application of clasps to a palate plate, as to one which is to serve as a support for artificial teeth.

The benefit derivable from an artificial obturator will very greatly depend upon the accuracy of its adaptation to the contiguous and surrounding structures, and the perfection of its finish. If it exerts any undue pressure upon them it will be productive of injury and and ultimately fail to accomplish the object for which it was designed. As in the case of a dental substitute, the piece should not be applied while any of the teeth, especially in the upper jaw, are in an unhealthy state. The gums and sockets of the teeth should also be free from disease. The piece, too, should be removed two or three times every day and thoroughly cleansed, as also the teeth to which the clasps are applied.

For a description of the manner of constructing an obturator or palatine plate with an artificial velum, see Artificial Palate.

Obturator and Palate Plates, with Artificial Teeth.—When an imperfection of the palate, whether the result of malformation or accident, is accompanied by the loss of one or more of the teeth, and especially from the anterior part of the mouth, the plate which is employed for remedying the former, should be so constructed as to serve as a base for a substitute for the latter. The idea of complicating a palate plate with artificial teeth, as the author has stated in another place,* originated with Fauchard. When a palatine obturator and artificial teeth are to be applied at the same time, they may be connected, and the piece made to answer an excellent purpose, provided there be healthy natural teeth in the upper jaw to sustain it.

In the construction of an artificial palate or obturator, to which artificial teeth are to be attached, a gold plate of the proper size should be fitted to all that portion of the vault of the palate and alveolar ridge which are to be covered by it, with a lateral branch on each side, extending to the first molaris or the tooth to which it is to be clasped. To these, clasps should be soldered, and afterwards artificial teeth fitted and secured in the manner as described in another article. If, however, the upper surface of the plate is to be surmounted with a drum or air chamber, this should be done before the teeth are attached.

When the teeth have all been lost on one side of the mouth, or are too much decayed to serve as a support for an obturator, either with or without artificial teeth, the plate may be constructed with two branches upon the other side, if there be two healthy and firmly articulated teeth to which clasps can be applied.

The following is the method of procedure adopted by Dr. C. O. Cone, in the construction of an obturator, complicated with three artificial teeth, for a patient introduced into the infirmary of the Baltimore College of Dental Surgery, during the latter part of the session of 1846-7, by Dr. Morison, from the infirmary of the medical department of the University of Maryland.

The opening in the palate was of an elliptical shape, about an inch in length, and six-eighths in width at its widest part. The loss involved a portion of the superior maxillary and palate bones, anterior part of the vomer, and implicating in a downward and backward direction, to a considerable extent, that portion of it which is received into the groove formed by the articulation of the palate processes of the superior maxillary and palate bones, uniting the cavities of the nose and mouth, and almost totally destroying enunciation, and greatly embarrassing deglutition. The whole mucous lining of the mouth was of a deep red, the gums swollen and irritable, the teeth coated with tartar and a slimy mucus. The central incisores and right lateral of the upper jaw were loose, and an ichorous fluid almost constantly discharged from between them and the gums, indicating a diseased condition of their sockets.

It is hardly necessary to state, that the destruction of parts and local manifestations of disease, in this case, were the result of a venereal diathesis of the general system, which had developed itself in the usual manner, producing its various pathological changes, and among them, were those just noticed.

The patient, previously to being introduced into the infirmary of the Baltimore College of Dental Surgery, having been under the influence of appro priate constitutional remedies, it only

* Vide American edition of *Fox on the Human Teeth, with additions by the author*, p. 417.

remained to institute such local treatment as the nâture of the case at this time seemed to demand. The right lateral and superior central incisores were extracted, which opened a free communication through their sockets, between the nose and mouth. The remaining teeth were next freed from all extraneous matter, and such other dental and surgical treatment adopted as the nature of the case seemed to require. In about two months, the teeth, gums, and palate, were restored to health.

Having accomplished this, a correct impression of the superior alveolar ridge, and vault of the palate, was taken in wax. The plaster and metallic models, and counter-models, were then obtained in the usual manner.

A gold plate was now fitted to the opening in the palate; its inferior surface, presenting a large concavity, was filled with wax, so that when placed in the aperture of the palate, the cavity of the mouth should be restored to its natural shape. New models and a counter-model were next obtained, and another plate, thicker than the first, and of greater dimensions, extending anteriorly, to serve as a support for artificial teeth, was next adjusted.

It would seem superfluous to state, that great care was observed in adapting these two plates to each other, and to the parts, so that the pressure should be positively equal. They were adjusted to each other in the mouth, and held together by means of a resinous cement, previously softened; they were now removed, enveloped in plaster and soldered together, leaving an air-tight chamber between the two.

Having proceeded thus far in the construction of the piece, clasps were attached. These were fitted to a molaris on one side, and the two bicuspides on the other. This done, artificial gum teeth, were fitted and attached to the plate in the manner as described in another article. See Mounting Porcelain Teeth upon a Metallic Base.

The author would here refer to an obturator, complicated with artificial teeth, constructed by Mr. Rowell, of New York, and the great difficulty to be overcome in this case, according to the report made of it by Dr. Griscom,* was the want of teeth in the upper jaw to sustain it, and the great size of the opening in the palate, the vomer and turbinated bones having been destroyed.

Upon examination, however, Mr. Rowell found that the posterior portion of the palatine aperture was formed, "to a considerable extent, of a semi-cartilaginous substance, possessing sufficient elasticity to allow a larger body than the opening to be pushed up through it, and that when so forced up, it would be supported above the aperture by the edge retiring to its original position." This, he hoped, would support a light plate, if the obturator could be so shaped as to rest upon the cartilaginous ledge, after it was introduced.

Without quoting the description which is given of his method of procedure, it will be sufficient to state, that the obturator, which he constructed, consisted of a plate larger than the opening in the palate and covering the anterior part of the alveolar ridge, to which artificial teeth were attached, and an irregularly shaped drum or air chamber, larger above than below, where it was connected with the palate plate. The neck of this bulb or drum, is of the exact size of the opening in the palate, and the upper part or summit has several depressions which correspond with the irregular "surfaces of the remaining nasal bones."

The anterior part of the palate plate, to which the teeth are attached, is composed of two plates, "to compensate by its thickness for the deficiency of the alveolar ridge." The drum is seen rising from the palate plate, to which it is soldered.

At the time Mr. Rowell constructed

* Vide *New York Journal of Medicine*, vol. viii, No. 23, p. 187.

this obturator, we are assured by Dr. Griscom, he had never heard nor seen of "Delabarre's proposed operation," so that it would seem that the obturator which he constructed, was original with himself. We are also informed, that it has been worn since 1841, and as yet has not caused any appreciable increase in the size of the opening. That this, however, will ultimately be the case, we think there can be no question. But, Mr. Rowell, nevertheless, is certainly entitled to great credit for the ingenuity and skill he has displayed in contriving and executing a piece of mechanism which has, even for so long a time, restored to his afflicted patient the functions of mastication, deglutition and speech.

Dr. Mütter gives an engraving of an artificial palate, complicated with several artificial teeth, and a metallic velum connected with the palate plate by means of a hinge, constructed by Mr. Neil, a dentist of Philadelphia, which is represented as having answered an excellent purpose.* It is difficult to conceive, however, how a gold plate of an oval shape, could be made to perform the functions of the velum palati. So far as an imperfection in the hard palate is concerned, the evil, we know, may be remedied by covering the opening with a metallic plate, but the loss of the soft palate, cannot be replaced with any hard unyielding material, so as to restore the functions of the natural parts.

Instead, therefore, of employing this complicated instrument, a simple palate plate, raised upon its upper surface, with a velum like the one constructed by Mr. Stearns, with artificial teeth attached to it, would be found to answer a much better purpose, in a case like the one for which M. Delabarre's complicated piece of mechanism was fabricated. As it is not probable that such an appliance will ever be constructed again, we do not deem it necessary even to give a minute description of the instrument. If any of our readers, however, should desire to see it, we would refer them to vol. 2, of Delabarre's Treatise on Mechanical Dentistry, or to the American edition of Fox's Natural History and Diseases of the Teeth,

M. Desirabode proposes a kind of palatine obturator for congenital fissure of the palate, by which he thinks the sides of the alveolar border may be so approximated as to favor the union of the divided parts. It consists of a platina plate fitted to the vault of the palate and fastened to the teeth by means of three crotchets, (clasps,) soldered to each side, so as to cap the canine teeth, the bicuspid, and two of the molar teeth, bent upon the alveolar border, in such a manner as to maintain the whole pressure. After the plate, with these appendages, has been well adapted, it is divided from before backwards along the median line, and then a piece is removed from each side, so that the two edges may be separated about half an inch from each other. The two half plates are now united by means of a thick and resisting band of caoutchouc, made fast by riveting. The plates thus united, form a smaller obturator than the plate before it was divided, so that it can only be applied by putting the caoutchouc upon the stretch, which is effected by means of two stocks, so contrived as to force the two plates asunder. After the plate is properly adjusted, these are removed, when, by the contraction of the caoutchouc, the sides of the alveolar border are gradually approximated.

Other contrivances have been invented for the accomplishment of the end proposed by Desirabode, but have not been found to answer a very good purpose, except when applied to young subjects.

It sometimes happens that an imperfection of the palate is accompanied by an opening into the maxillary sinus.

*Vide *Liston's and Mutter's Surgery.*

In this case, the palatine plate should be large enough to cover both openings, and the loss of the alveolar border replaced by means of a raised plate, soldered to the lower surface of the palate plate, and to which artificial teeth should be applied, or, the deficiency may be supplied with long porcelain gum teeth.

OBTUSE. *Obtusus.* Blunt.

OCCIP'ITAL. *Occipitalis.* Belonging to, or connected with, the occiput.

Occipital Artery. A branch of the external carotid artery distributed to the muscles, &c., of the occiput.

Occipital Bone. *Os occipitis.* One of the bones of the cranium, situated at its posterior and inferior part; convex externally, and concave internally.

Occipital Nerve. A nerve which arises by eight or ten filaments from the upper part of the spinal marrow, passes between the foramen magnum and posterior arch of the atlas, and dividing into an *anterior* and *posterior branch.* The former anastomoses with a branch of the second cervical nerve, and the latter is distributed to the muscles of the upper and back part of the head.

OCCIP'ITO-AT'LOID. That which is connected with the occiput and atlas.

Occipito-Ax'oid. That which is connected with the occiput and axis, or second vertebra.

Occipito-Fronta'lis. A broad, flat muscle, covering the cranium from the occiput to the eyebrows.

OC'CIPUT. The back part of the head.

OCCLU'SION. *Occlusio;* from *occludere,* to shut up. Shutting up, closeing. Also, imperforation.

OC'CULT. *Occultus;* from *ob,* and *celo,* to conceal. Hidden; invisible; secret; undetected.

O'CHRA. Ochre. Also, the shin.

OCHRA'CEUS. Ochre-like.

OCHRE. Argil, colored with oxyd of iron.

OC'IMUM. *Ocymum.* The name of a genus of plants.

Ocimum Basil'icum. The common or citron basil.

Ocimum Caryophylla'tum. The small or bush basil.

OCTA'NUS. Applied to an intermittent fever whose paroxysms are said to return every eighth day.

OCTAN'DRIA. Plants with hermaphrodite flowers and eight stamens.

OCTA'RIUS. The eighth part of a gallon, or sixteen fluid ounces.

OC'TOPODA. From οκτω, eight, and πους, a foot. Octopods. Animals with eight feet. The name of a tribe of *cephalopods* which have eight cephalic tentacular appendages.

OCU'LAR SPECTRES. Imaginary bodies, like flies, spots, &c., floating before the eyes.

OCULA'RIA. Eyebright.

OCULARES COMMUNES. The motores oculorum.

OC'ULIST. One who devotes himself particularly to the treatment of the diseases of the eye.

OCULO-MUSCULARES. A name given by Vicq d'Azyr, to the third pair of nerves.

Oculo-Musculares Communes. A name given by Chaussier to the third pair of nerves.

Oculo-Musculares Externi. A name given by Chaussier to the sixth pair of nerves.

OCU'LUS. From οκκος, the eye. The eye.

Oculus Bovinus. Hydrophthalmia.

Oculus Bovis. Chrysanthemum leucanthemum.

Oculus Cæsius. Glaucoma.

Oculus Genu. The patella.

Oculus Lachrymans. Epiphora.

Oculus Purulentus. Hypopion.

ODAXIS'MUS. From οδους, a tooth. A painful itching of the gums which sometimes precedes the eruption of the teeth. Lancing of the gums in cases of this sort generally affords immediate relief. See Dentition, morbid.

ODONEN'CHYTES. From οδους, a tooth, εν, into, and χυω, I pour. A

tooth syringe, used for injecting the cavity of a tooth.

ODONTAGO'GON. An instrument for the extraction of teeth. See Dentagra.

ODONTAGRA. From οδους, a tooth, and αγρα, a seizure. According to French lexicographers, tooth-ache from retrocedent gout or rheumatism, but the term is employed by Greek writers as synonymous with οδονταγωγον, See Odontagogon.

ODONTAL'GIA. From οδους, a tooth, and αλγος, pain. *Odontia; dentium dolor.* Tooth-ache. Pain, more or less severe, in teeth, resulting, most frequently, from caries of the affected organs and inflammation of the lining membrane, but often dependent upon inflammation of the alveolo-dental periosteum, and sometimes upon the transfer of nervous irritation. It can scarcely, however, as Dr. Wood very correctly remarks, be called a disease, "being merely a symptom of various morbid states of the affected part." The pain is variable in degree and duration. Sometimes it amounts only to a slight uneasiness; at other times to insupportable agony. It may be dull, slight, tantalizing, deep-seated, throbbing, acute or lancinating. It may be confined to a single tooth, or several may be affected at the same time. Commencing in one, it sometimes passes to another and another, until all in one and occasionally in both jaws, are affected. The pain is sometimes continued; at other times paroxysmal, and it may announce itself gradually, or suddenly, and in its most intense form.

From the frequency of the occurrence of caries in the teeth and exposure of the pulp cavity, the lining membrane of a tooth is more apt to be first attacked by inflammation than the investing or alveolar, for, after decay has penetrated to the centre of the organ, it is constantly exposed to the action of acrid humors, and to exciting and irritating agents. Moreover, inflammation here, is attended with a much greater amount of pain, because, surrounded as are the highly vascular and nervous internal tissues of a tooth by unyielding bony parietes, the parts are prevented from distending themselves, and consequently subjected to severe pressure, which becomes a powerful additional cause of pain.

But inflammation of the lining membrane, generally, soon extends to the alveolo-dental, causing it to become thickened and to raise the tooth slightly from the alveolus, so as to strike the antagonizing teeth, before the other teeth meet, occasioning great inconvenience, and preventing a proper comminution of food. But the pain produced by the action of external irritating agents upon an exposed dental membrane and pulp, is of the most violent and agonizing kind, equaling, not unfrequently, in lancinating intensity, the excruciating severity of the worst forms of facial neuralgia.

"The sympathetic affections to which it gives rise," says Mr. Thomas Bell, "are exceedingly various and important; though it is only of late years that they have been properly understood, and the attention of medical men directed to their source. Now, however, that these remote sympathies have excited a degree of interest more commensurate with their importance, so frequently are they found to occur, that practitioners are, on the other hand, in danger of attributing to this cause diseases which have not the remotest connection with it. It not unfrequently happens that parts of the most remote become the apparent seat of pain, from the exposure of the nerve of a tooth. I have seen this occur not only in the face, over the scalp, in the ear, or underneath the lower jaw, but down the neck, over the shoulder, and along the whole length of the arm."

When the inflammation is confined to the parts within the pulp cavity, pressure upon the tooth does not sensibly augment it, but a slight blow upon it

with any hard substance, increases it, as do also hot and cold liquids. Although of rare occurrence, it does sometimes happen that the inflammation extends no farther than the pulp cavity. But whether it remains confined to the lining membrane and pulp, or extends, as it most frequently does, to the investing soft tissues, suppuration generally takes place in six or eight days. It rarely, except prompt and active means be employed to arrest its progress, terminates in resolution. Suppuration of the pulp having taken place, the pressure of the accumulating matter upon the parts at the extremity of the root, generally soon gives rise to the formation of a sac, and true alveolar abscess. Sometimes, however, the matter escapes between the tooth and alveolus. When the carious opening in the crown of the tooth communicates with the internal cavity, the inflammation sometimes gives rise to a fungous growth of the pulp.

When the alveolo-dental periosteum is the part first attacked by the inflammation, the pain is less severe, and more easily controlled. It is, however, equally constant, and more deep-seated, and generally soon extends to the lining membrane, causing, in the mean time, a thickening of the investing tunic, swelling of the gums, and often of the salivary and tonsil glands and face. A painful throbbing sensation is now experienced; a sac soon forms at the extremity of the root; suppuration of the lining membrane supervenes, and an alveolar abscess is formed, which see.

But as the author has before remarked, tooth-ache sometimes results from the transfer of nervous irritation. Individuals of a nervous temperament, and pregnant females are particularly liable to this variety of odontalgia; and it is sometimes a symptom of a disordered state of the stomach. When it results from these causes, its attacks are periodical, seldom lasting more than two or three hours at a time, and recurring at stated, but more frequently, at uncertain intervals. Sound as well as carious teeth are subject to this variety of tooth-ache, and it is often difficult to locate the pain in any particular tooth. Sometimes it seems, at one minute to be seated in one tooth, and at the next in another, frequently passing round the whole jaw. Sometimes it is acute and lancinating, but more frequently dull and tantalizing. Gouty and rheumatic persons are occasionally affected with this variety of tooth-ache.

Some teeth, from a peculiar constitutional idiosyncrasy, are more liable to ache than others. Some persons have all their teeth to decay and crumble to pieces, without ever being attacked with pain, while others whose teeth are apparently perfectly sound, are peculiarly subject to tooth-ache.

Tooth-ache is frequently occasioned by exostosis of the root of one or more teeth, but for a description of this variety, the reader is referred to the article upon that subject, for which, see Exostosis of the Teeth.

In neuralgic tooth-ache, the affection, says Dr. Wood, "may be seated in the nerve of a single tooth; but it much more commonly occupies the nervous trunk from which several teeth are supplied; and not unfrequently affects rather the jaw than the teeth themselves. The pain is usually of the acute character, sometimes mild in the beginning, gradually increasing in intensity, and as gradually declining; but usually very irregular, at one time moderate, at another severe, and occasionally darting with excruciating violence through the dental arches. Not unfrequently it assumes a regular intermittent form. Instead of pain, strictly speaking, the sensation is sometimes of that kind which is indicated when we say that the teeth are on edge, and is apt to be excited by certain harsh sounds, such as that produced in the filing of saw teeth, by mental inquietude, and by the

contact of acids or other irritant substances. Neuralgic tooth-ache sometimes persists, with intervals of exemption, for a great length of time. The diagnosis is occasionally difficult. When, however, it occurs in sound teeth, is paroxysmal in its character, is attended with little or no swelling of the external parts, occupies a considerable portion of the jaw, and especially when it alternates or is associated with pain of the same character in other parts of the face, there can be little doubt as to its real nature." This is a variety of sympathetic tooth-ache, and in most cases, is principally the result of the transfer of nervous irritation. The teeth no doubt, as in almost every form of the affection, though perhaps free from caries, increase, either by the manner in which they are arranged in the alveolar arch, or in some other way, the susceptibility of the parts to morbid impressions, and thus, as it were, in some degree, invite a transfer of nervous irritation, as is shown by the fact, that the pain almost always ceases on their removal. Cases, however, are occasionally met with, as will presently be seen, where the affection is purely neuralgic.

In treating of tooth-ache, Dr. Good says, "this is often an idiopathic affection, dependent upon a peculiar irritability, from a cause we cannot easily trace, of the nerves subservient to the aching tooth, or the tunics by which it is covered, or the periosteum, or the fine membrane that lines the interior of the alveoli. But it is more frequently a disease of sympathy, produced by pregnancy, or chronic rheumatism, or acrimony in the stomach, in persons of an irritable habit."

"It is still less to be wondered at, that the nerves of the teeth should often associate in the maddening pain of neuralgia faciei, or tic douloureux, as the French writers have quaintly denominated it, for here the connection is both direct and immediate. In consequence of this, the patient, in most instances, regards the teeth themselves as the salient points of pain, *(and they unquestionably may be so in some cases,)* and rests his only hope of relief upon extraction; and when he has applied to the operator, he is at a loss to fix upon any one point in particular. Mr. Fox gives a striking example of this, in a person for whom he extracted a stump, which afforded little or no relief; in consequence of which his patient applied to him only two days afterwards and requested the removal of several adjoining teeth, which were perfectly sound. This he objected to, and suspecting the real nature of the disease, he immediately took him to Mr. (now Sir) Astley Cooper, who, by dividing the affected nerve, procured a radical cure in a few days."

The author has met with several similar cases, one, a Mr. F. who had all his teeth on the right side of both jaws extracted without obtaining any relief.

The treatment of tooth-ache should be as variable as are the causes which produce it. When dependent upon inflammation of the lining or investing periosteal tissue, or both, without exposure of the pulp, the application of two or three leeches to the gums of the affected tooth, and if accompanied by general febrile symptoms, blood-letting from the arm, saline cathartics, and abstinence from animal food, may be advisable; but this treatment will prove beneficial only in the incipient stage of the affection. After swelling of the gums has taken place, accompanied by a throbbing pain, a certain prognostic of the formation of alveolar abscess, the progress of the inflammation can only be arrested by the extraction of the tooth. The intensity of the pain, accompanying inflammatory tooth-ache, may sometimes be temporarily palliated by the use of revulsive applications, but as no permanent benefit is derived from temporizing treatment of this sort, the immediate removal of the organ should be recommended, except its presence is called for by some peculiar necessity.

In this case, the pulp of the tooth, if the caries has not already penetrated to it, may be exposed, and a fortieth or fiftieth part of a grain of arsenious acid, with an equal quantity of the sulphate of morphia, applied to it, on a small particle of raw cotton, previously moistened in water. The cavity should then be immediately sealed up with a little yellow wax or gum mastic. In from five to seven hours, the vitality of the pulp will be completely destroyed, when the arsenic may be removed, and the cavity washed out. For the subsequent treatment, see Filling Teeth.

Tooth-ache occasioned by exposure of the pulp of a tooth and slight inflammation of the lining membrane, may, in most cases, be temporarily relieved by the application of a bit of raw cotton moistened in either of the following, viz. ℞.—Sul. ether, ʒ i; creasote, ʒ ss. ext. nut galls, ʒ i; gum camph. ʒ ss; misce. ℞.—Sul. ether, ʒ i; pul. camph. ʒ ij; pul. alum, ʒ ij; misce.

The application of this to the exposed pulp, should be repeated from time to time, as occasion may require. The last formula the author has found to be more certain and efficacious than the first. Neither, however, are specifics, and when they fail to afford relief, the extraction of the tooth should be recommended, except, as we before stated, its presence is called for by some very urgent necessity, when the pulp may be destroyed by the application of arsenious acid. With regard to the propriety of this, there is a diversity of opinion, inasmuch, as so great a portion of the vitality of the tooth is, at the same time destroyed, that the organ is apt, sooner or later to become obnoxious to the surrounding parts. But the vascular and nervous supply from the investing membrane, will, in the majority of cases, if the root of the tooth be filled, so as to prevent it from becoming a reservoir for morbid secretions, counteract the prejudicial effects which would otherwise be likely to occur. In a front tooth, the pulp may be immediately extirpated with an instrument, a method which the author conceives to be preferable to destroying it with arsenic.

When suppuration of the pulp and lining membrane of a front tooth, in other respects sound, has taken place, the pain may be relieved as well as the formation of alveolar abscess prevented by perforating the tooth and giving egress to the confined matter. When the discharge ceases and the parts around the extremity of the root become healthy, the opening should be enlarged and both it and the pulp cavity and fang up to its very apex, filled. By this means a recurrence of the disease may often be prevented and the tooth preserved and rendered useful for many years. But should alveolar abscess afterwards form, the removal of the tooth will probably become necessary. The most favorable point for perforating the tooth is in the posterior surface, and in introducing the drill it should be directed towards the pulp cavity. This operation was first proposed by Mr. Fox.

Tooth-ache resulting from the transfer of nervous irritation, requires different treatment; if it be occasioned, as is often the case, by a disordered state of the stomach, an emetic or cathartic will often afford relief. In pregnant females, pediluvium and a dover's powder on going to bed will frequently assuage the pain, and if the pulps of none of the teeth have become exposed from caries, but if they have, or if any of the teeth have lost their vitality, or from any other cause, act as morbid irritants, they should be extracted. The fear of inducing abortion by the operation, is not well founded. A tooth may generally be extracted at any period of pregnancy, if the apprehensions of the patient with regard to the supposed unfavorable consequences likely to result from the operation can be previously allayed. When the pain is dependent upon long continued nervous irritation of the general system, tonics, gentle ex-

ercise, change of air, and such other general means as the nature of the symptoms may seem to indicate should be recommended. Local applications alone will seldom afford much relief.

The treatment of neuralgic tooth-ache should be conducted upon the same general principles. In cases of debility, tonic medicines, especially subcarbonate of iron and sulphate of quinine, administered in large doses, three or four times a day, have sometimes proved highly beneficial. Dr. Wood says, "the extracts of belladonna, stramonium, hyoscyamus, conium and aconite, may be employed singly, or in combination. Opium or some of its preparations are occasionally necessary, to relieve the violence of the pain. When the neuralgic affection can be traced to sympathy with disease elsewhere, this should be corrected. Thus, antacids should be given in acidity of the stomach, laxatives in constipation of the bowels, the blue mass or calomel in deranged or deficient hepatic secretion, aloes or other emanagogues in amenorrhœa; and not unfrequently the co-existence of two or more of these affections calls for the simultaneous use of the appropriate remedies. If a rheumatic or gouty diathesis be suspected, wine of colchicum, hot pediluvia, and other means adapted to these disorders may be tried."

The treatment, in short, should be varied to suit the indications of the constitutional disease or affection which may be concerned in its production.

Odontalgia Hæmodia. See Hæmodia.

Odontalgia Nervosa. Neuralgic tooth-ache. See Odontalgia.

ODONTAL'GIC. *Odontalgicus.*—Anti-odontalgic. Relating to tooth-ache. Remedy for the tooth-ache.

Odontalgic Drops, Blake's. ℞.—Nitrous ether, 5 parts; pulvis aluminæ, 2 parts, mix.

Odontalgic Elixir, Lalander's. ℞.—Essential oil of cloves, ʒ i; essential oil of thyme, ʒ ss; thebaic extract, ʒ ij; alcohol of roses, ʒ ij; frontignan wine, ʒ iij. Digest for eight days and filter. It is directed to be used by holding a few drops in the mouth on the painful side, and rejected as soon as the pain ceases.

Odontalgic Mixture, Cadet's. ℞.—Sulph. ether, ʒ i; laudanum, ʒ i; turlington's balsam, ʒ i; essential oil of cloves, gtt. ij. Mix, and apply to the painful tooth, on a little cotton.

ODON'TALITE. A petrified tooth.

ODONTIA. Odontalgia.

ODON'TIA INCRUS'TANS. Tartar of the teeth.

ODONTIASIS. Dentition.

ODONTITIS. *Dentium inflammatio.* Inflammation of the teeth.

ODONTOG'ENY. *Odontogenia;* from οδους, οδοντος, a tooth, and γενεσις, generation. The generation, or origin and development, of the teeth. See Teeth, development of pulps and sacs of.

ODONTOGLY'PHON. An instrument for cleaning the teeth; also, a gum lancet.

ODONTOG'RAPHY. *Odontographia;* from οδους, a tooth, and γραφη a description. A description of teeth.

ODON'TOID. *Odontoides;* from οδους, a tooth, and ειδος, resemblance, shape. Tooth-like. In *Anatomy*, a name applied to a process of the second cervical vertebra; also, to a ligament attached to this process.

ODONTOL'ITHOS. From οδους, a tooth, and λιθος, a stone. Salivary Calculus, which see.

ODONTOL'OGY. *Odontologia;*—from οδους, a tooth, and λογος, a discourse. A treatise on the teeth.

ODONTON'OMY. *Odontonoma;*—from οδους, a tooth, and ονομα, a name. See Dentonomy.

ODONTOPHY'IA. Dentition.

ODONTORRHAG'IA. Hemorrhage from the socket of a tooth.

ODONTO'TECHNY. *Odontotechnia;* from οδους, a tooth, and τεχνη, art. Dental surgery.

ODONTOTRIM'MA. From οδους,

a tooth, and τριμμα, a pulverised substance. A tooth powder.

ODONTA'TROPHY. *Odontatrophia;* from οδους, a tooth, and ατροφια, want of nourishment. Consumption; atrophy of the teeth.

ODOR. Smell, scent; a sweet or an offensive smell. The subtle emanation of an odoriferous body.

ODOUS. Οδους. A tooth.

ŒCONOMY. See Economy.

ŒDE'MA. From οιδεω, I am swelling. Swelling occasioned by an accumulation of serous fluid of the cellular texture. See Anasarca.

ŒDEMA ARSENICALIS. The swelling of the eyelids and face produced by the use of arsenical medicines.

ŒDEMA CEREBRI. Infiltration of the brain with a watery fluid.

ŒDEMA, COMPACT. Induration of the cellular tissue.

ŒDEMA OF THE GLOTTIS. Œdematous swelling of the mucous membrane of the glottis, a very dangerous and almost always fatal affection.

ŒDEMA LACTEUM. Phlegmasia dolens.

ŒDEMA OF THE LUNGS. Serous infiltration into the tissue of the lungs, carried to such an extent as to impede respiration.

ŒDEMA UVU'LÆ. Staphylœdema.

ŒDEMOSAR'CA. A tumor partaking of the nature both of an *œdema* and *sarcoma.*

ŒNAN'THE. The name of a genus of umbelliferous plants.

ŒNANTHE CROCA'TA. Hemlock dropwort. Hemlock water dropwort.

ŒNELÆ'UM. From οινος, wine, and ελαιον, oil. A beverage composed of wine and oil.

ŒNO'MELI. From ειvος, wine, and μελι, honey. Honied wine; wine sweetened with honey.

ŒNOSTAG'MA. Rectified spirits of wine.

ŒNOTHE'RA BIEN'NIS. The evening primrose, a common indigenous plant.

ŒSOPHAGE'AL. Relating to the œsophagus.

ŒSOPHAGI'TIS. Inflammation of the œsophagus.

ŒSOPHAGOT'OMY. The operation of cutting into the œsophagus for the removal of a foreign body.

ŒSOPH'AGUS. From οιω, I carry, and φαγω, I eat. The gullet. A musculo-membranous tube, extending from the pharynx to the superior orifice of the stomach. Commencing opposite the lower border of the cricoid cartilage and the fifth vertebra of the neck, behind, and a little to the left of the trachea, it passes in its descent behind the arch of the aorta, along the posterior mediastinum, enters the abdomen through an opening in the diaphragm, and terminates in the cardiac orifice of the stomach, situated nearly opposite the tenth dorsal vertebra.

ŒSTROMA'NIA. Nymphomania.

ŒSTRUM. Clitoris.

ŒSTRUM VEN'ERIS. A strong desire for sexual intercourse; the excitement of coition.

OETTINGER. Dissertation on the Development of the Teeth, by. Erlang, 1770.

OFFIC'INAL. *Officinalis.* A term applied to medicines directed by the pharmacopœia, with the assent of the physicians.

OIL. Oleum.

OIL OF ALMONDS. The fixed oil of the kernels of amygdalus communis.

OIL OF AMBER. Oleum succini.

OIL OF AMBER, RECTIFIED. Oleum succini rectificatum.

OIL OF ANISE. Oleum anisi.

OIL OF BENNE. Oleum sesami.

OIL OF BERGAMOT. Oleum bergamii.

OIL OF CARAWAY. Oleum cari.

OIL OF CHAMOMILE. Oleum anthemidis.

OIL OF CINNAMON. Oleum cinnamonni.

OIL OF CLOVES. Oleum caryophylli.

OIL OF COPAIBA. Copaibæ oleum.

Oil of Cubebs. Oleum cubebæ.

Oil of Dill. Oleum anethi.

Oil of Elder Flowers. Oleum sambuci.

Oil of Fennel. Oleum fœniculi.

Oil of Horsemint. Oleum monardæ.

Oil of Juniper. Oleum juniperi.

Oil of Lavender. Oleum lavandulæ.

Oil of Lemons. Oleum limonis.

Oil of Marjoram. Oleum origani.

Oil of Nutmeg. Oleum myristicæ.

Oil, Olive. Oleum olivæ.

Oil of Origanum. Oleum origani.

Oil of Partridge-berry. Oleum gaultheriæ.

Oil of Pennyroyal. Oleum hedeomæ.

Oil of Peppermint. Oleum menthæ piperitæ.

Oil of Pimento. Oleum pimentæ.

Oil, Phosphorated. Oleum phosphoratum.

Oil of Rosemary. Olium rosmarini.

Oil of Roses. Oleum rosæ.

Oil of Rue. Oleum rutæ.

Oil of Sassafras. Oleum sassafras.

Oil of Savin. Oleum savinæ.

Oil of Spearmint. Oleum menthæ veridis.

Oil of Tar. An impure, red-colored volatile oil, obtained from tar by distillation with water.

Oil of Turpentine. Oleum terebinthinæ.

Oil of Vitriol. Sulphuric acid.

Oil of Wormseed. Oleum chenopodii.

OILS, ESSENTIAL. Oils obtained by distillation.

Oils, Expressed. Fixed oils.

Oils, Volatile. See Essential Oils.

OINTMENT. See Unguentum.

OLEA DISTILLATA. Distilled or essential oils.

Olea Empyreumat'ica. Empyreumatic oils, or oils which have a burnt smell.

Olea Europæa. The olive. *Oliva,* and *olea sativà.* The olive tree; from the fruit of which the olive oil is obtained.

Olea Fixa Vel Pin'guia. *Expressed oils. Fixed oils. Fatty oils.* The oils obtained from the seeds of vegetables without distillation.

Olea Fuga'cia. Oils which are of so volatile a nature as to require a different process for obtaining them than that employed for other volatile oils; as the oils of jessamine, lily, violets, &c.

Olea Medicina'lia. Medicinal oils, or oily solutions of certain medicinal substances.

Olea Volatil'ia. Distilled or essential oils. Oils obtained from aromatic vegetables, and generally by distillation.

OLEA'MEN. A soft ointment prepared of oil.

OLEAN'DER. Rhodondendron chrysanthemum.

OLEC'RANON. From ωλενη, the ulna, and κρανον, the head. A large process at the upper extremity of the ulna, forming the projection of the elbow.

Olefiant Gas. Heavy carbureted hydrogen.

OLEUM. Oil.

Oleum Absinthii. Oil of Artemisia absinthium.

Oleum Æthe'reum. *Ethereal oil. Heavy oil of wine. Sulphate of ether and etherine.* A yellowish liquid, of oleaginous consistency, acrid odor, and sharp, bitter taste, formed in the distillation of ether.

Oleum Amygdalæ. Oil of almonds.

Oleum Anethi. Oil of dill.

Oleum Anisi. Oil of anise.

Oleum Anthemidis. Oil of chamomile.

Oleum Bergamii. Oil of bergamot.

Oleum Benzo'ini. Oil of benzoin or benjamin.

Oleum Bu'bulum. Neat's-foot oil.

Oleum Cajuputi. Oil of cajuput.

Oleum Camphoratum. Camphor liniment.

Oleum Cari, or Carui. Oil of caraway.

Oleum Caryophyl'li. Oil of cloves.

Oleum Chenopodii. Oil of wormseed.

Oleum Cinnamomi. Oil of cinnamon.

Oleum Copaibæ. Oil copaiba.

Oleum Cornu Cervi. Oil of hartshorn.

Oleum Cubebæ. Oil of cubebs.

Oleum Fœniculi. Oil of fennel.

Oleum Gaultheriæ. Oil of partridge-berry.

Oleum Hedeomæ. Oil of pennyroyal.

Oleum Juniperi. Oil of juniper.

Oleum Lavandulæ. Oil of lavender.

Oleum Limonis. Oil of lemons.

Oleum Lini. Flaxseed oil.

Oleum Menthæ Piperitæ. Oil of peppermint.

Oleum Menthæ Pulegii. Oil of European pennyroyal.

Oleum Menthæ Viridis. Oil of spearmint.

Oleum Monardæ. Oil of horsemint.

Oleum Myristicæ. Oil of nutmeg.

Oleum Olivæ. Olive oil.

Oleum Origani. Oil of marjoram.

Oleum Phosphoratum. Phosphorated oil.

Oleum Pimentæ. Oil of pimenta.

Oleum Pulegii. Oil of European pennyroyal.

Oleum Ricini. Castor oil.

Oleum Rosæ. Oil of roses.

Oleum Rosmarini. Oil of rosemary.

Oleum Rutæ. Oil of rue.

Oleum Sabinæ. Oil of savine.

Oleum Sambuci. Oil of elder flowers.

Oleum Sassafras. Oil of sassafras.

Oleum Sesami. Benne oil.

Oleum Succini. Oil of amber.

Oleum Succini Rectificatum.—Rectified oil of amber.

Oleum Sulphuratum. Balsam of sulphur.

Oleum Tartari Per Deliquium.—Solution of carbonate of potash.

Oleum Terebinthinæ. Oil of turpentine.

Oleum Terebinthinæ Purificatum. Purified oil of turpentine.

Oleum Thymy. Oil of thyme.

Oleum Tiglii. Croton oil.

Oleum Vitrioli. Sulphuric acid.

Oleum Vivum. Bitumen.

OLEFAC'TION. *Olefactus.* The faculty of smelling.

OLFAC'TORY. *Olfactorius;* from *olfactus,* the smell. Belonging, or relating, to the apparatus of smelling.

Olfactory Foram'ina. The holes or foramina in the cribriform plate of the ethmoid bone.

Olfactory Nerves. *Nervi olfactorii.* The first pair of nerves.

OLFACTUS. The sense of smell.

OLIBANUM. Juniperus lycia.

OLIGÆMIA. Anæmia.

OLIGOBLEN'NIA. From ολιγος, few, and βλεννα, mucus. Deficiency of mucus.

OLIGOCHOL'IA. From ολιγος, few, and χολη, bile. Deficiency of bile.

OLYGOCH'YLUS. From ολιγος, few, and χυλος, juice, chyle. Deficiency of chyle, and but little nutritious.

OLIGOTROPH'IA. From ολιγος, few, and τρεφω, I nourish. Deficiency of nourishment.

OLISTHE'MA. A luxation.

OLIVA. Olea Europœa.

OLIVA'RIS. From *oliva,* the olive. Resembling an olive. Olive-shaped.

OLIVE. See Olea Europœa.

OLOPHO'NIA. Congenital defect of the organs of voice.

OM'AGRA. From ωμος, the shoulder, and αγρα, a seizure. Gout in the shoulder.

OMA'SUM. The third stomach of ruminantia.

OMENTI'TIS. Inflammation of the omentum.

OMEN'TUM. The caul, or epiploon.

OMMA. The eye.

OMNIV'OROUS. *Omnivorus;* from *omnis,* all, and *voro,* to devour. Ani-

mals which feed indiscriminately on vegetable and animal substances.

OMO-. A prefix, from ωμος, the shoulder. Relating to the shoulder.

OMOCO'TYLE. The glenoid cavity of the scapula.

OMO-HYOIDE'US. A muscle arising from the superior costa of the scapula, and inserted into the inferior margin of the os hyoides.

OMOPLA'TA. The scapula.

OMOS. The shoulder.

OMOT'RIBES. Oil from unripe olives.

OMPHA'CINUM. The juice of unripe grapes.

OMPHACI'TES. Wine prepared from unripe grapes.

OMPHALOCE'LE. Umbilical hernia.

OMPHALO-MESENTER'IC. *Omphalo-mesentericus;* from ομφαλος, the navel, and *mesenterium*, the mesentery. Relating to the navel and mesentery.

Omphalo-Mesenteric Vessels. A name given by Haller to an artery, and vein of the umbilical vesicles of the fetus, which terminate in the superior mesenteric artery and vein.

OMPHALOS. The umbilicus.

ONANISM. Masturbation.

ONCOS. A tumor.

ONCOT'OMY. *Oncotomia;* from ογκος, a tumor, and τομη, incision. The operation of opening a tumor or abscess.

ONEIRODYN'IA. From ονειρος, a dream, and οδυνη, anxiety. Disturbed and troubled dreams.

ONEIROG'MOS. A lascivious dream.

ONION. Allium cepa.

Onion, Sea. Scilla maritima.

ONIS'CUS. A genus of apterous insects. The wood-louse. Also, the glow-worm.

ONOMATOLOG'IA. Nomenclature.

ONOPOR'DIUM. The name of a genus of plants.

Onopordium Acan'thium. The cotton thistle.

ONTOL'OGIST. One who treats of the nature and qualities of being in general.

ONTOL'OGY. *Ontologia;* οντα, from ειμι and λογος. That department of science which investigates the nature of beings.

ONY'CHIA. From ονυξ, the nail. Paronychia at the side of the finger nail.

ONYCHOGRAPHO'SIS. A curvature of the nails.

ONYCHON'OSI. Diseases of the nails.

ONYCHOPTO'SIS. Falling off of the nails.

ONY'CHOTEUTHIS. From ονυξ, a claw, and τευθος, a calamary. The name of a genus of *calamaries*, in which the suckers of the cephalic appendages are armed with a hook or claw.

ONYX. Nail. Also, applied to a collection of purulent matter between the lamellæ of the cornea.

OOEIDES. The aqueous humor.

O'OLITE. From ωον, an egg, and λιθος, a stone. A granular variety of carbonate of lime, like the roe or eggs of a fish.

OON. An ovum or egg.

OPAC'ITY. *Opacitas.* The quality of an opaque body which obstructs the rays of light.

OP'ALINE. Resembling the opal; of a milky, irridescent color.

OPAQUE. Impermeable to the rays of light.

OPERA'TION. *Operatio;* from *opus*, work. In *Surgery*, the application of instruments to the human body for the cure of disease. Also, sometimes applied to the action of medicine, as that of a purgative, &c.

OP'ERATOR. One who performs a manual process. In *Surgery*, a surgeon. In *Dentistry*, a dentist.

OPER'CULATE. *Operculatus.*—Having a lid-like cover. Operculated.

OPER'CULUM. A lid or cover.

OPHIASIS. A species of porrigo decalvens, or partial baldness, in which the parts destitute of hair, present a winding figure, or form.

OPHIOGLOS'SUM. The name of a genus of ferns.

Ophioglossum Luna'ria. Moonwort.

Ophioglossum Spicatum. Adder's tongue.

OPHIORRHI'ZA. The name of a genus of plants.

Ophiorrhiza Mungos. Radix serpentum. Mungos radix.

OPHIOSTO'MA. The name of a genus of intestinal worms which have two lips.

OPHIOX'YLUM. The name of a genus of plants.

Ophioxylum Serpenti'num. The tree yielding the lignum serpentum.

OPHIS. A serpent.

OPHI'TES. From οφις, a serpent. The serpentine or black porphyry—a rock formerly worn as an amulet for the cure of diseases of the head.

OPHRYS. The eyebrow.

OPHTHALMAL'GIA. From οφθαλμος, the eye, and αλγος, pain. Pain in the eye.

OPHTHAL'MIA. From οφθαλμος, the eye. *Ophthalmitis.* A term used to designate inflammation of the investing membranes of the eye, and of the inner surfaces of the eyelids, or of the whole bulb of the eye. There are several varieties of opthalmia; and each of which has received a specific designation, as *acute, chronic, conjunctival, Egyptian, gonorrhœal, purulent,* &c.

OPHTHAL'MIC. *Ophthalmicus;*—from οφθαλμος, the eye. Belonging, or relating, to the eyes.

Ophthalmic Artery. A branch of the internal carotid artery, which passes to the eye through the foramen opticum.

Ophthalmic Ganglion. Lenticular ganglion. A ganglion situated on the external part of the optic nerve in the orbit.

Ophthalmic Nerve. A branch given off from the Casserian ganglion; it is the first and smallest of the fifth pair; enters the orbit by the sphenoidal fissure, and divides into the *lachrymal, frontal* and *nasal* nerves.

Ophthalmic Vein. A vein which accompanies the ophthalmic artery.

OPHTHALMICI EXTERNI.—Motores oculorum.

OPHTHALMI'TIS. Ophthalmia. This term is restricted by some writers to inflammation of the bulb of the eye.

OPHTHALMO-BLENNORRHŒA. Purulent ophthalmia.

Ophthalmo-Carcino'ma. Cancer of the eye.

OPHTHALMOCE'LE. Protrusion of the bulb of the eye.

OPHTHALMODYN'IA. From οφθαλμος, the eye, and οδυνη, pain. Pain in the bulb of the eye. According to Plenck, orbito-frontal neuralgia.

OPHTHALMOG'RAPHY. From οφθαλμος, the eye, and γραφη, a description. A description of the eye.

OPHTHALMOL'OGY. From οφθαλμος, the eye, and λογος, a discourse. A treatise on the eye.

OPHTHALMOM'ETER. From οφθαλμος, the eye, and μετρον. A measure. An instrument for measuring the capacity of the chambers of the eye.

OPHTHALMOPLE'GIA. From οφθαλμος, the eye, and πλησσω, I strike. Paralysis of one or more of the muscles of the globe of the eye.

OPHTHALMOPTO'SIS. From οφθαλμος, the eye, and πτωσις, a falling down. Protrusion, and prolapsus of the globe of the eye.

OPHTHALMOS. The eye.

OPHTHALMOSTA'TUM. From οφθαλμος, the eye, and στασις, station. An instrument for confining the eye; a speculum oculi.

O'PIATE. *Opiatum.* A medicine containing opium; an anodyne.

OPION. Opium.

OPIS'THENAR. The back of the hand.

OPISTHOT'ONOS. From οπισθεν, backward, and τεινω, I bend. A variety of tetanus, in which the body is bent backward.

OPIUM. Οπιον. The inspissated juice of the poppy.

OPOBAL'SAMUM. *Opobalsam.*—Amyris gileadensis.

OPODEL'DOC. Camphorated soap liniment.

OPOP'ANAX. The gum resin of opopanax chironum.

OPO'RICE. A conserve of several autumnal fruits, particularly quinces and pomegranates.

OPPO'NENS. Opposing. An epithet applied to two muscles of the hand.

Opponens Min'imi Dig'iti. A small muscle of the hand situated on the hypothenar eminence.

Opponens Pol'licis. The flexor ossis metacarpi pollicis muscle.

OPPOSITUS. Opposed; placed opposite to each other.

OPPRESSIO CEREBRI. Catalepsy.

OPPRES'SION. *Oppressio.* A sense of weight, especially about the chest, which seems to impede respiration.

OPSIONU'SI. From ωψις, vision, and νουσος, a disease. Diseases of vision.

OPSIS. Vision.

OPTIC. *Opticus;* from οπτομαι, I see. Relating to vision.

Optic Foramen. A foramen in the sphenoid bone through which the optic nerve passes.

Optic Nerve. The second pair of cerebral nerves.

OPTICS. That branch of physics which relates to vision and the phenomena of light.

ORA SERRATA. The posterior serrated margin of the ciliary processes.

ORANGE. Citrus aurantium.

ORBIC'ULAR. *Orbicularis;* from *orbis,* a circle. Round; a circle.

Orbicular Bone. The smallest of the four bones of the ear.

Orbicularis Oris. The circular muscle which surrounds the mouth. It has no bony attachment, and consists of two planes of fibres—one for the upper, the other for the lower lip—which meet at the angles of the mouth. Its use is to draw the lips together and shut the mouth.

Orbicularis Palpebrarum. A muscle common to both eyelids, in the substance of which it is seated. Its use is to shut the eye by drawing both lids together.

ORBIC'ULATE. *Orbiculatus.*—Round and flat.

ORBICULUS CILIARIS. The ciliary ring or circle.

ORBIT. *Orbitum.* The two cavities which lodge the organs of sight.

Orbital Arch. The superior edge of the orbit.

Orbital Fissures. The sphenoidal and spheno-maxillary fissures, situated in the orbit. The first is called the *superior,* and the other, the *inferior.*

Orbital Nerve. A branch of the superior maxillary, which enters the orbit by the spheno-maxillary fissure.

ORBITAR. Relating to the orbit.

Orbitar Foram'ina. The foramina entering the orbit, which are, the *anterior* and *posterior ethmoidal orbitar,* the *optic,* the *foramen lacerum superius,* and the *supra* and *infra-orbitar foramina.*

ORCHEOT'OMY. Castration.

ORCHIS. Ορχις. A testicle. Also, the name of a genus of plants.

Orchis Bifolia. The butterfly orchis.

Orchis Mas'cula. The male orchis.

Orchis Morio. The salep root.

ORCHI'TIS. From ορχις, a testicle, and *itis,* signifying inflammation. Inflammation of the testicle.

ORCHOS. The tarsal extremities of the eyelids.

ORCHOT'OMY. Castration.

OREOSELI'NUM. Black mountain parsley.

OREXIS. Appetite.

ORGAN. *Organum.* A part of an organized body, animal or vegetable, which has a determined function or office to execute.

ORGAN'IC. *Organicus.* Relating to an organ or organs; possessed of organs.

Organic Chemistry. The chemistry of matters derived from animals or plants.

Organic Diseases. Diseases which cause a change in the structure of an organ or organs; or in which an organ is directly implicated.

Organic Force. See Plastic Force.

OR'GANISM. The aggregate of the organs and powers which govern an organized being.

Organism, Dental. See Dental Organism.

ORGANIZA'TION. *Organizatio;* from οργανον, an organ. The condition, or arrangement, of the parts of an organized body.

ORGANOG'ENY. *Organogenia;* from οργανον, an organ, and γενεσις, generation. The formation of the organs.

ORGANOG'RAPHY. *Organographia;* from οργανον, an organ, and γραφη, a description. A description of the organs of a living body.

ORGANOT'OMY. Anatomy.

OR'GASM. *Orgasmus;* from οργαω, I desire ardently. Excitement and vital turgescence of an organ, but generally applied to the organs of generation.

ORGAS'TICA. An order of diseases in the class *genetica*, of Good's Nosology. Diseases which affect the orgasm.

ORIG'ANUM. The origanum vulgare. Also, the name of a genus of plants.

Origanum Creticum. *Origanum dictamnus.* Dittany of Crete.

Origanum Marjora'na. Sweet marjoram.

Origanum Syriacum. Teucrium marum.

Origanum Vulgare. Wild marjoram.

ORIGIN. In *Anatomy*, the commencement of a muscle.

ORIS CONSTRICTOR. The orbicularis oris.

ORISMOL'OGY. Terminology.

ORNITHOL'OGY. From ορνις, a bird, and λογος, a discourse. A treatise on birds.

ORNUS EUROPÆA. Fraxinus ornus.

OROBUS. The name of a genus of plants.

Orobus Tuberosus. The heath-pea.

OR'PIMENT. The native yellow sulphuret of arsenic.

ORPINE. Sedum telephium.

ORRHOS. Serum. Also, the perineum, and extremity of the sacrum.

ORRIS. Iris florentina.

ORTHO'CERA. From ορθος, straight, and κερας, a horn. Orthocerates. The extinct *cephalopods*, a class of molluscous animals, having the head situated between the body, and the feet, which inhabited long chambered shells, resembling a horn.

ORTHOCO'LON. Anchylosis, with the limb extended.

ORTHODON'TIA. *Dental orthopædia;* from ορθος, straight, right, and οδους, a tooth. That part of dental surgery which has for its object, the treatment of irregularity of the teeth. See Irregularity of the Teeth, treatment of.

ORTHODON'TIC. Relating to the treatment of irregularity of the teeth.

ORTHOPÆDI'A. From ορθος, straight, right, and παις, a child. The correction of deformities of children, such as club-foot, &c.

ORTHOPED'IC. Relating to orthopædia.

ORTHOPNŒ'A. From ορθος, straight, and πνεω, I respire. Inability to breathe in a recumbent posture.

Orthopnœa Cardiaca. Angina pectoris.

Orthopnœa Convulsiva. Asthma.

Orthopnœa Cynanchica. Cynanche trachialis.

ORTHOPTE'RA. *Orthopterous;*—

from ορθος, straight, and πτερον, a wing. Applied to an order of insects which have straight wings, as the locust and grasshopper.

ORTLOB. Dissertation on the Difficult Teething of Children, by. Leipsic, 1694.

ORY'ZA. Rice. Also, the name of a genus of plants.

Oryza Sati'va. The rice plant.

OS. Bone, which see. Also, mouth, and in the latter sense, applied to openings of parts, as the *os externum, os internum, os tincæ*, &c.

Os Externum. The entrance into the vagina.

Os Internum. The mouth of the uterus.

Os Sepiæ. The cuttle-fish bone, which is sometimes used in a pulverised state as a dentifrice.

Os Tincæ. Os interrum.

OSANORE TEETH. A name given by Mr. William Rogers, to artificial teeth constructed from the ivory of the tooth of the hippopotamus, and, as he says, afterwards submitted to the action of some peculiar chemical agent, by which the pores of the ivory become filled with a silicious substance. But Mr. Rogers does not tell his professional readers what this chemical agent is, though he represents the teeth of his manufacture as being superior to those of any one else. When he makes known this *most wonderful* discovery, the profession will judge of its value, though the object of his secresy may not be rendered any more apparent by so doing.

OSCE'DO. Aphthæ.

OSCHEAL. Relating to the scrotum.

OSCHEO-CARCINOMA. Chimney-sweeper's cancer.

OSCHEOCE'LE. From οσχεον, the scrotum, and κηλη, a tumor. A tumor of the scrotum. Also, scrotal hernia.

OSCHEON. Οσχεον. The scrotum.

OSCHEOPHY'MA. Hydrocele.

OSCHI'TIS. Inflammation of the scrotum.

OSCILLA'TIO. Muscular irritability.

OSCILLA'TION. Vibration; swing-like; a pendulum.

OSCILLATO'RIA. A term applied to plants of the lowest organization. They are found in wet and damp places, and consist of threads, which, apparently, sometimes have movement.

OS'CITANT. *Oscitation;* from *oscitare*, to yawn. Yawning; gaping.

OSCULATO'RIUS. The orbicularis oris.

OS'MAZOME. From οσμη, smell, and ζωμος, soup. An extractive matter in meat having the smell of soup.

OSME. Odor.

OSMIUM. A metal discovered by Tennant, and so called from the peculiar smell of its oxyd.

OSMONO'SI. Diseases of the sense of smell.

OSMUN'DA. The name of a genus of ferns.

Osmunda Lu'naria. Moon-wort.

Osmunda Rega'lis. The osmund royal.

OSPHRE'SIS. Olfaction; the sense of smell.

OSPHYS. The loins.

OSSA INCISORIA. Ossa intermaxillaria.

Ossa Intermaxillaria. *Ossa labialia.* Two bones situated between the superior maxillary in quadrupeds, but not in man, which receive the roots of the incisor teeth of animals that have these teeth.

Ossa Labialia. Ossa intermaxillaria.

Ossa Spongiosa. Os spongiosum.

Ossa Usta Alba. *Ossa calcinata.* Bones calcined into a white powder.

OS'SEOUS. Bony.

Osseous Bases for Artificial Teeth. Previously to the employment of metallic bases, osseous attachments for artificial teeth were much used. They were generally carved from the ivory of the tusk of the elephant or the tooth of the hippopotamus, and, in-

deed, the entire substitute—the teeth as well as the base, were formerly wholly constructed from it, but since the introduction of metallic bases, it has been less frequently employed for this purpose.

In the adaptation of an osseous base, the operator should first procure two accurate plaster models, one for roughly fitting, and the other for finishing the piece, and with a piece of ivory, or the tooth of the hippopotamus, a little larger than the portion of the alveolar border to be covered by it. One of the models should next be covered with red, brown, or black paint, to mark upon the block, from time to time, during the process of fitting the piece where it is to be cut away. With a file and round and straight-edged engravers it may now be cut away, trying it upon the model occasionally, until it is partially fitted, when for the completion of its adjustment, the second model should be painted and employed, as the first, as by the repeated application of the block, it will be more or less rubbed and worn. The piece being accurately fitted, the operator may proceed to mount the teeth upon. See Mounting Artificial Teeth upon an Osseous Base.

Osseous Union of Teeth. See Teeth, osseous union of.

OSSIC'ULUM. A small bone.

OSSICU'LA AUDI'TUS. The four small bones of the internal ear.

OSSIFICA'TION. *Ossificatio;* from *os*, a bone, and *facere*, to make. The formation of bone.

Ossification, Points of. The points where the ossification of bone commences. In the teeth, the edges of the incisores, the points of the cuspidati, cusps of the bicuspides, and protuberances upon the grinding surfaces of the molares, are the points where ossification commences on these organs.

OSSIV'ORUS. From *os*, a bone, and *voro*, I devour. A particular kind of tumor mentioned by Ruysch, which causes the destruction of bone, and occurring in the thigh.

OS'TAGRA. From *os*, a bone, and αγρα, seizure. Forceps for cutting or removing portions of bone.

OSTALGI'TIS. From οστεον, a bone, and *itis*, inflammation. Ostitis. Inflammation of bone, accompanied by sharp lancinating pains.

OSTEAL'GIA. From οστεον, a bone, and αλγος, pain. Pain in a bone.

OSTEMPYE'SIS. From οστεον, a bone, and εμπυησις, effusion of pus. The occurrence of suppuration in the interior of a bone.

OSTEOCOL'LA. From οστεον, a bone, and κολλα, glue. Glue-bone; bone-binder. Petrified carbonate of lime; so called, from the supposition that it promoted the formation of callus between the extremities of a fractured bone.

OSTEOC'OPUS. Ostealgia.

OSTEODYNIA. Osteocopus.

OSTEOGENIA. Ossification; formation of bone.

OSTEOG'RAPHY. *Osteographia;* from οστεον, a bone, γραφειν, to describe. A description of the osseous system.

OSTEOL'OGY. *Osteologia;* from οστεον, a bone, and λογος, a discourse. A treatise on bones.

OSTEO'MA. An osseous tumor.

OSTEOMAL'ACIA. From οστεον, a bone, and μαλακος, soft. Mollities ossium; softness of bones.

OSTEON. A bone.

OSTEON'OSI. From οστεον, a bone, and νοσος, a disease. Diseases of the bones.

OSTEO-SARCO'MA. From οστεον, a bone, and σαρκωμα, a fleshy tumor. A tumor containing a mixture of bony and soft matter. Also, spina ventosa. See Jaws, morbid growths of.

Osteo-Sarcosis. Osteo-sarcoma.

OSTEOSIS. Ossification.

OSTEO-STEATO'MA. From οστεον, a bone, and στεαρ, fat. A tumor composed of bony and fatty matter.

OSTEOT'OMY. From οστεον, a

bone, and τεμνειν, to cut. The cutting of bone.

OSTERMAIER'S CEMENT FOR THE TEETH. See Cement for the Teeth, Ostermaier's.

OSTI'TIS. Ostalgitis.

OS'TIUM. A door, foramen, or opening.

OSTOIDEA SUBSTANTIA.—Tooth-bone. A name given by *Malpighi* to the osseous or dentinal part of a tooth.

OSTREA EDU'LIS. The oyster.

Ostrea Maxima. The scallop.

Ostreæ Testæ. Oyster shells.

OTAL'GIA. From ους, the ear, and αλγος, pain. Pain in the ear.

OTAL'GIC. A term applied to remedies for diseases of the ear.

OTEN'CHYTES. From ους, the ear, εν, into, and χυω, I pour. An ear syringe.

OTIC. *Oticus.* Pertaining to the ear.

Otic Ganglion. A small ganglion of the inferior maxillary nerve, at the inner margin of the foramen ovale of the sphenoid bone.

OTI'TIS. From ους, the ear, and *itis*, inflammation. Inflammation of the ear.

OTOG'RAPHY. *Otographia;* from ους, the ear, and γραφω, to describe. A description of the ear.

OTOL'ITHI. From ους, the ear, and λιθος, a stone. The calcareous substances found in the vestibule of the ear of the mammalia.

OTOL'OGY. *Otologia;* from ους, the ear, and λογος, a discourse. An anatomical treatise on the ear.

OTOPLAS'TY. *Otoplastice;* from ους, the ear, and πλασσω, to form. An operation for the restoration of a lost ear.

OTOT'OMY. *Ototomia;* from ους, the ear, and τεμνειν, to cut. The dissection of the ear.

OTOPYO'SIS. From ους, the ear, and πυον, pus. A discharge of purulent matter from the ear.

OTORRHŒ'A. From ους, the ear and ρεω, to flow. A discharge of matter from the ear, generally of a purulent nature.

OTTO OF ROSES. Oleum rosæ.

OUNCE. *Uncia.* Eight drachms, or the sixteenth part of a pound avoirdupois.

OUDET, J. L. Proofs of the continued increase of the Jaws and Teeth of Rabbits, considered in their connection with their application to the study of the organization of the Human Teeth, by. Paris, 1823.

OURON. Urine.

OVAL. *Ovalis;* from *ovum*, an egg. Round and oblong.

OVA'RIAN. Pertaining to the ovarium.

OVA'RIUM. From *ovum*, an egg. The ovary. In the female mammalia, the ovaria, are the secretory organs of the embryo. They are two oval bodies, situated, one on each side of the uterus, behind and a little below the Fallopian tubes.

OVARY. The ovarium.

OVATE. Oval, or egg-shaped.

OVEN, ENAMELLING. A small oven made of brick, sometimes used in enamelling porcelain teeth.

O'VIDUCT. *Oviductus;* from *ovum*, an egg, and *ductus*, a canal. The duct through which the ovum or egg passes.

OVIDUCTUS MULIEBRIS. The Fallopian tube.

OVIG'EROUS. From *ovum*, an egg, and *gero*, I bear. A term applied, in *Zoology*, to parts containing or supporting an egg.

OVIP'AROUS. *Oviparus;* from *ovum*, an egg, and *pario*, I bring forth. Animals which produce their young from eggs, outside of the body.

OVO-VIVIP'AROUS. From *ovum*, an egg, *vivus*, living, and *parere*, to bring forth. Oviparous animals, in which the process of incubation is completed in the body of the mother.

O'VULE. Ovulum. Diminutive of *ovum*, a little egg. In *Botany*, the rudimentary seed enclosed in the carpels of plants.

OVULUM. A small egg.

OVUM. From ωον, an egg. An egg. In *Physiology*, the capsule enclosing the prolific germ of animals.

OWEN, RICHARD. Odontography; or a Treatise on the Comparative Anatomy of the Teeth; their physiological relations, mode of development, and microscopic structure, in the vertebral animals, by. London, 1840-'45. This is the most comprehensive work that has ever been published upon the subject, and forms two imperial octavo volumes, one consisting of 168 beautiful plates, with their explanations.

OX'ALATE. A salt resulting from the combination of oxalic acid with a salifiable base.

OXALIC ACID. *Acidum oxalicum.* Acid of sorrel. An acid occurring in the form of an acid oxalate of potash in certain vegetable juices, as that of sorrel. It is also obtained by the action of nitric acid on sugar and starch.

Oxalic Ether. *Oxalate of ethyle.* A colorless, aromatic liquid.

OX'ALIS. The name of a genus of plants.

Oxalis Acetosel'la. Wood-sorrel.

OXAL'ME. From οξυς, acid, and αλς, salt. A mixture of vinegar and salt.

OXALU'RIA. Urine in which oxalates are formed.

OX'YD. *Oxydum;* from οξυς, acid, and ειδος, form. A compound of oxygen with an element or other body.

Oxyd of Carbon, Gaseous. Carbonic oxyd.

OXYALCO'HOL BLOW-PIPE.—See Blow-Pipe, Dr. Elliot's Compound Self-Acting.

OXYCHLORIC ACID. Perchloric acid.

OX'YCRATE. *Oxycratum;* from οξυς, and κραω, I mix. A mixture of honey and diluted vinegar.

OXYDA'TION. *Oxydatio.* The action by which a substance is converted into an oxyd; the act of combining with oxygen.

OXYDUM. Oxyd.

Oxydum Ferri Nigrum. Black oxyd of iron.

Oxydum Ferri Rubrum. Red oxyd of iron.

Oxydum Stibii Semivitreum. Glass of antimony.

Oxydum Stibii Sulphuratum. Crocus of antimony.

OXYG'ARUM. A composition of garum and vinegar.

OX'YGEN. *Oxygenium;* from οξυς, acid, and γενναω, to generate. A tasteless, inodorous, colorless element, always existing in a gaseous state when not combined with other ponderable matter; a supporter of combustion, combining with every combustible body, with all the metals, and most vegetable and animal substances; is indispensable to respiration, and is a component part of the air and water.

OXYGENATION. Oxydation.

OXY-HY'DROGEN BLOW-PIPE. An instrument for burning one volume of oxygen and one of hydrogen, which issues from a small tube or aperture. It produces a most intense heat.

OX'YMEL. From οξυς, acid, and μελι, honey. A syrup composed of honey and vinegar.

Oxymel Colchici. Oxymel of colchicum.

Oxymel Cupri Subacetatis. Oxymel of subacetate of copper.

Oxymel Scillæ. Oxymel of squill.

OX'YMURIAS HYDRARGYRI. Corrosive chloride of mercury. Bichloride of mercury; corrosive sublimate.

Oxymurias Potassæ. Chlorate of potash.

OXYMURIATE OF LIME. Chlorinated lime.

Oxymuriatic Acid. Chlorine.

OXYMYRRHINE. Myrtus communis.

OXYNOS'EMA. Acute disease.

OXYODIC. Iodic.

OXYO'PIA. Preternatural acuteness of vision.

OXYOSPHRE'SIA. Acuteness of the sense of smell.

OXYPHLEGMA'SIA. Violent inflammation.

OXYPHO'NIA. Shrillness of voice.

OXYPROTEIN. The substance which forms the buffa coat of inflamed blood.

OXYREG'MIA. Acid eructations.

OXYRRHOD'INON. A composition of vinegar and oil of roses.

OXYS. Οξυς. Acid; sharp; acute.

OXYSAC'CHARUM. Sugar and vinegar.

OXYSUL'PHURET. The sulphuret of a metallic oxyd.

OXYTAR'TARUS. Acetate of potash.

OXYU'RIS. *Oxyurus.* The ascaris or thread-worm.

OYSTER. Ostrea edulis.

Oyster Shells. Ostreæ testæ.

OZÆNA. From οζη, a stench. Ulceration of the pituitary membrane of the nose, and discharge of a purulent and exceedingly fetid matter. It is sometimes accompanied by caries of the bones. It is usually dependent on a syphilitic or scrofulus disease. The author once met with a case which had resulted from a diseased condition of the lining membrane of the maxillary sinus.

P.

P. A contraction of *pugillus*, a pugil, and of *pars*, or *partes*, a part or parts.

PAB'ULUM. Food; aliment.

Pabulum Vitæ. Literally, the food of life. Aliments. The animal heat was formerly so called.

PACHEUS. Dissertation on the Pain of the Teeth, by. Basil, 1707.

PACHYÆ'MIA. *Pachæmia;* from παχυς, thick, and αιμα, blood. Thickness of the blood.

PACHYBLEPHARO'SIS. *Pachablepharosis;* from παχυς, thick, and βλεφαρον, the eyelid. A morbid thickening of the eyelid.

PACHYDER'MA. *Pachydermata;* from παχυς, thick, and δερμα, the skin. Thick-skinned. An order of mammifera, embracing the thick-skinned animals, as the elephant, hippopotamus, rhinoceros, hog, &c.

PACHYN'TICA. Medicines which were formerly supposed to have the property of thickening the humors.

PAC'INIAN CORPUSCLES. The small tubercles formed on the nerves of the hand and foot.

PAD. A small cushion used to compress certain parts, and sometimes placed on splints, or between them and the fractured limb.

PÆ'DATROPHIA. From παις, a child, α priv. and τροφω, to nourish. Emaciation of children; tabes mesenterica.

PÆDIATRI'A. The treatment of the diseases of children.

PÆ'DO-NOSOLOGY. *Pædonosologia;* from παις, a child, νοσος, a disease, and λογος, a discourse. A treatise on the diseases of children.

PÆDOTRO'PHIA. From παις, a child, and τροφω, to nourish. The nourishment of children in accordance with the rules of hygiene.

PAIGIL. Primula veris.

PAIN. Dolor.

PAINT, INDIAN. Sanguinaria canadensis.

PAINTER'S COLIC. Colica pictonum.

PALÆONTOL'OGY. *Palæontologia;* from παλαιος, ancient, and *ontology*, the science of being. The science

of ancient beings or creatures; applied to the fossil remains of extinct animals and plants.

PALATAL. Palatine.

PALATE. *Palatum.* The roof of the mouth.

Palate, Artificial. See Obturators and Palates.

Palate Bones. Two bones situated at the back part of the superior maxillary bone, between its tuberosities and the pterygoid processes of the sphenoid bone. They are shaped precisely alike.

The palate bone is divided into three plates—the horizontal or palate, the vertical or nasal, and the orbital.

The palate plate is broad, and on the same line with the palate processes of the superior maxillary bone—its upper surface is smooth, and forms the posterior floor of the nostrils—the lower surface is rough, and forms the posterior part of the roof of the mouth—its anterior edge is connected to the palate process of the upper jaw, and its posterior is thin and crescentic, to which is attached the velum-pendulum palati or soft palate—at the posterior point of the suture, uniting the two palate bones, there projects backwards a process called the *posterior nasal spine,* which gives origin to the azygos-uvulæ muscle. The *vertical plate* ascends, helps to form the nose, diminishes the opening into the antrum by projecting forward, and by its external posterior part, in conjunction with the pterygoid processes of the sphenoid bone, forms the *posterior palatine canal*—the lower orifice of which is seen on the margin of the palate plate, and called the *posterior palatine foramen* which transmits the palatine nerve and artery to the soft palate; behind this foramen is often seen a smaller one passing through the base of the pterygoid process of this bone, and sending a filament of the same nerve to the palate.

The upper end of the vertical or nasal plate has two processes—the one is seen at the back of the orbit and called the *orbital* process, the other is posterior and fits to the under surface of the body of the sphenoid bone. Between these two processes there is a foramen, the *spheno-palatine,* which transmits to the nose a nerve and artery of the same name.

The palate bone articulates with six others, namely: the superior maxillary, inferior turbinated, vomer, sphenoid and ethmoid.

The structure of this bone is very thin, and consists almost entirely of compact tissue. Its development, it is said, takes place by a single point of ossification at the place of the union of the vertical, horizontal and pyramidal portions.

These bones are all more or less related with the bones of the head—of which eight compose the cranium and fourteen the face. Those of the cranium are one frontal, two parietal, two temporal, one occipital, one sphenoid, and one ethmoid. Those of the face are six pairs and two single bones—the pairs are, to wit: the two malar, two superior maxillary, two lachrymal, two nasal, two palatine and two inferior spongy. The vomer and inferior maxillary are the two single bones.

Palate, Soft. The velum pendulum palati.

PALATI TENSOR. The circumflexus palati.

PALATINE. *Palatinus;* from *palatum,* the palate. Belonging, or relating, to the palate.

Palatine Arteries. These are two, the *superior palatine,* and the *spheno-palatine.* The superior descends behind the superior maxillary bone, passes through the posterior palatine canal to the roof of the mouth, and supplies the palate, gums, and velum pendulum palati. It also sends off a small branch through the foramen incisivum to the nose. The *spheno-palatine* enters the back part of the nose through the spheno-palatine foramen, and is distributed upon the pituitary membrane.

Palatine Foramina. These are

two, an *anterior* and *posterior*. See Palate Bones.

Palatine Nerves. These are three, the *anterior*, *middle* and *posterior*. The *anterior* descends through the posterior palatine canal, passes forward through the hard palate, to which it is distributed, communicating with the naso-palatine ganglion and its branches. It also sends off several branches of the antrum and spongy bone. The *middle palatine nerve*, descending through the same canal as the posterior, supplies the soft palate, uvula and tonsils. The *posterior*, emerges from an opening behind the posterior palatine foramen, and is distributed to the hard and soft palate, gums and tonsils.

Palatine Organs The organs which enter into the formation of the hard and soft palate.

Palatine Organs, Defects of.—The nature and extent of the defects of the palatine organs are exceedingly various. They sometimes consist of a simple perforation of the vault of the palate, either in the centre or on either side of the median line; at other times, the loss of substance extends to the entire vault and velum. Nor is the loss of structure always confined to these parts; it sometimes extends to the anterior part of the alveolar border, and upper lip, constituting what is termed hare-lip.

The defects of the palatine organs may be divided into accidental and congenital. The first are caused by a pathological change of structure. The second, are the result of malformation or imperfect development of the parts. But from whatever cause they may be produced, their effects upon the voice, speech, mastication and deglutition are the same. These functions are all impaired by them, in proportion to their nature and extent. When they extend so far as to cause a complete division of the hard and soft structures, distinct utterance is wholly destroyed, and the acts of mastication and deglutition are greatly impaired and always performed with difficulty.

When the loss of substance is the result of disease, and extends so far as to establish a communication between the mouth and nasal fossæ, the defect can seldom be remedied in any other way than by means of an artificial obturator; and even when it is congenital, though the aid of surgery may very frequently be successfully invoked, the resources of art will often be required. When the defect is confined to the vault of the palate, and consists of a simple opening between the mouth and nasal cavities, these resources may always be successfully applied, and even when the loss of substance extends to the soft palate and anterior part of the alveolar ridge, a mechanical appliance may be so constructed, as to restore, in a great degree, the functions dependent upon the presence and integrity of the natural parts.

Accidental Defects.

Accidental lesions of the palatine organs are divided by M. Delabarre into three species. The first consists in perforations of the vault of the palate; the second, in perforations of the velum, and the third, in the destruction of the entire vault of the palate, or of a great portion of it. To this last, might also be added the destruction of the whole, or a large portion of the velum, as well as of the vomer, part of the alveolar border and turbinated bones.*

It has also been remarked, that lesions of the palate and velum, resulting from disease, differ from congenital defects.

The first most frequently perforates the side of the palatine vault, and communicates with only one nostril, whereas, the latter, as will presently be seen, occupies the centre of the arch, and penetrates both of the nasal cavities.

* Vide *Traite de la Partie Mecaique d l'Art du Chirurgien Dentiste*, t. 1, p. 294.

Congenital Defects.

Congenital defects of the palate, occupy the median line or palatine raphæ, and consist in a division of the osseous and soft textures, of greater or less extent. This division is sometimes confined to the vault of the palate; at other times the velum, anterior part of the alveolar arch and upper lip participate. It forms a communication with both nostrils, and when the malformation extends to the alveolar border, and upper lip, which is divided vertically in one, and sometimes in two places, it gives to the mouth a most disagreeable aspect. But hare-lip is sometimes met with when there is no imperfection of the osseous structures, and imperfections are often met with here when the lip is perfect. In some cases the cleft or fissure is more than three-fourths of an inch wide throughout the whole extent of the palate and velum, accompanied by an absence of the whole of that portion of the alveolar border which should be occupied by the four incisores; at other times the alveolar arch is divided in two places, leaving a portion between the lateral and central incisores, or one lateral and one central, after projecting more or less, and thus very greatly increasing the deformity. Although a double hare-lip, with two divisions of the alveolar border, is seldom met with without some defect of the palatine organs, cases do occasionally occur. Dr. Sims, a skilful and ingenious surgeon of Montgomery, Ala., describes a most interesting case of this kind, in vol. 5th, page 51, of the American Journal of Dental Science.

Congenital defects of the palate are sometimes accompanied by more or less deformity of the sides of the alveolar arch, and of the teeth. Sometimes the sides of the alveolar ridge are forced too far apart, and at other times they are too near to each other, while the teeth are either too large or too small, with imperfectly developed roots, and, generally, of a soft texture.

Want of coaptation, resulting from defect of formation in the palatine plates of the maxillary and palate bones, are the cause of congenital deficiencies of the parts in question.

Thus, it is seen, that the defects of the palatine organs which result from malformation, present as much diversity of character as do those which are produced by disease, or other accidental causes. Mr. Stearns of London, in a very able and highly interesting paper, published in the London Lancet, on Congenital Fissure of the Palate, in noticing their various anatomical peculiarities, divides them into three classes.

The first class embraces all the cases in which the fissure extends through the velum, palate, and maxillary bones, to the alveolar border, and, sometimes, "through the whole extent of the median symphysis." This form of fissure is the most extensive, and justly regarded as the worst, "is usually complicated with hare-lip."

In the second class, the bones of the palate are, "apparently entire, though the concavity of the arch may be somewhat greater than usual, and the fissure" extend a short distance into their "posterior margin." The lesion, in this case, is almost wholly confined to the velum palati.

The third class embraces those cases in which the fissure is confined to the soft parts, extending, perhaps, only a short distance up into the uvula. This form of fissure is, probably, less frequently met with than either of the preceding.

Functional Disturbances, resulting from Defects of the Palatine Organs.

The principal effects resulting from an absence of a portion of the palatine organs, are, an impairment of the functions of mastication, deglutition and speech. Distinct utterance is sometimes wholly destroyed by it, and mas-

tication and deglutition are often so much embarrassed as to be performed only with great difficulty. These effects are always in proportion to the extent of the separation or deficiency of the parts. But in noticing the effects which result from an absence of a portion of the palatine organs, we shall first speak of those that are produced upon the functions of mastication and deglutition.

Although the simple act of triturating the food, may not be materially impeded by the absence of a portion, however extensive, of the palatine organs, unless the natural relations of the teeth of the upper and lower jaws are changed, still the process is more or less interfered with, as substances taken into the mouth cannot be so readily managed as when the parts are in their natural state. They are constantly escaping from the control of the tongue and passing up into the cavity of the nose.

In cases of congenital defects of the palate and velum, it is difficult to conceive how, in infancy, the child manages to obtain from the breast of its mother or nurse, the food necessary for its subsistence; yet, even where the anterior part of the alveolar border, and a part of the upper lip is wanting, it does, in accordance with the suggestions of natural instinct, by means of a peculiar mechanical process, contrive to do it. The expedient to which it resorts for effecting this process is curious. The nipple, instead of being seized between the tongue, upper lip and gum of the superior alveolar border, is taken between its lower surface, and the under lip and gum of the inferior alveolar ridge, and in this way it manages to extract the nourishment necessary for its subsistence and growth. The tongue, as is remarked by M. Delabarre, is thus made to close the opening in the palate, and perform the office of an obturator. By the contracting of its lip and depressing its tongue, the milk is drawn from the breast of its mother or nurse. At this young and tender age, it is not conscious of the imperfection of its palate, and it is not, until the period arrives when it should begin to make its wants known by words, as is remarked by the author just mentioned, that it feels the importance of the functions of speech and begins to realize the misfortune with which it is afflicted.

But as the child arrives at this period, the mechanism of sucking, as M. Delabarre observes, is perfected, and ultimately applied to the mastication of solid aliments. "When chewed, it is conveyed between the tongue and movable floor, which serves for a point *d'appui* to it, and thence it is brought back between the teeth. Thus it is, that the complicated operation of mastication and deglutition is performed without the alimentary morsel getting into the nose; or, if this does sometimes happen, it is the result of accident." But in cases of accidental lesion of the palate, the individual has not the advantage, as the author just quoted observes, "of early infancy." Those who are afflicted with accidental lesions, no matter what may be their position and extent, "having," as our author says, "acquired the habit of eating, by placing the aliment on the tongue, can take no nourishment, without a part of it getting into the nose." When to this inconvenience is added a change in the natural relations of the teeth of the two jaws, mastication is rendered still more difficult and embarrassing. When this is the case, the tubercles of the teeth of one jaw, instead of being received into the depressions of those of the other, strike upon their protuberances, and cannot be made to triturate the food in as thorough and perfect a manner as is required for healthy and easy digestion. Thus, not only is the process of mastication rendered imperfect, but it is also more tedious.

The process of deglutition itself, so long as the velum and uvula are perfect, is not materially affected by a per-

foration simply of the vault of the palate, although much difficulty may be experienced in conveying alimentary and fluid substances to the fauces and pharynx. But when this curtain is cleft or partially or wholly wanting, it is rendered very difficult, for, by the contraction of the muscles of the pharynx, part of them are forced up into the nose. The reason of this will appear obvious, when we take into consideration the form and functions of this movable appendage. When its muscles are relaxed, it forms a slightly concave curtain; but in the act of deglutition, the muscles contract, raise the velum and close the opening from the pharynx into the nose. Thus, alimentary substances and fluids are prevented from escaping into the nose.

It matters not, therefore, whether the imperfection of the velum palati be the result of accident or disease, its effects upon deglutition are the same. In proportion as the lesion or deficiency is great, will this operation be rendered difficult and embarrassing. M. Delabarre mentions the case of an individual who, in consequence of an imperfection of the palate, could swallow no fluids without a part being returned by the nose. To obviate this inconvenience, he had to throw his head sufficiently far back to precipitate them into the œsophagus. This is an expedient to which others, thus affected, have been compelled to resort.

Imperfection of speech always results from an opening in the palate, for this gives to the voice a nasal twang, and renders the formation of some sounds impossible. The loss of the teeth, though never to the same extent, is productive of the same effect. But to fully comprehend the manner in which a lesion of the palate may affect the utterance of speech, it will be necessary to understand the agency which the several parts of the mouth have in the formation of articulate sounds.

Speech consists in the combination of sounds produced by the organs between the glottis and external opening of the mouth. The co-operation of several parts of the mouth are necessary for the formation of most sounds,* and hence, if any of these be defective or wanting, the power of forming such sounds is either partially or wholly destroyed.

Dr. Arnott, viewing the mouth as a vocal tube, divides it into three principal "*oral positions*," the first is at the external opening of the mouth, the second is behind the teeth where the tip of the tongue approaches the palate, and the third is where the body of the tongue approaches the palate, near the region of the throat, or back part of the mouth. The following table represents the three divisions, or "oral positions" of this tube.

Labial.	Palatal.	Guttural.	
P	T	K	Mute.
B	D L	G	Semi-mute.
M	N	*ng n*	Semi-vowel or nasal.
F	*th* S *sh*	H *ch*	Aspirate.
V	*th* Z J	*gh*	Vocal aspirate.
Pr	R	*ghr*	Vibratory.

According to the above parallelogram, six sounds or articulations, as indicated by the letters, may be made with the voice or breath, "as it passes through each of the three positions of the mouth." "First, a sudden and complete stoppage of the voice or breath—producing what may be called a *mute* articulation; viz. P, in the labial position; T, in the palatal; and K, in the guttural," &c. "Second, a sudden shutting, as in the last case, but the voice being allowed to continue until the part of the mouth behind the closure be distended with air. This produces the *semi-mutes*, B, D, and G (in its hard sound as in *pig* or *go*,) for

* *Muller's Physiology*, vol. 2, p. 1045.

the three positions," &c. "If the sides of the tongue be depressed after it has taken the position required, T or D, the sound L is produced," &c. "Third, the positions closed as for the mutes, while sound is allowed to pass by the nose. Thus arise the *semi-vowels* or *nasals*, M, N, NG, for the three positions. NG (as in *king*) is a simple sound, although our imperfect alphabet has no single letter for it." * * * "Fourth, breath only, (or whisper,) allowed to pass at the three oral positions nearly closed. Hence come the sounds which we call *aspirates*, viz. F, TH and S, and CH, (heard in the Scottish word *loch*;) the TH and CH are simple sounds," &c. "Fifth, using *voice* in the same manner as *breath* or *whisper* is used for the aspirates. This produces the sounds called *vocal aspirates*, viz. V, TH, Z, J, and GH," &c. "Sixth, shaking the approaching parts in the three positions,"* of the vocal tube. The vibratory sounds are produced in this way.

By leaving the mouth or vocal tube open, "so that the sound," as Mr. Stearns remarks, passing outwards, meets with no interruption until it arrives at the lips, which being simply closed so as to obstruct its final exit, we then have the letter P, which is therefore termed a *labial mute*. But if this obstruction is attended by a momentary accumulation of sound in the cavity behind the organ making the closure, so as to cause a slight distention, that would give a half mute, as B, instead of P. There is a similar difference between T and D, and also between K and G, as between P and B. In T and D, the necessary closure is made by bringing the edge of the tongue in contact with the edge of the gums of the upper teeth throughout its whole circumference. In K, the closure is made by carrying the root of the tongue against the soft palate, thus obstructing the passage of the voice almost at its starting point.*

Thus, it would seem, that the articulation of sound depends upon its interruption at one or other of the three oral positions mentioned by Dr. Arnot, and this interruption is effected by a mere mechanical process. Hence, it is easy to perceive, how a perforation or fissure of the palate may, by preventing this interruption, as Mr. Stearns says, "render the articulation of some of the letters impossible," and at the same time, "vitiate the character of all the others." This "indistinctness of utterance," says Mr. S., "is usually proportioned to the extent of the lesion. Thus, where the fissure extends as far as the alveolar processes, the patient loses several of the letters which another, with only a portion of the soft palate involved, is able to produce with considerable distinctness."

The exposition which Mr. Stearns has given of the "vocal phenomena attending the fissure of the palate" is so very clear and satisfactory, that the author would be glad to quote what he says upon the subject, but the limits assigned to this article will not permit him to do so. He would simply state, however, that after describing the manner in which voice and articulation are made, as well as the effects produced upon the latter by lesions of the palate, Mr. S. says, "In cases of fissure, particularly those of the more extensive kind, the movements of the tongue are comparatively limited, as the patient is instinctively aware that the very effort he should make in order to give letters their appropriate articulation, often serves to render his impediment more painful. So far, indeed, in some cases, is this inactivity of the organs persisted in, that speech becomes little else than the emission of a succession of vowel

* *Elements of Physic*, vol. 1, p. 504-5 and 6.

* *Observations on Congenital Fissure of the Palate with some remarks on Articulation and Impediments of Speech*, by Charles W. Stearns, Esq. Surgeon, London.

sounds, which, in lieu of receiving proper consonant adjuncts, are only made intelligible by the accompanying inflection, key, gesticulation, and expression of countenance, all of which are, more or less, the vehicles of thought."

With the limited action of the tongue, nearly all the muscles concerned in the formation of articulate sounds in a greater or less degree, as Mr. Stearns remarks, participates, while the muscles about the nose, as the compressor nasi, and depressor nasi, are violently contracted, for the purpose of closing the nostrils and preventing the escape of sound. This gives to the features a particularly disagreeable aspect.

For the methods of remedying defects of the palatine organs, see Staphyloraphy, Staphyloplasty, Obturator, Palatine, Artificial Palate and Obturator and Palate Plates.

Palatine Organs, Diseases of. In common with other parts of the body, the palate sometimes becomes the seat of various morbid phenomena, but the occurrence of disease here, is generally the result of constitutional causes, such as certain depraved habits of body. It is, perhaps, more frequently induced by secondary syphilis than any other cause, and when it is, its ravages are often truly deplorable. It may, however, result from the immoderate and protracted use of mercurial medicine, or a scorbutic, cancerous, scrofulous or rickety diathesis of the general system. Among the diseases liable to attack the palate, are tumors, caries and necrosis of the bones, ulceration of the mucous membrane, and inflammation, elongation and ulceration of the uvula. In consulting writers on the diseases of the palate, the author has been able to find but few who have treated on them at much length, and for the information which he has been able to obtain upon the subject, except that which he has derived from his own limited observations, he is principally indebted to Jourdain and Boyer. The first of these authors has devoted, in the first volume of his treatise on the surgical diseases of the mouth, about one hundred and forty pages, to the affections under consideration.

Tumors of the Palate.

The morbid growths of the palate are analogous to those of other parts of the mouth. A description of their various peculiarities, therefore, is not deemed necessary. See Jaws, morbid growths of. But with regard to the causes which are concerned in their production, there exist some diversity of opinion. They are supposed, by some, to be dependent upon a peculiar specific constitutional vice, as venereal, scorbutic, cancerous, scrofulous, &c., while others think they may occur in individuals in whom no such habit or vice exists. Local irritation, no doubt, is the immediate or exciting cause of the various morbid productions of the palate, but this, unless favored by some specific or peculiar constitutional tendency or cachectic habit of body, would not be likely to give rise to them. Thus, while the former would seem to be the exciting cause, the character assumed by the disease, is evidently determined by the latter.

Every habit of body or tendency to any particular form of diseased action may be regarded, too, as having a susceptibility to morbid impressions peculiar to itself. Hence, an irritant, which, in one case, might not be productive of any appreciable disturbance, might, in another, give rise to a morbid growth of a more or less malignant character—according to the habit of body or constitutional tendency of the individual.

The irritation produced by dead, loose, and diseased teeth, ulcers of the mucous membrane and necrosed bone, are, perhaps, among the most common of the exciting causes. Some may, perhaps, be disposed to question the agency of dental irritation in the production of a morbid growth of the

palate, but the fact is too well established to admit of doubt. Many well authenticated cases are on record which conclusively prove that diseased teeth are capable of exerting a morbid influence upon these parts. M. Guyard* reports the case of a woman, forty years of age, who had a cancerous excrescence of the palate, caused by the irritation produced by the superior incisores, and numerous examples of tumor and other diseases of the palate, resulting from the presence of diseased teeth, are given by Jourdain and other authors.†

But there are other causes, such for example, as salivary calculus, mucous engorgement of the maxillary sinus, acrid saliva, and mechanical injuries from blows, and hard substances taken into the mouth. Roche and Sanson, in their Theory and Practice of Medicine and Surgery, say, that "from the irritation produced by syphilitic ulcers, carcinomatous tumors nearly always follow.‡

Although tumors of the palate may sometimes spontaneously disappear on the removal of the exciting cause, the proper curative indication consists in their entire extirpation. When they are attached by a small base, this may be easily effected with a pair of scissors properly curved at their points, or by means of a ligature in the manner as directed for the removal of similar tumors of the gums. But when they are attached by a broad base, a curved bistoury is the most convenient instrument that can be employed, and, sometimes, it may be necessary to have two, a right and a left, or one for each side.

Boyer describes an operation which he performed for the removal of a hard, white, indolent tumor, of the size of a large nut, situated a little behind the middle of the palate, and which had occasioned the patient, who was a lady, no other inconvenience than an unpleasant sensation during mastication and deglutition. He excised the tumor with a bistoury, curved so as to fit exactly the vault of the palate, which he had made for the purpose. After having removed the tumor, he destroyed the membrane from which it had originated, with a rasp. The hemorrhage was suppressed with vinegar and water and pledgets of lint. The wound soon healed, and at the expiration of eight years, there were no signs of a reproduction of the disease.*

In the removal of tumors from the palate, as well as from other parts of the body, no portion should be left; as, in this event, a reproduction of the disease would be likely to occur, and more especially, if it be of a malignant character. The operation should be performed, too, before the tumor has acquired great size, or implicated in the diseased action, to a considerable extent, the neighboring structures.

There is always great danger when the morbid production is of a cancerous nature, however perfectly it may be removed, of its reproduction. To guard against this, as far as possible, the application of the actual cautery is recommended by many surgeons, not only for the purpose of causing an exfoliation of a portion of the superjacent bone, but also to arrest the hemorrhage, which generally follows operations of this sort. Boyer, who says he has performed the operation for the removal of tumors from the palate several times, frankly admits that he has never been successful where they were of a malignant character. But, notwithstand-

*Vide *Journal de Med.* tome xix, p. 361.

†Vide *Traite des Maladies Chirurgicale de la Bouche.*

‡Vide *Nouveaux Elements de Pathologie de Medico-Chirurgicale, ou precis Theorique et Pratique de Medecine et Chirurgie*, tome 4, p. 1011.

**Traite des Maladies Chirurgicales et des Operations, qui leur Convenient*, tome 6, p. 449.

ing the great liability there is of a reproduction of most morbid growths, this does not always happen, as is well attested by many cases on record, and from which it may be well to cite three or four.

Pierre Guyard reports in the Journal de Médecine, vol. xix, p. 361, and to which reference has before been made, the case of a woman, forty years of age, who had a cancerous excrescence of the palate, of many years standing, which weighed nine ounces. This excrescence was extirpated, and the patient restored to health.

The case of a man, forty years of age, affected with so large a tumor of the palate that he could take no nourishment, except in a fluid state, is reported by Varner. In this case, it was of a cartilaginous character, interspersed with osseous points, and the operation for its removal was also successful.*

Jourdain describes the case of a man, who, from the irritation produced by the roots of several decayed teeth, had a swelling of the upper lip and nose, and a tumor of the palate of the size of a pigeon's egg. A fistula, traversing the alveolar and maxillary border, extended from the superior lateral incisor to the first molar of the same side, from which a large quantity of matter was discharged. The teeth being troublesome, were removed. The discharge of matter soon ceased. He next removed the tumor from the palate, which exposed a portion of necrosed bone, which exfoliated in a few days, leaving an opening into the nose of the size of a large quill, through which fluids, taken into the mouth, readily passed. By the application of caustics, the sides of the opening were caused to granulate, and in six weeks it had entirely healed.

The same author mentions the case of a lady who had a tumor of the palate, caused by erysipelas. The last named disease having extended to the lips, nose and vault of the palate, caused in the last mentioned place an ulceration, from the centre of which grew a small fungous tumor. This was removed, and a portion of the bone, which was exposed, was found to be in a necrosed and partially exfoliated condition. This was extracted with an excavator, and, under proper treatment, the patient soon recovered.

In presenting the foregoing cases, the author has not thought it necessary to give any thing more than the important facts connected with each. A full translation of the reports would occupy more space than he wishes to devote to this particular subject.

It is seldom that the operation for the removal of tumors of the palate are followed by as favorable results as furnished by the foregoing cases. If it were necessary, many examples of tumors of the palate, which were attended with fatal effects, might be cited. Jourdain mentions one given by M. Plater, of a cancerous tumor of the palate, caused by ulceration of the throat and uvula.

Both before and after the operation, such general or constitutionol treatment as may be indicated by the habit of body or vice under which the patient may be laboring, should be adopted. If of a scorbutic or scrofulous habit, or affected with a syphilitic disease, suitable remedies should be prescribed, and when practicable, such local irritants as may have acted as an exciting cause should be removed.

Caries and Necrosis of the Bones of the Palate, and Ulceration of the Mucous Membrane.

The bones of the palate sometimes become the seat of caries and necrosis, causing ulceration of the subjacent soft parts, and the destruction of a greater or less portion of the structures which separate the cavities of the mouth and

* Vide *Traite des Maladies Chirurgicale de la Bouche*, t. 1, p. 427.

nose. Although these effects are of more frequent occurrence than tumors, they are less dangerous in their consequences. Commencing with inflammation and suppuration of the periosteal tissue, caries and necrosis of the bones, accompanied by ulceration of the subjacent mucous membrane, soon supervenes, and, ultimately, exfoliation takes place, when an opening of greater or less size, between the buccal and nasal cavities, is established.

During the progress of the disease, a fetid sanies is continually discharged, from one or more fistulous openings, into the mouth and sometimes the cavities of the nose, rendering the condition of the unhappy sufferer exceedingly loathsome and distressing. The progress of the disease is often slow, continuing, not unfrequently, for weeks, months, and in some cases, even years, destroying all the pleasures of life, and rendering existence itself a burden. A case of this kind was recently introduced into the infirmary of the Baltimore College of Dental Surgery, which is noticed at some length, in an article on the means employed for remedying defects of the palatine organs. See Obturator and Palate Plates.

Dr. B. B. Brown, surgeon dentist of St. Louis, Mo., describes a very interesting case of the destruction of a large portion of the palate plates of the superior maxillary and palate bones, accompanied by the loss of the left lateral and central incisores.*

The ravages of caries and ulceration of the palate are sometimes so great that the palatine bones, the palate plates of the superior maxillary, the vomer, turbinated and nasal bones, together with the velum and uvula, are entirely destroyed, but when they are thus extensive, they are seldom arrested except with the life of the patient.

The ulcerative process of the soft parts, when resulting from caries of the bones, is frequently participated in by the pituitary membrane lining the floor of the nasal fossæ; it does sometimes happen, however, that this remains unaffected. A case of this kind, and to which the author will hereafter have occasion to refer, is related by Jourdain.

But ulceration of the mucous membrane, lining the vault of the palate, often occurs while the superjacent bones are in a healthy condition. It is often caused by inflammation and ulceration of the velum and uvula, whether resulting as an effect of secondary syphilis or from malignant ozæna produced by other causes. But from whatever cause the ulceration may be produced, it may ultimately give rise to caries and necrosis of the bones. It is, however, more frequently an effect, than a cause, of caries of the osseus structures of these parts.

As in the case of tumors of the palate, caries, necrosis and ulceration of these parts are the result of local irritation and certain habits of body, or constitutional vices. The immediate or exciting cause is local irritation, but the extent of the effects resulting from such irritation is, as has been frequently stated before, in proportion to the susceptibility of the body to morbid impressions. The local irritants are the same as those which have been already mentioned, namely, dead and loose teeth, roots of teeth, salivary calculus, mechanical injuries, acrid humors, &c. The case of a lady of irreproachable character, is related by Jourdain, in whom a scratch on the palate with a fish-bone, caused a tumor, which suppurated and degenerated into an ulcer with hard elevated edges and a fungus in the middle.* A case, in which effects similar to these, and produced by the same cause, was mentioned to the author a short time

* Vide *Am. Jour. Dent. Sci.*, vol. 6, p. 236.

* Vide *Traite des Maladies Chirurgicales de la Bouche*, tom. 1, p. 407.

since by Dr. Cone. Local irritation, unquestionably, has much to do in the production of the diseases under consideration—more than many seem to imagine or are willing to admit. Most writers are of the opinion that they are wholly caused by some constitutional vice, and nearly always by the venereal, but that this opinion, to some extent at least, is erroneous, will be fully proven by some facts which will be presented when we come to speak of the treatment of these affections.

In the treatment of caries of the bones of the palate, it is important to ascertain if the patient be laboring under any constitutional vice which may have contributed to the disease, and the local irritants concerned in giving rise to it. If the inflammation from which it resulted was caused by mechanical irritation, the irritants should, at once, be removed. If decayed, dead or loose teeth be suspected as having had any agency in its production, they should be immediately extracted, but so long as any portions of decayed or necrosed bone remains, it is needless to say, the ulcerations or fistulous openings in the soft parts cannot be healed. These, as soon as they have become sufficiently exfoliated, should be detached and removed, but in doing this it may be necessary to increase the size of the external opening. During the process of exfoliation, the mouth should be frequently gargled with astringent and detergent lotions, for the purpose of neutralizing the odor of the offensive matter which is being continually discharged.

Suitable constitutional remedies should, at the same time, be prescribed. As in the case of tumors, if the patient be laboring under a scorbutic, scrofulous or venereal diathesis of the general system, the indications should be properly fulfilled. But before instituting any general treatment, the physician should be well assured that his diagnosis is correct. A venereal vice is sometimes suspected when none exists, as is shown by the following brief summary of the history of a case related by Jourdain.

The subject of this case was a man who had a swelling which occupied the whole of the left side of the vault of the palate, from which there had been a fistulous opening for a long time. The edges were hard and indurated. Venereal vice was suspected as the cause, and for which disease, treatment was proposed, but the patient not being willing to submit, Jourdain was consulted, who advised the removal of the roots of three or four teeth in the vicinity of the disease. This operation was performed, and the fistulous opening at the same time enlarged, when the bone was found to be in a carious condition, but with little other treatment a complete cure was soon effected.*

That the effects resulting from dental irritation may extend to the palate, is shown by the following particulars of a case taken from the history of one given by the last named author.

A man called upon Jourdain for advice, in relation to a tumor of the vault of his palate. Upon examination, a sensible fluctuation was perceived; on being pressed, fetid pus escaped from a small fistulous opening between the right lateral incisor and canine tooth, and also from the socket of the second bicuspis, which had been extracted a short time before. The opening from the alveolus of this tooth communicated with the first mentioned fistula and the disease in the palate. Notwithstanding these two outlets for the escape of the matter, it increased in the palate. Various means were resorted to for the cure of the disease, but without success. The nasal fossæ, by the accumulation of matter, were partially closed, the alveoli of the lateral incisor, cuspidatus and first bicuspis became

* Vide *Traite des Maladies, Chirurgicale de la Bouche*, tom. 1, p. 406.

necrosed, and the teeth loosened, which were extracted. The alveoli exfoliated, the tumor of the palate was opened, when the bones of the palate and maxillary alveolar borders were found in a necrosed and partially exfoliated state. These were removed without much difficulty, and left an opening through to the pituitary membrane which lined the floor of the nasal fossæ. These portions of bone having been removed, the parts soon healed.*

In the last case, it is probable that the second bicuspis of the affected side, was not extracted until an abscess had formed at the extremity of its root, and that the matter, instead of escaping externally, had effected a passage through the inner wall of the alveolus and thence between the palate plate of the superior maxillary and mucous membrane to near the median line, where it had accumulated, produced the tumor mentioned by Jourdain, and ultimately made a passage for its escape between the lateral incisor and cuspidatus.

But when favored by a cachectic habit of body, or venereal vice, the effects are often more destructive, and require constitutional as well as local treatment.

Ulceration of the palatine mucous membrane, may occur without caries of the superjacent bone; it may result as a consequence of ulceration or other disease of the velum or uvula, or from some mechanical injury inflicted upon the parts. When it is of a simple nature, cooling and astringent gargles, preceded by mild aperients, will generally suffice for its cure. If it is dependent upon a specific constitutional tendency or vice, appropriate general remedies should be employed. But with regard to the treatment of ulcers of the palate, we shall have occasion to speak when we come to treat of the diseases of the velum and uvula.

* Vide *Traite des Maladies Chirurgicale de la Bouche*, tom. 1, p. 397.

Inflammation and Ulceration of the Velum and Uvulum.

The velum palati and uvula sometimes become the seat of inflammation, accompanied by pain, increased redness, difficult deglutition and articulation of speech. Most frequently it terminates in resolution, but sometimes in ulceration, and at other times in gangrene. Where resolution is the termination, it gradually subsides, after having continued for a greater or less length of time. When by ulceration, one or more white or ash colored spots appear upon the velum and uvula, after it has continued for a certain period, and when by a gangrene, the part after having assumed a dark purple or almost black color, sloughs off. This latter termination, fortunately, rarely happens.

As a consequence of the inflammation, the uvula sometimes becomes tumefied and elongated; at other times it becomes elongated when there is no apparent tumefaction. In the latter case, it is vulgarly termed a "falling of the palate." Most frequently when it is elongated, its thickness is at the same time increased. There is then an increase of redness, but when there is elongation, without an increase of size, resulting simply from relaxation of the part, its color, instead of being heightened, is often diminished, presenting a whitish or semi-transparent appearance. This description of elongation is termed serious tumefaction of the uvula. It is seldom accompanied by pain.

When the uvula becomes so much elongated as to rest upon the tongue, it causes irritation, difficult deglutition, oftentimes a sense of suffocation, the frequent expulsion of mucus from the throat, and sometimes a disagreeable cough.

Ulcers of various kinds sometimes attack these parts, though they are less subject to them than are other parts of

the mouth, the fauces and tonsils. Sometimes the ulcers are of a simple nature, at other times they are aphthous, scrofulous, scorbutic, venereal or cancerous, according to the specific poison or diathesis which has given rise to them. When the ulcer is not dependent upon constitutional causes, it is termed a simple ulcer, and is nothing more than a granulating sore which secretes healthy purulent matter.

Aphthous ulcers at first appear in the form of whitish or transparent vesicles, which break, and are ultimately transformed into ulcers, either surrounded by a slightly elevated edge of a reddish color, or spread and unite with each other. The former are termed *discrete*, and the latter confluent aphthæ. But ulcers of this kind generally appear in other parts of the mouth and fauces before they attack the velum and uvula of the palate.

The velum and uvula are, perhaps, more subject to venereal than to any other kind of ulcers. The characteristics of these are, sometimes, very similar to ulcers which result from some other specific constitutional vice, and their character can only be positively determined by ascertaining all the other circumstances connected with the history of the case. They are generally preceded by ulceration of the throat, dull heavy pain, especially at night, increased redness of the parts, swelling of the uvula, and difficult deglutition. They generally have a whitish, dirty gray, or ash colored appearance, with slightly elevated and irregular margins, and secrete a thin ichorous matter, having a very fetid odor. The surrounding parts are preternaturally red, and sometimes present an almost purple appearance. At other times the ulcers appear in the form of aphthous specks, followed by sloughing of the surrounding parts. Sometimes the ulcers attack the posterior side of the velum and uvula first, where they commit extensive ravages before they appear anteriorly. From these parts they often extend to the vault of the palate, but more frequently when they appear here, the periosteal tissue and bones are diseased before ulceration shows itself in the mucous membrane.

Ulcers of the velum and uvula sometimes result as a consequence of a protracted and immoderate use of mercury. When they result from this cause, they are preceded by a copperish taste in the mouth; increased flow and viscidity of the saliva; tumefaction and increased sensibility of the gums, looseness of the teeth; a peculiarly disagreeable odor of the breath, general debility and emaciation, and sometimes diarrhœa. The gums, edges of the tongue, mucous membrane about the angles of the jaws, inner surface of the cheeks, and throat, ulcerate before the velum and uvula are attacked.

The velum and uvula are sometimes the seat of other bad conditioned ulcers, such as the cancerous, scrofulous, &c., which it is not deemed necessary to describe.

Inflammation of the velum and uvula most frequently result from irregular exposure to cold and moisture, though it may sometimes be produced by local irritation, as mechanical injury, acidity of the gastric and buccal fluids. Ulceration of the parts may result from the same causes, but the character which the ulcer assumes is determined by the habit of body, or peculiar diathesis of the general system. Elongation of the uvula is caused either by inflammation and general enlargement, a relaxation of the parts, or serous infiltration of its apex.

For simple inflammation of the velum and uvula, unaccompanied by fever or other general constitutional effects, little else will be required than gargling the throat with an infusion of capsicum, sweetened with honey.—When the inflammation is severe, and the vessels have the appearance of being distended, advantage may be de-

rived from scarifying the parts, or the application of leeches.

But when the uvula is so much elongated as to rest upon the tongue and cause a sensation of suffocation or a troublesome cough, if it does not yield to exciting and astringent gargles, it may become advisable to remove a portion of it.

For this operation, though an exceedingly simple one, a variety of instruments have been invented. The best, however, which the author has seen, is the one invented a few years ago by Dr. S. P. Hullihen, of Wheeling, Va. This instrument, although very simple in its construction, is an exceedingly useful one, for, at the same time it cuts the uvula, it secures the excised extremity, and prevents it from falling.

For a simple ulcer of the velum or uvula no other treatment will be required than to gargle the throat occasionally with some gently stimulating and astringent lotion; the one recommended for inflammation of these parts, may generally be employed with advantage.

In the treatment of venereal or syphilitic ulcers of the velum and uvula, little advantage will be obtained from local remedies. They can only be cured by appropriate constitutional treatment, such as is prescribed in works on general medicine and surgery. To these, therefore, the reader is referred for information upon this subject.

In cases of mercurial ulcers, it is desirable that two or three liquid evacuations from the bowels should be procured daily. For this purpose, sulphate of magnesia or sublimed sulphur should be administered night and morning. The mouth should, at the same time, be gargled six or eight times a day with some gently astringent lotions. A weak solution of the sulphate of zinc, or alumina, sweetened with honey, may sometimes be advantageously employed, but more benefit perhaps will be derived from the use of a solution of the chloride of lime.—When the pain is so severe as to prevent rest, opium should be prescribed. The diet of the patient, for the most part, should consist of farinaceous substances, and after the ulcers have began to heal, milk, light soups, &c., may be recommended.

In the treatment of scirrhous and other ill-conditioned ulcers of the velum and uvula, dependent upon a cachectic habit of body, it is necessary that the constitutional indications should be properly fulfilled, and that the vitiated action of the disease should be changed by the application of local irritants, such as caustics. The application of the actual cautery has been found to be more efficient in changing the condition of ulcers of this sort and exciting a healthy action in them, than any other means which have been employed.

For cancerous ulcers, it has been found necessary to remove a greater or less portion of the velum and uvula, and even this operation has seldom proved successful, for the disease, after a greater or less length of time, has reappeared in some of the neighboring parts.

PALATO-PHARYNGEUS. A muscle occupying the posterior lateral half arches of the palate, extending from the soft palate behind, near the uvula, as its origin, and is inserted into the pharynx, between the middle and lower constrictors, and into the thyroid cartilage. Its use is to draw down the velum, and raise the pharynx.

PALA'TUM. The palate.

Palatum Durum. The hard palate.

Palatum Molle. The soft palate.

PALDAMUS. Dissertation on the Diseases of the Teeth, by. Halle, 1799.

PALLAD'IUM. A metal which resembles platinum in color, and lustre, but is harder. It is ductile and malleable, and has been used by some dentists for bases for artificial teeth.

PAL'LIAL. From *pallium*, a cloak.

Pertaining to the mantle or cloak of the mollusca.

PALLIA'TIVE. *Palliativus;* from *pallio,* to dissemble. In *Medicine,* any thing which relieves a disease, but cannot effect a cure.

PAL'LOR. From *palleo,* to be pale. Paleness.

Pallor Virginum. Chlorosis.

PALM. *Palma.* The inside of the hand.

PALMA. The palm of the hand. Also, a palm tree.

Palma Christi. The castor oil plant.

PALMAR. *Palmaris;* from *palma,* the palm of the hand. Belonging, or relating, to the palm of the hand.

Palmar Aponeuro'sis. A strong expansion formed by the tendon of the palmaris brevis, and the anterior annular ligament of the carpus, and covering the palm of the hand.

Palmar Arches. Two arches formed in the palm of the hand—one by the radial artery, which is called the *deep-seated,* and the other by the ulnar artery, which is called the *superficial palmar arch.*

PALMARIS BREVIS. A small flexor muscle of the hand, situated between the wrist and little finger.

Palmaris Longus. A small muscle of the forearm which arises from the inner condyle of the os humeri, and is inserted into the annular ligament of the carpus and palmar fascia.

PALMATE. *Palmatus.* Shaped like a hand.

PALMOS. *Palmus.* Palpitation of the heart.

PALMULA. A date.

PALO DE VACA. The milk tree of South America.

PALPA'TION. From *palper,* to feel. The sense of touch. Also, manual exploration of disease.

PAL'PEBRA. From *palpitare,* to palpitate, from its frequent motion. The eyelid.

PALPEBRARUM APERIENS RECTUS. Levator palpebræ superioris.

PAL'PEBRAL. Belonging, or relating, to the palpebra.

Palpebral Arteries. The arteries distributed to the eyelids.

Palpebral Nerves. The nerves of the eyelids.

PALPEBRALIS. The orbicularis palpebrarum.

PALPITA'TION. *Palpitatio;* from *palpito,* to beat, leap, or throb. Preternaturally strong or frequent pulsation of the heart.

PAL'PUS. Palpitation of the heart.

PALSY. Paralysis.

Palsy, Lead. Paralysis of the hands caused by lead poison.

Palsy, Mercurial. Mercurial erethrismus.

PALUS SANCTUS. Guaiacum wood.

PALUS'TRIS. *Palustrine.* Belonging, or relating, to a marsh, swamp, or lake.

PAMPIN'IFORM. *Pampiniformis;* from *pampinus,* a tendril, and *forma,* a likeness. Having the form of, or resembling, a tendril. In *Anatomy,* applied to the spermatic cord.

PAMPLE'GIA. *Panplegia;* from παν, all, and πληγω, I strike. Paralysis of the whole body.

PANACE'A. From παν, all, and ακεομαι, I cure. A pretended universal remedy.

Panacea Dulcis Holsatiæ. Sulphate of potash.

Panacea Lapsorum. Arnica montana.

Panacea Mercurialis. Calomel.

Panacea Vegetabilis. Saffron.

PANA'DA. Bread boiled in water to the consistence of pap.

PANARIS. Paronychia.

PANARY. Pertaining to bread.

PA'NAX. The name of a genus of plants.

Panax Quinquefo'lium. Ginseng.

PANCHYMAGO'GUS. From παν, all, χυμος, juice, and αγω, to expel. An

epithet applied, by the ancients, to a medicine which they supposed capable of purging all the humors.

PAN'CREAS. From παν, all, and κρεας, flesh. A glandular organ situated in the epigastric region of the abdomen under the stomach.

PANCREAT'IC. *Pancreaticus.*—Belonging, or relating, to the pancreas.

Pancreatic Duct. A small, white duct, passing through the pancreas to the duodenum, into which it discharges its contents.

Pancreatic Juice. A fluid secreted by the pancreas, resembling the saliva, and conveyed by the pancreatic duct to the duodenum, to be mixed with the chyle.

Pancreatic Sarcoma. A tumor occurring in lymphatic glands and in the cellular substance, of the color and consistence of the pancreas.

PANCREATI'TIS. Inflammation of the pancreas.

PAN'CREATOID. Resembling the pancreas.

PANCRENE. The pancreas.

PANDALITIUM. A whitlow.

PANDEM'IC. From παν, all, and δεμος, people. An epidemic which attacks the whole population of a place.

PANDICULA'TION. *Pandiculatio;* from *pandere*, to stretch out. Stretching, such as occurs at the commencement of certain paroxysms of fever.

PAN'ICUM. The name of a genus of grasses.

Panicum Ital'icum. Italian panic grass. Indian millet.

Panicum Milia'ceum. The common millet.

PANIS. Bread.

Panis Cuculi. Wood-sorrel.

Panis Porcinus. Sow bread.

PANNIC'ULUS. From *pannus*, cloth. A term, in *Anatomy*, applied to adipose membrane, and to subcutaneous muscles of quadrupeds and birds.

PAN'NUS. A piece of cloth. In *Surgery*, a tent for a wound. Also, pterygium, and it is sometimes applied, to an irregular nævus or mark upon the skin.

Pannus Hepaticus. Diffused ephelis, followed by disquamation of the skin.

Pannus Lenticularis. Ephelis lenticularis.

PANO'CHIA. Bubo.

PANOPHO'BIA. From παν, the god Pan, a Greek deity, and φοβος, fear. Melancholy, characterized by idle fears.

PANOPHTHALMI'TIS. From παν, all, and *ophthalmitis*, inflammation of the eye. Inflammation of the whole eye.

PANSY. Viola tricolor.

PANT'ING. Dyspnœa; difficulty of breathing.

PANUS. A weaver's roll. Also, a glandular swelling.

PAPA'VER. The name of a genus of plants.

Papaver Album. *Papaver somniferum.* The white poppy.

Papaver Nigrum. The white poppy, with black seeds.

Papaver Officinale. Papaver somniferum.

Papaver Rhœas. *Papaver erraticum.* The red poppy.

Papaver Somnif'erum. The white poppy, from which opium is obtained.

PAPAW. The carica papaya.

PAPIL'LA. From *pappus*, down. The nipple of the breast. The term *papillæ*, is also applied to the fine terminations of a nerve, and to small prominent eminences on the surface of certain parts, as the skin and mucous membrane.

PAPILLÆ CALYCIFORMES.—The lenticular papillæ of the tongue. See Tongue,

Papillæ, Dental. The small conical eminences at the bottom of the dental groove, which constitute the germs of the teeth in the earliest perceptible stage of their formation. See Teeth, development of pulps and sacs of.

Papillæ Medullares. Small eminences on the medulla oblongata.

Papillæ of the Kidney. The

small projections of the apices of the cones of the tubular substance of the kidney, into the pelvis of this organ.

Papillæ of the Tongue. See Tongue.

PAPILLO'SUS. Pimpled.

PAP'PUS. The hair on tne middle of the chin. Also, seed-down.

PAP'ULA. A pimple; a small acuminated elevation of the cuticle, with an inflamed base, but containing no fluid, nor tending to suppuration.

PAPULÆ. Pimples; the first order of cutaneous diseases in Dr. Willan's arrangement.

PAPYRA'CEOUS. From παπυρος, paper. Of the consistency of paper.

PAR. A pair.

Par Vagum. The eighth pair of nerves.

PARA-. Παρα, near, about. Used as a prefix, and signifying, resemblance, diminution, or defective.

PARACENTE'SIS. From παρακεντεω, I pierce through. The operation of tapping in ascites and ovarial dropsy, for the evacuation of the water.

PARAC'ME. Decline.

PARACOE. Dullness of hearing.

PARA'COPE. A slight delirium, such as sometimes occurs in febrile diseases.

PARACU'SIS. From παρα, wrong, and ακουω, to hear. Confused or imperfect audition; depraved hearing.

Paracusis Acris. Painfully acute hearing.

Paracusis Imagina'ria. Hearing imaginary sounds.

Paracusis Imperfecta. Deafness.

PARACYNAN'CHE. Cynanche.

PARAGEU'SIS. From παρα, badly, and γευω, *gustum præbeo*. Depraved taste.

PARAGLOS'SA. A swelling, or prolapsus of the tongue.

PARALY'SIS. From παραλυω, I relax. Palsy. A loss or diminution of the power of voluntary motion, in one or more parts of the body. Four species of paralysis are enumerated by Dr. Cullen; 1. *Paralysis partialis*, or partial palsy. 2. *Paralysis hemiplegica*, or palsy affecting one side of the body longitudinally. 3. *Paralysis paraplegica*, or palsy of one half of the body, taken transversely. 4. *Paralysis venenata*, when produced by the sedative effects of poison.

Paralysis Agitans. Shaking palsy.

Paralysis, Bell's. Palsy of the face arising from a lesion of the portio dura of the seventh pair of nerves.

Paralysis Rachialgia. Colica pictonum.

Paralysis Spinalis. Paralysis paraplegica.

PARALYTIC STROKE. A sudden attack of paralysis.

PARAME'NIA. From παρα, badly, and μην, the menses. Disordered menstruation.

PARAME'RIA. The inner part of the thigh.

PARAME'SOS. The annular finger.

PARAPHIMO'SIS. From παρα, about, and φιμοω, I bridle. Contraction of the prepuce behind the corona, in such a way as to prevent its return over the glans.

PARAPHO'NIA. From παρα, wrong, and φωνη, sound. Change of voice; impaired articulation of sounds.

PARA'PHORA. Slight delirium.

PARAPHRENE'SIS. Delirium; also, paraphrenitis.

PARAPHRENI'TIS. From παρα, near, and φρενες, the diaphragm. Diaphragmatitis.

PARAPHRO'NIA. Delirium.

PARAPHRO'SYNE. Delirium; mania.

Paraphrosyne Temulenta. Delirium tremens.

PARAPLE'GIA. Paralysis of the lower half of the body.

PARAPLEURI'TIS. Pleurodynia.

PARAP'OPLEXY. *Parapoplexia;* from παρα, diminution, and αποπλεξια, apoplexy. False, or slight apoplexy.

PARAP'SIS. From παρα, defective, and απτομαι, I touch. A vitiated or impaired sense of touch. A generic term, employed by Dr. Good, for disorders of the sense of touch.

PARARTHREM'A. A partial luxation.

PAR'ASITE. *Parasitus;* from παρα, near, and σιτος, corn, food. A plant or animal that is parasitical.

PARASIT'ICAL. *Parasiticus;* from παρασιτος, a parasite. A term applied to animals which live in, or on, the bodies of other animals, as worms, polypi, &c. also, to plants that derive their nourishment from other plants, as the mistletoe.

PARASPA'DIA. From παρα, near, and σπαω, I draw. An opening of the urethra at the side of the penis.

PARAS'TATES. From παριστημι, to stand near. Situated near together. Formerly applied to the epididymis, to the prostrate gland, and to the commencement of the vas deferens.

PARASTATI'TIS. Inflammation of the epididymis.

PARASTREM'MA. From παραστρεφω, I distort or pervert. Convulsive distortion of the face or mouth.

PARATH'ENAR. From παρα, near, and θεναρ, the sole of the foot. Applied, by Winslow, to a portion of the abductor of the little toe, and to the flexor brevis of the same. The first he called *parathenar major*, and the other, *parathenar minor*.

PAR'ATROPHIA. Imperfect nutrition.

PAREGOR'IC. *Paregoricus;* from παραγορεω, to mitigate. An anodyne.

PAREGORIC ELIXIR. A camphorated, aromatic tincture of opium.

PAREIA. The cheek.

PAREI'RA BRAVA A plant, native of South America and the West Indies, having a sweetish, slightly rough and bitter taste.

PARENCEPH'ALIS. The cerebellum.

PAREN'CHYMA. From παρεγχυω, to suffuse. The texture of glandular organs, as that of the liver, kidney, &c. and the spongy tissue which connects parts together. Also, the pulp, which forms the base of the soft parts of plants.

PAR'ESIS. A slight paralysis.

PARI'ETAL. *Parietalis;* from *paries*, a wall. A name given to two of the bones of the cranium.

PARIETAL BONES. Two flat qudrangular bones, concave below, and convex above, forming the sides and upper part of the cranium.

PARIETA'RIA. The name of a genus of plants.

PARIETARIA OFFICINA'LIS. The wall pellitory.

PARI'ETES. The plural of *paries*, a wall. Applied to parts which form enclosures.

PARIS. The name of a genus of plants.

PARIS QUADRIFO'LIA. The herb paris, or true love.

PARISTH'MIA. From παρα, and ισθμος, the throat. The parts forming the fauces; also, inflammation of the fauces.

PARKHURST, JABEZ. Jabez Parkhurst, late surgeon dentist, of New York, was born in Newark, New Jersey, October 4, 1764. After receiving a thorough classical education, he was variously employed as a school teacher, merchant, dentist, and legislator, until 1807, when, after having attended lectures on anatomy and surgery and read the best works that were at that time to be had on the diseases of the mouth, he commenced the practice of dental surgery in New York, where he soon established the reputation of a skilful operator, which he enjoyed to the day of his death. His amiable and winning manners and high literary attainments secured for him the friendship of all who knew him. He died of typhus fever, August 29, 1829.

PARODON'TIDES. From παρα, near, and οδους, a tooth. Parulis. See Jaws, morbid growths of.

PARONIR'IA. From παρα, near, and ονειρον, a dream. Disturbed dreaming, and sleep.

PARONY'CHIA. From παρα, near, and ονυξ, the nail. A whitlow, or felon, of the finger.

PAROP'SIS. From παρα, badly, and οψις, sight. A generic term, employed by Dr. Good, for disorders of vision.

PAROPSIS ILLUSORIA. False sight; perverted vision.

PAROPSIS LATERALIS. Lateral vision; skew-sightedness.

PARORCHID'IUM. From παρα, near, and ορχιδιον, a testicle. Malposition of one or both testicles.

PAROR'CHIDO-ENTEROCE'LE. Intestinal hernia with displacement of the testicle.

PAROS'MIA. Perverted smell.

PAROS'TIA. Imperfect ossification.

PAROTIDE'US. The parotid gland.

PAROTID GLAND. *Glandula parotidea; parotis.* The largest of the salivary glands, situated near the ear. It is of an irregular form and fills all that space between the ramus of the inferior maxilla and the mastoid process of the temporal bone, and as deep back, and even behind the styloid process of the same bone. Its extent of surface is from the zygoma above, the angle of the lower jaw below, and from the mastoid process and meatus externus behind, to the masseter muscle in front, overlapping its posterior portion.

This gland is one of the conglomerate order, and consists of numerous small granular bodies connected together by cellular tissue, and each of which may be considered a small gland in miniature, as each is supplied with an artery, vein and secretory duct.

The gland thus formed presents on its external surface a pale, flat, and somewhat convex appearance.

It is covered by a dense strong fascia extending from the neck, attached to the meatus externus of the ear, and sends countless processes into every part of the gland, separating its lobules, and conducting the vessels through its substance.

The use of this gland is to secrete or separate from the blood the greater part of the saliva furnished the mouth. As the parotid is, however, on the outside and at some little distance from the mouth, it is furnished with a duct to convey its fluid into this cavity—this duct is called the duct of *steno*, or the parotid duct.

It is formed of the excretory ducts of all the granules composing this gland, which successively uniting together, at last form one common duct.

The duct of Steno commences at the anterior part of the gland, and passes over the masseter muscle, on a line drawn from the lobe of the ear to the middle part of the upper lip, then passes through a quantity of soft adipose matter, and finally enters the mouth by passing through the buccinator muscle and mucous membrane opposite the second molaris of the upper jaw.

PARMENTIER'S ASTRINGENT GARGLE. Take oak bark, ℥ i; river water, ℔ i; sulph. alum, ʒ i; honey of roses, ʒ i.

PARMLY, ELEAZAR. An Essay on the Disorders and Treatment of the Teeth, by. London and New York, 1822. The above work contains much useful information.—Addresses to the Graduating Class of the Baltimore College of Dental Surgery, at the seventh and eighth Annual Commencements. Baltimore, 1847 and 1848. Dr. Parmly is also the author of several addresses, delivered before the American Society of Dental Surgeons, and of Notes to Brown's Dentologia, and of Notes to an edition of Hunter's Treatise on the Natural History and Diseases of the Human Teeth, published in the Library part of the first volume of the American Journal of Dental Science, as well as of a Paper on the use of Amalgam, published in the New York Medical and Surgical Jour-

nal, in which he opposes the use of this article. Besides the above, Dr. P. is the author of several other well written articles upon the same subject.

PARMLY, LEVI S. A Practical Guide to the Management of the Teeth, &c., by. Philadelphia, 1819.—Lectures on the Natural History and Management of the Teeth; the Cause of their Decay, &c., by. New York, 1821.—Dissertation on the Management of the Mouth and Teeth, read before the American Society of Dental Surgeons, August, 1841, and published in American Journal of Dental Science, volume second. This last paper is chiefly devoted to dental hygiene, and contains much valuable information upon the subject.

PAROTIDON'CUS. From παρωτις, the parotid, and ογκος, a tumor. A swelling of the parotid gland.

PAROTIS. Inflammation and swelling of the parotid gland. Also, the gland itself.

PAROTI'TIS. From *parotis*, the parotid gland, and *itis*, inflammation. Cynanche parotidea; the mumps.

PAR'OXYSM. *Paroxysmus;* from παροξυνω, I irritate. The occurrence at regular or irregular intervals of an obvious increase in the symptoms of a disease. Also, a periodical attack or fit of a disease, as in intermittent fevers, neuralgia, &c.

PAROXYS'MAL. Applied to a disease attended with paroxysms.

PARSLEY. Apium petroselinum.

Parsley, Stone. Amomum verum.

PARSNIP. Pastinaca sativa.

PARTHEN'IUS. From παρθενος, a virgin. A disease of a young female. Also, chlorosis.

PARTRIDGE-BERRY. Gaultheria.

PARTURI'TION. The expulsion of the fetus and its appendages.

PARU'LIS. From παρα, near, and ουλον, the gum. Inflammation, swelling or abscess in the gum. See Alveolar Abscess.

PARU'RIA. From παρα, defectively, and ουρεω, I pass urine. A morbid secretion or discharge of urine.

PASCH. Treatise from Surgery on the Teeth, by. Vienna, 1767.

PAS'MA. A dry powder employed by the ancients to sprinkle over the body, and on ulcers.

PASSIFLO'RA. The name of a genus of plants.

Passiflora Laurifo'lia. The bay-leaved passion-flower.

Passiflora Malifor'mis. Apple-shaped granadilla.

PASSIO. Applied, in *Medicine*, to a disease or affection.

Passio Hysterica. Hysteria.

Passio Ileaca. Ileac passion.

PASSION. *Passio;* from *patior*, to suffer. An affection of the mind, as desire, hope, fear, joy, grief, anger, love, hatred, &c.

PASS'IVE. *Passivus.* A term applied to disease in which there is no apparent reaction, or which seems to be dependent on a diminution of the vital energy.

PAS'SUM. Raisin wine.

PAS'TA. A lozenge.

PASTE. A soft compound medicine. In *Dental Surgery*, a term applied to a number of preparations, employed in a soft state, for filling teeth.

Paste for Easing Pains of the Teeth, Bourdet's. ℞.—Opium, grs. iij; cloves in powder; gall-nuts, in powder, ā ā, grs. x; red earth, grs. xv; camphor, grs. x, and as much anodyne drops as may be necessary to make into a thick paste. It is directed to be applied to the cavity of the aching tooth.

Paste for the Teeth and Gums, Fauchard's. ℞.—Red coral, ʒ iij; dragon's-blood, in tears, ʒ i; seeds of mother of pearl and cuttle-fish bone, ā ā, ʒ ss; crab's-eyes, bole, armenian, red earth, calcined hemalite, pumice-stone, ā ā, ʒ iij; calcined alum, ʒ i.—Reduce to an impalpable powder, incorporate with a sufficient quantity of clarified honey to make a paste of soft

consistence; add four or five drops of the oil of cinnamon, and as much oil of cloves. It is directed to be used on a fine sponge, with which the teeth are to be rubbed up and down, outside and inside, once or twice a week. Two other and very similar formulæ are given by the same author, but we do not think it necessary to copy them.

PASTE, MINERAL. See Amalgam.

PASTIL'LUM. From *pasta*, a lozenge. A compound medicine, composed of sugar and mucilage, with essential oil, or some other ingredient.

PASTINA'CA. The parsnip. Also, the name of a genus of plants.

PASTINACA OPOP'ANAX. The plant which produces the opopanax.

PASTINACA SATI'VA. The garden parsnip.

PATEL'LA. Diminutive of *patina*, a dish. The knee-pan. A small flat bone situated at the fore part of the knee joint.

PATHE'MA. Emotion; affection; disease.

PATHEMA ANIMI. The passions of the mind.

PATHET'ICUS. *Pathetic;* from παθος, an affection. Pertaining to the passions.

PATHETIC NERVE. The fourth pair of nerves.

PATHOG'ENY. *Pathogenia;* from παθος, a disease, and γενεσις, generation. That part of pathology which relates to the origin and development of disease.

PATHOGNOMON'IC. *Pathognomonicus;* from παθος, a disease, and γινωσκω, I know. Applied to the signs which characterize a disease.

PATHOL'OGY. *Pathologia;* from παθος, a disease, and λογος, a discourse. That branch of medical science which treats of the nature of disease. It is divided into *general* and *special*. The former regards diseases in general, and the latter, individual diseases.

PATHOLOGICAL ANATOMY. The anatomy of diseased structures.

PATHOMA'NIA. A morbid perversion of the natural feelings, habits, disposition and affections.

PATHOS. An affection; a disease.

PATOR NA'RIUM. The cavities of the nose.

PAULI. Dissertation on the Pain of the Teeth, by. Haffnia, 1579.

PAULLIN'IA. The name af a genus of sapindaceous plants. Also, a medicine recently introduced into Europe from Brazil, and prepared from the seed of the *paullinia sorbilis*.

PAULLINIA SORBILIS. The name of a South American plant.

PAVILION OF THE EAR. The expanding portion of the ear.

PAVO CRISTATUS. The peafowl.

PEA. Pisum sativum.

PEACH. Amygdalus persica.

PEAR. Pyrus communis.

PEARL. A small calcareous concretion, of a bright silvery white color, found in the shell of the *avicula margaritifera*.

PEARL ASH. The potash of commerce.

PEARL BARLEY. Hordeum perlatum.

PEASE, W. A. Author of a Report of a Case of Molar and Maxillary Absorption; published in the New York Dental Recorder.

PECCANT HUMORS. Diseased fluids or secretions.

PECHED'ION. The perineum.

PECHY'AGRA. From πηχυς, the elbow, and αγρα, a seizure. Gout in the elbow.

PE'CHYS. The elbow.

PECTIN. A principle which forms the basis of vegetable jelly.

PECTINA'LIS. From *pecten*, the pubes. A small muscle, extending from the pubes to a little below the lesser trochanter of the os femoris.

PECTINATE. *Pectinatus;* from *pecten*, a comb. Comb-like; applied to the facicular texture observed in the right auricle of the heart.

PECTINI'BRANCHIATA. From *pectin*, a comb, and *branchia*, gills. The

order of gasteropods, in which the gills are shaped like a comb.

PEC'TINOUS. Belonging, or relating, to pectine.

PEC'TORAL. *Pectoralis;* from *pectus*, the breast. Belonging, or relating, to the breast.

Pectoral Moss. Lichen pulmonarius.

PECTORALIS MAJOR. A broad, thick muscle of the breast.

Pectoralis Minor. A small muscle occupying the anterior and upper part of the chest.

PEC'TORILOQUY. From *pectus*, the breast, and *loquor*, to speak. Speech coming, as it were, from the chest. A morbid phenomenon, consisting in the direct issue of the voice, distinctly articulated, from the point of the chest on which the ear or stethescope is placed, indicating the existence of ulcerated cavities in the substance of the lungs.

PECTUS. The breast.

PEDE'SIS. Pulsation.

PED'ICLE. A small stalk.

PEDICULA'RIS. The name of a genus of plants; lousewort, so called, from the supposition that it engenders lice in the animals that feed upon it.

PEDIC'ULUS. The louse. A genus of parasitic insects. Three species infest the human body; namely, the *body-louse;* the *head-louse*, and the *pubic* or *crab-louse*.

PEDICUS. The extensor brevis digitorum pedis.

PEDIFORM. From *pes*, a foot. Shaped like a foot.

PEDILU'VIUM. From *pedes*, the feet, and *lavo*, I wash. A foot-bath.

PEDION. The sole of the foot.

PEDORA. The sordes of the eyes, ears and feet.

PEDUN'CLE. *Pedunculus;* from *pes*, the foot. In *Botany*, the flower-stalk. In *Anatomy*, a slender process or prolongation of medullary substance which connects parts.

Peduncle of a Dental Sac. See Gubernaculum Dentis.

Peduncles of the Brain. The crura cerebri.

Peduncles of the Cerebellum. Crura posteriora medullæ oblongatæ.

Peduncles of the Medulla Oblongata. The corpora restiformia.

PEGANELÆ'ON. Oil of rue.

PEGA'NUM. The name of a genus of plants.

Peganum Har'mala. The Assyrian wild rue.

PEL'ICAN. An instrument used by the older dentists for the extraction of teeth, and although illy calculated for the purpose, is said to be still used in the north of Europe. It consists of a handle, made of wood, ivory, iron or steel, flattened on two sides, with a blunt, rounded, and serrated extremity, to serve as a fulcrum. The other end, intended to be received in the hand, is round or oval. To the middle, a long hook is screwed, bearing some resemblance to the beak of a pelican, and hence the name which the instrument has received. This hook passes in front of the fulcrum extremity of the handle sufficiently, to admit the tooth to be extracted, between them. As with the key instrument, several hooks, varying in size, are required. An engraving of this instrument is given by Fauchard, and several other French authors. There is also in the museum of the Baltimore College of Dental Surgery, an instrument of this description, though of a somewhat more modern date.

PELIO'MA. From πελος, black. An echymosis of a livid color.

PEL'LAGRA. *Pelagra. Elephantiasis Italica.* A species of scaly erysipelas of the hands, which sometimes extends to the feet and face.

PELLI'CLE. *Pellicula;* from *pellis*, the skin. The delicate membrane which lines the shell of an egg, or invests the seed of plants. In *Medicine*, a delicate membranous production. Also, the film which sometimes forms on the surface of urine.

PELLITORY. Xanthoxylum fraxineum.

Pellitory, Bastard. Achillea ptarmica.

Pellitory of Spain. Anthemis pyrethrum.

PEL'VIC. *Pelvicus.* Belonging, or relating, to the pelvis.

Pelvic Aponeurosis A tendinous expansion attached to the brim of the pelvis.

PELVI-TROCHANTE'RIC. That which relates to the pelvis and greater trochanter.

PELVIS. From πελυς, a basin. An irregular bony cavity, of a conoidal shape, formed by the two ossa innominata, the os sacrum, and os coccygis, open above and below, and containing the rectum and urinary bladder and the internal organs of generation.

Pelvis Auris. The cochlea of the ear.

Pelvis Cerebri. The infundibulum of the brain.

Pelvis of the Kidney. A membranous cavity situated in the posterior part of the fissure of the kidney, between the principal branches of the renal artery and vein, and at the superior part of the ureter, with which it is continuous.

PENTA'CRINITE. From πεντε, five, and κρινον, lily. A pedunculated star-fish, with five rays. Most of the species are extinct.

PEM'PHIGUS. From πεμφιξ, a bubble. A cutaneous disease, consisting of vesicles, filled with a transparent, pellucid fluid, scattered over the body. The vesicles, after some days' duration, break and terminate in a scab, though frequently they ulcerate.

PEMPHIX. A bubble or vesicle.

PENÆ'A. The name of a genus of plants.

Penæa Mucrona'ta. See Sarcocolla.

Penæa Sarcocolla. See Sarcocolla.

PENCIL'LIFORM. Having the form or shape of a pencil.

PENICIL'LUS. *Penicillum;* diminutive of *peniculum,* a brush. In *Surgery,* a tent or pledget. In *Anatomy,* the secreting extremities of the vena portæ are called *penicilli.*

PEN'DULOUS. Pendant; hanging down.

PEN'ETRATING. *Penetrans;*—from *penetrare,* to pierce, or enter into. Applied to medicines which are supposed to pass through the pores of the skin, and stimulate. Also, to wounds, which penetrate the splanchnic cavities.

PENIS. A tail; from *pendere,* to hang down. *Membrum virile.* An erectile, cylindrical organ, belonging exclusively to the male sex, situated before and beneath the symphises pubis.

Penis Cerebri. The pineal gland.

Penis Muilie'bris. The clitoris.

PEN'NIFORM. *Penniformis;* from *penna,* a pen. Having the form of a pen or feather.

PENNYROYAL. Mentha pulegium; hedeoma pulegioides.

Pennyroyal, Hart's. Mentha cervina.

PENTAN'DRIA. *Pentandrous;*—from πεντε, five, and ανηρ, a husband. Applied to plants which have hermaphrodite flowers, and five male organs or stamens.

PENTAPHAR'MACON. From πεντε, five, and φαρμακον, remedy. Any medicine consisting of five ingredients.

PEONY. Pæonia officinalis.

PEPO. From πεπτο, to ripen. The common pumpkin.

PEPPER. Piper.

Pepper, Black. Piper nigrum.

Pepper, Cayenne. Capsicum annuum.

Pepper, Jamaica. Myrtus pimenta.

Pepper, Poor Man's. Polygonum hydropiper.

Pepper, Wall. Sedum acre.

Pepperidge Bush. Berberis vulgaris.

PEPPERMINT. Mentha piperita.

PEPPERWORT. Lepidium iberis.

PEP'SIN. *Pepsine;* from πεπτω, to digest. A peculiar substance, which,

in combination with the gastric acids, is supposed to constitute the proper digestive solvent. It acts like a ferment.

PEPTIC. *Pepticus.* Digestive.

PERCEP'TION. *Perceptio.* The act of receiving the knowledge of external impressions made on the organs of sense.

PERCHLORIC ACID. Hyperchloric acid.

PERCOLA'TION. From *percolare*, to strain through. In *Pharmacy*, the act of straining or filtering.

PERCUS'SION. From *percutio*, to strike. The act of striking one body against another. In diseases of the chest, it is used as a means of diagnosis, and, also, sometimes in diseases of the teeth.

PERCU'TEUR A MARTEAU.—The name of an instrument employed by Baron Heurteloup, in the operation of lithotrity.

PEREN'NIAL. *Perennis;* from *per*, and *annus*, a year. Applied, in *Botany*, to plants which continue more than two years.

Perennial Worm-Grass. The spigelia marilandica.

PER'FOLIATE. A term designative of leaves which surround the stem at their base.

PER'FORANS. From *perforare*, to bore through. A term applied, in *Anatomy*, to muscles whose tendons pass through openings in the tendons of other muscles.

Perforans Casserii Nervus. The external cutaneous nerve.

Perforans Profundus. Flexor longus digitorum pedis profundus perforans.

Perforans Vulgo Profundus.—Flexor profundus perforans.

PERFORA'TION. *Perforatio;* from *perforare*, to pierce. An opening in the continuity of the parietes of a hollow organ.

PERFORATOR. An obstetrical instrument.

PERFORA'TUS. Applied to muscles or tendons which have an opening through their fibres for other parts to pass through them.

PERGAMEN'EOUS. From *pergamen*, parchment. Having the texture of parchment.

PERI-. A prefix, from περι, around, on all sides, signifying, enveloping, round about, as the *dental periosteum*, &c.

PERIÆ'RESIS. From περι, about, and αιρεω, I take away. A circular incision about a tumor.

PERIBLEP'SIS. From περι, around, and βλεπω, I look. The wild look observed in persons laboring under delirium.

PERIBRO'SIS. From περι, around, and βρωσκω, I eat. Ulceration of the corners of the eyelids.

PERICARDI'TIS. From περικαρδιον, the pericardium, and *itis*, inflammation. Inflammation of the pericardium.

PERICAR'DIUM. From περι, about, and καρδια, the heart. The membranous sac which envelops the heart.

PERICARP. From περι, about, and καρπος, a seed. The covering of the seed of plants; the seed vessel.

PERICHON'DRIUM. From περι, about, and χονδρος, a cartilage. The fibrous membrane which covers the non-articular cartilages.

PERICNE'MIA. From περι, around, and κνημη, the tibia. The parts surrounding the tibia.

PERICRA'NIUM. From περι, around, and κρανιον, the cranium. The external periosteum of the cranium.

PERIDIASTOLE. The almost imperceptible period or interval which succeeds to the diastole of the heart.

PERIGLOT'TIS. The epiglottic gland.

PERIG'RAPHE. The *lineæ transversæ* of the *rectus abdominis* muscle.

PERIMY'SIUM. The cellular membrane that covers a muscle or its faciculi.

PERIN. From πηρα, a sac or pouch. This word has various significations.

It is used by some to designate the testicle, by others the scrotum, and by others again, the perineum.

PERINÆOCE'LE. Hernia in the perineum.

PERINÆUS TRANSVERSUS.—The transversus perinæi.

PERINE'AL. Belonging, or relating, to the perineum.

PERINE'UM. The space between the anus and genital organs.

PERINEU'RION. The neurilemma.

PERIOD. *Periodus;* from περι, about, and οδος, way. A stated time; the time of the exacerbation and remission, or of the paroxysm and intermission of a disease. The different phases of a disease are called periods, as the *invasion, augmentation, height, decline,* and *termination.*

PERIODIC'ITY. The tendency of certain phenomena to occur after longer or shorter intervals.

PERIODONTI'TIS. From περι, about, οδους, a tooth, and *itis,* inflammation. Inflammation of the alveolodental periosteal tissue. See Odontalgia.

PERIODYN'IA. From περι, around, and οδυνη, pain. An acute circumscribed pain.

PERIOR'BITA. From περι, around, and *orbita,* the orbit. The periosteum of the orbit.

PERIOS'TEUM. *Periosteon;* from περι, around, and οστεον, a bone. A white, fibrous membrane, which surrounds all the bones of the body, except the crowns of the teeth.

Periosteum Dentium. The periosteum of the teeth.

PERIOSTI'TIS. Inflammation of the periosteum.

PERIOSTO'SIS. A tumor of the periosteum.

PERIOS'TRACUM. From περι, around, οστρακον, shell. The membranous covering of shells, which is analogous to scarf skin.

PERIPH'ERY. From περι, around, and φερω, to bear. The circumference of a circle; the outside of the body, or of any object.

PERIPH'IMOSIS. Paraphimosis.

PERIPLEUMO'NIA. Peripneumonia.

PERIP'LYSIS. *Profluvium.* An excessive discharge.

PERIPNEUMO'NIA From περι, around, and πνευμων, the lung. Inflammation of the lungs.

PERIPYE'MA. From περι, about, and πυον, pus. Suppuration around an organ. This frequently occurs around a tooth.

PERIRRHŒ'A. From περι, about, and ρεω, I flow. An afflux or determination of fluids towards an organ. Also, enuresis.

PERISPHAL'SIS. From περι, about, and σφαλλω, I move. Circumduction; a motion given to a luxated bone for the purpose of reducing it.

PERISTAL'TIC. *Peristalticus;*—from περιστελλω, to involve. The vermicular motion of the intestines, by which they contract and force the chyle downward to the mouths of the lacteals and the feces to the anus.

PERISTAPHYLI'NUS EXTERNUS. The circumflexus palati.

Peristaphylinus Internus. The lavator palati.

PERISTAPHYLO-PHARYNGEUS. The upper part of the palatopharyngeus muscle.

PERISTE'RIUM. Verbena officinalis.

PERISTER'NA. From περι, about, and στερνον, the sternum. The lateral portions of the thorax.

PERIS'TOLE. From περι, around, and στελλω, I contract, I close. The peristaltic motion of the intestines.

PERISTRO'MA. *Peristoma;* from περι, around, and στρωννυμι, to spread. The inner or mucous coat of the intestines.

PERISYS'TOLE. From περι, about, and συστολη, a contraction. The pause or interval between the contraction and dilation of the heart.

PERITOM'E. Circumcision.

PERITONE'UM. From περι, around, and τεινω, I stretch. The serous membrane which surrounds all the abdominal viscera, and lines the cavity of the abdomen.

PERITONI'TIS. Inflammation of the peritoneum.

Peritonitis Typhohæ'mic. Puerperal fever.

PERITRE'MA. From περι, around, and τρημα, hole. The raised margin which surrounds the breathing holes of scorpions.

PERITYPHLI'TIS. From περι, around, and *typhlitis*, inflammation of the cæcum. Inflammation of the cellular tissue which surrounds the cæcum.

PERIWINKLE. Vinca minor.

PERIZO'MA. A bandage; a girdle; also, a truss.

PERLA. A pearl.

PERMANENT. Persistent; lasting; remaining in the same state.

PERMEABIL'ITY. From *permeo*, to pass through. Applied to membranous and cellular tissues which permit gases and fluids to pass through them.

PER'NIO. A chilblain.

PEROMEL'IA. From περος, wanting, and μελος, a limb. Congenital want of a limb.

PERONE'AL. *Peronæus;* from περονη, the fibula. Belonging, or relating, to the fibula.

Peroneal Artery. The fibular artery.

Peroneal Muscles. These are three in number. 1. The *peroneus brevis*. 2. The *peroneus longus*. 3. The *peroneus tertius*.

Peroneal Nerve. The external popliteal nerve.

PERONE'US. Belonging to the fibula.

Peroneus Brevis. A muscle situated beneath the peroneus longus.

Peroneus Longus. A long, thick muscle situated at the outer part of the leg.

Peroneus Tertius. A muscle situated at the anterior, outer, and inferior part of the leg.

PEROX'YD. The combination of a simple body with the largest portion of oxygen it is capable of absorbing.

PEROSPLANCH'NICA. From πηρος, wanting, and σπλαγχνον, a viscus. Congenital misconstruction or want of a portion of the viscera.

PERSIM'MON. Diospyros virginiana.

PERSIS'TENT. *Persistens.* Permanent, lasting. Mr. Thomas Bell applies this term to three of the membranes of the teeth. 1. The internal periosteum; 2. The investing periosteum of the root, and 3. The periosteum of the alveolus. The other membranes of the teeth, which are the two lamellæ of the sac, he regards as deciduous.

PERSONA'TA. Arctium lappa.

PERSPIRA'TION. *Perspiratio;*—from *per*, through, and *spirare*, to breathe, exhale. The insensible transpiration of the fluids of the body continually carried on at the surface of the skin. When this fluid is condensed into sensible moisture, it is called *sweat*. Also, the matter perspired.

PERSUL'PHATE. *Persulphas.*—The sulphate of a peroxyd.

PERTURBA'TION. From *perturbo*, to disturb. Disturbance of the natural course of a disease, by the employment of very active therapeutic agents.

PERTUS'SIS. From *per*, much, and *tussis*, cough. The hooping cough.

PERUVIAN BALSAM. A resinous substance of a fragrant odor, obtained from the *myroxylon peruiferum*.

PERUVIAN BARK. Cinchona.

PERVER'SION. From *per*, and *vertere*, to turn. A morbid change.—Also, a diseased state of the humors.

PERVIGIL'IUM. From *per*, much, and *vigilo*, to watch. Want of sleep; watching.

PES. The foot.

Pes Alexandrinus. The Spanish chamomile, or pellitory of Spain.

Pes Anseri'nus. The radiated branches of the portio dura on the side of the face.

Pes Colombi'nus. Geranium rotundifolium.

Pes Equinus. Club-foot.

PES'SARY. *Pessarium;* from πεσσος, a small stone. An instrument, made of wood, ivory, or caoutchouc, and introduced into the vagina to sustain the uterus in cases of prolapsus of this organ.

PESSULUS. A pessary.

PEST'ILENCE. *Pestilentia;* from *pestis,* plague. The plague; any epidemic, contagious or infectious disease of a fatal character.

PESTILEN'TIAL. *Pestilentialis;* from *pestis,* plague. Relating to the plague; applied to diseases which are of an epidemic and malignant character.

PESTIS. From *perdo,* to destroy. The plague; a malignant and contagious typhoid fever.

Pestis Bellica. Typhus gravior.

Pestis Nigra. The black plague of Asia which occurred in the fourteenth century.

PESTORFF. Dissertation on Difficult Dentition, by. Ultr, 1699.

PETAL. *Petalum;* from πεταω, to expand. A flower leaf.

PETASITES. Tussilago petasites.

PETE'CHIA. *Peticula.* A small spot upon the skin, of a red or purple color, resembling a flea-bite, and occurring in the progress of malignant fevers.

Petechiæ Sine Febre. Purpura simplex.

PETECHIAL. Affected with, or resembling, petechiæ.

Petechial Scurvy. Scorbutus.

PET'IOLAR. *Petiolaris.* Pertaining to, or proceeding from, a petiole, or leaf-stalk.

PET'IOLATE. Having a petiole, or leaf-stalk.

PETI'OLUS. From *petalum,* a leaf. The leaf-stalk of a plant.

PETRO'LEUM. *Petrelæum;* from πετρα, a rock, and *oleum,* oil. A brown liquid bituminous substance.

Petroleum Barbadense. Barbadoes tar.

PETRO-OCCIPITAL. Belonging to the petrous portion of the temporal, and to the occipital bone.

Petro-Pharyngæus. The constrictor pharyngis superior.

Petro-Salpingo-Paryngeus. The levator palati mollis.

Petro-Salpingo-Staphylinus. The levator palati.

Petro-Sphenoidal Suture. A small suture between the anterior edge of the petrous portion of the temporal bone and the posterior edge of the sphenoid.

PETROSUM, OS. From πετρα, a rock. The petrosus, one of the portions of the temporal bone is so called from its great hardness.

PETROUS GANGLION. The petrosal ganglion. A ganglion of the glosso-pharyngeal nerve, formed soon after it escapes from the jugular fossa.

PE'TUM. Nicotiana tabacum.

PEUCED'ANUM. The name of a genus of plants.

Peucedanum Officina'le. Hog's fennel.

Peucedanum Sil'aus. Meadow saxifrage.

PEWTER. An alloy of antimony and tin, with a little copper.

PEYER'S GLANDS. *Peyeri glandulæ.* The small clusters of glands or follicles beneath the villous coat of the intestines.

PEZIZA. The name of a genus of fungi.

Peziza Auric'ula. Jew's ears; an astringent membranaceous fungus, so called from its resemblance to the human ear.

PHACI. Ephelides.

PHACI'TIS. From φακος, a lens, and *itis,* inflammation. Inflammation of the crystalline lens.

PHACOHYMENI'TIS. From φακος, a lens, υμην, a membrane, and *itis,*

inflammation. Inflammation of the capsule of the crystalline lens.

PHAGEDÆ'NA. From φαγω, I eat. A rapidly spreading ulcer. Also, a canine appetite.

PHAGEDÆNA GANGRENOSA. Hospital gangrene.

PHAGEDEN'IC. A term applied to a corroding and rapidly spreading ulcer. Also, an escharotic.

PHALACRO'SIS. Baldness.

PHALANGO'SIS. An affection of the eyelids in which the lashes are arranged in two rows.

PHAL'ANX. From φαλαγξ, a row of soldiers. In *Anatomy*, the small bones of the fingers and toes are called *phalanges*, because they are arranged along side of each other like a phalanx.

PHAL'ARIS. The name of a genus of plants.

PHALARIS CANARIEN'SIS. Canary grass.

PHALLOCARCINO'MA. From φαλλος, the male organ, and καρκινωμα, cancer. Cancer of the penis.

PHAL'LUS. The penis.

PHANEROG'AMOUS. *Phanerogamia;* from φανερος, distinct, and γαμος, marriage. A term used, in *Botany*, to designate plants which have visible flowers, containing stamens and pistiles.

PHANTAS'MA. *Phantasm;* from φανταζω, I make appear. A morbid phenomenon, consisting in the perception of imaginary objects.

PHARMACEU'TIC. *Pharmaceuticus;* from φαρμακον, a medicine. Pertaining to pharmacy.

PHARMACIEN. An apothecary.

PHARMACOCHYM'IA. From φαρμακον, a medicine, and χημεια, chemistry. Pharmaceutical chemistry.

PHARMACOGNO'SIA. From φαρμακον, a medicine, γινοσκω, I know. That part of pharmacy which treats of simple medicines.

PHARMACOL'OGY. *Pharmacologia;* from φαρμακον, a medicine, and λογος, a discourse. A treatise on, or the doctrine of, medicinal agents. Materia medica.

PHARMACOPŒ'IA. From φαρμακον, a medicine, and ποιεω, I make. Literally, the art of preparing medicines. A book containing a collection of medicinal formulæ, with a description of the process for the preparation of each. A dispensatory.

PHARMACOP'OLIST. A druggist.

PHARMACOPOLI'UM. From φαρμακον, a medicine, and πωλεω, I sell. The shop of the druggist; a drug store.

PHARMACOPO'SIA. A liquid medicine.

PHARMACOTHE'CA. A medicine case, or chest.

PHAR'MACY. *Pharmacia;* from φαρμακον, a medicine. The art of selecting, preserving and preparing therapeutical agents.

PHARYNGE'AL. *Pharyngeus;* from φαρυγξ, the pharynx. Pertaining to, or implicating, the pharynx.

PHARYNGEAL ARTERIES. These are two in number, the *superior*, and *inferior*. The superior is a branch of the internal maxillary, and sends a branch through the pterygo-palatine foramen to supply the arch of the palate and contiguous parts. The inferior is a branch of the external carotid, and sends off several branches, in its course upwards towards the basis of the cranium, to the pharynx and contiguous deep-seated parts.

PHARYNGEAL NERVE. This nerve is a branch of the pneumogastric, and is distributed to the pharynx. It communicates with the glosso-pharyngeal, divides into a number of branches, which unite with branches of other nerves, forming a network of filaments which constitute the pharyngeal plexus.

PHARYNGI'TIS. Inflammation of the pharynx.

PHARYNGITIS, DIPHTHERIC. Diphtheric inflammation of the pharynx, or inflammation accompanied by the formation of false membranes.

PHARYNGITIS, FOLLIC'ULAR. Inflammation and enlargement of the follicles of the pharynx, extending sometimes to the larynx.

PHARYNGOCE'LE. From φαρυγξ, the pharynx, and κηλη, a tumor. A morbid enlargement of the pharynx and gullet.

PHARYNGO-GLOSSAL. Pertaining to the pharynx and tongue.

PHARYNGOPLE'GIA. From φαρυγξ, the pharynx, and πλησσω, I strike. Paralysis of the pharynx.

PHARYNGO-STAPHYLINUS.—The palato-pharyngeus muscle.

PHARYNGOT'OME. *Pharyngotomus;* from φαρυγξ, the pharynx, and τεμνω, I cut. An instrument for scarifying the tonsils.

PHARYNGOT'OMY. *Pharyngotomia.* The operation of cutting into the pharynx. Also, of scarifying the tonsils.

PHAR'YNX. The musculo-membranous sac at the back part of the mouth, which terminates in the œsophagus. It is invested with a strong fascia, which serves to connect it to the basilar process of the occipital, and the petrous portions of the temporal bones. There are seven foramina which open into it; namely, the two posterior nares, the two eustachian tubes, the mouth, larynx, and œsophagus.

PHASE'OLUS. The name of a genus of plants.

PHASEOLUS VULGA'RIS. The kidney bean.

PHASIANUS COL'CHICUS. The pheasant.

PHASIANUS GALLUS. The domestic fowl.

PHATNION. Φατνιον. The socket of a tooth.

PHAUSIN'GES. A pustule caused by heat.

PHATNORRHA'GIA. From φατνιον, an alveolus, and ρηγνυμι, I break forth. Hemorrhage from the socket of a tooth. See Hemorrhage after the Extraction of Teeth.

PHELLAN'DRIUM. The name of a genus of plants.

PHELLANDRIUM AQUAT'ICUM. Water fennel.

PHENIG'MUS. From φοινιξ, red. A cutaneous disease characterized by redness of the skin, without fever.

PHENOM'ENON. From φαινομαι, I appear. A remarkable and unusual appearance. In *Medicine*, any appreciable change in an organ or function. The phenomena of a disease are its symptoms.

PHI'ALA. A small bottle or phial.

PHILIA'TROS. From φιλεω, I love, and ιατρικη, medicine. An amateur student of medicine.

PHILOSOPHER'S STONE. Lapis philosophorum.

PHIL'TRUM. From φιλεω, I love. A medicine supposed to be capable of exciting love. In *Anatomy*, the vertical depression between the nose and upper lip.

PHIMOS'ICUS. Relating to phimosis.

PHIMO'SIS. From φιμοω, I bind up. A construction of the opening of the prepuce, which prevents it from being carried back behind the corona glandis.

PHLAS'MA. A contusion.

PHLEB'ION. A vein.

PHLEBI'TIS. From φλεψ, a vein, and *itis*, a terminal, denoting inflammation. Inflammation of a vein.

PHLEBITIS, CRURAL. Phlegmasia dolens.

PHLEBITIS UTERINE. Puerperal fever.

PHLEB'OLITE. *Phlebolithus;* from φλεψ, a vein, and λιθος, a stone.—A calculous concretion in a vein.

PHLEBORRHA'GIA. From φλεψ, a vein, and ρηγνυμι, I break out. A rupture of a vein.

PHLEBOTOME. An instrument employed in phlebotomy; a thumb or spring lancet.

PHLEBOT'OMY. *Phlebotomia;* from φλεψ, a vein, and τεμνω, I cut.

The operation of opening a vein. Venesection.

PHLEGM. *Phlegma.* One of the four primary humors of the ancients. Also, the viscid mucus expectorated, or expelled by vomiting.

PHLEG'MAGOGUE. From φλεγμα, phlegm, and αγω, I expel. An expectorant medicine.

PHLEGMA'SIA. From φλεγω, I burn. Inflammation.

PHLEGMASIA DOLENS. *Phlegmasia lactea; phlegmasia alba; crural phlebitis; milk-leg.* A disease occurring in women soon after delivery, attended by fever, pain, swelling of the thigh, and other symptoms of a more or less severe character.

PHLEGMA'SIÆ. Inflammations. An order in the class *pyrexiæ*, of Dr. Cullen.

PHLEGMATOPYR'A. Adenomeningeal fever.

PHLEGMATORRHA'GIA. From φλεγμα, phlegm, and ρεω, I flow. A discharge of a thin, limpid mucus from the nose, unaccompanied by inflammation.

PHLEG'MON. From φλεγω, I burn. Inflammation of the cellular tissue, accompanied by increased heat, pain and circumscribed swelling, usually terminating in suppuration, or abscess.

PHLEGMONO'DES. Phlegmonous.

PHLEG'MONOUS. *Phlegmonodes;* from φλεγμονη, a phlegmon, and ειδος, resemblance. Belonging, or relating, to a phlegmon.

PHLEGMONOUS INFLAMMATION. Inflammation of the cellular tissue, tending to suppuration.

PHLEPS. A vein.

PHLOGIS'TIC. *Phlogisticus;* from φλογιζω, to burn. In *Chemistry*, inflammatory. See Phlogiston. In *Medicine*, preternatural vital energy. Increased action of the heart and arteries.

PHLOGIS'TON. From φλογιζω, to burn. The principle of inflammability; a name given by Stahl to a hypothetical element, supposed to be pure fire, fixed in combustible bodies.

PHLOGISTICATED AIR. Nitrogen gas.

PHLOGO'SIS. Inflammation.

PHLOGOT'IC. Inflammatory.

PHLOR'IDZINE. From φλοιος, bark, and ριζα, a root. A crystalline substance, of a bitter, astringent taste, obtained from the bark of the root of the apple, pear and some other trees.

PHLYCTÆ'NA. From φλυζω, I boil. A vesicle containing a limpid, serous fluid.

PHLYC'TENOID. Resembling phlyctæna.

PHLYCTID'IUM. A pustule, encircled by an inflamed ring or zone, as the small-pox pustule.

PHLY'SIS. A subcutaneous, ulcerative tumor. Also, phlyctæna.

PHOBODIP'SON. Hydrophobia.

PHŒNI'CIUS MORBUS. Tubercular elephantiasis.

PHŒNIG'MUS. A red cutaneous eruption, without fever. Also, a rubefacient.

PHŒ'NIX. The name of a genus of plants.

PHŒNIX DACTYLIF'ERA. The date tree.

PHONE. The voice.

PHO'NICUS. From φωνη, the voice. Relating to the voice.

PHO'NICA. Diseases affecting the organs of voice. An order in the class *pneumatica*, of Dr. Good.

PHORA. Gestation.

PHOS. Light.

PHOS'PHATE. *Phosphas.* A salt resulting from the combination of phosphoric acid with a salifiable base.

PHOSPHAT'IC. Relating to the phosphates.

PHOSPHATIC DIATHESIS. A habit of body favoring the formation of calculi of the phosphates.

PHOSPHORES'CENCE. *Phosphorescentia.* The luminous appearance exhibited by phosphorescent bodies.

PHOSPHOR'IC ACID. *Acidum*

phosphoricum. An acid composed of phosphorus and oxygen.

PHOS'PHORUS. From φως, light, and φερω, I carry. An undecomposed substance, of a yellowish color, semi-transparent, and burning in common air, with great rapidity. In the dark it exhibits a luminous or phosphorescent appearance, and emits a white smoke in the air.

PHOS'PHURET. *Phosphuretum*. A combination of phosphorus with a metal.

PHOTOGE'NIC. From φως, light, and γενναω, to generate. Producing light. Applied to drawings made by the action of light on a chemically prepared ground.

PHOTOG'RAPHY. From φως, light, and γραφη, a painting. The art of painting or fixing images of the camera obscura, on plates of copper covered with silver.

PHOTOM'ETER, From φως, light, and μετρον, measure. An instrument for ascertaining the intensity of light.

PHOTOMA'NIA. Delirium produced by the action of intense light.

PHOTOPHO'BIA. From φως, light, and φωβεω, to dread. Intolerance of light.

PHOTOP'SIA. From φως, light, and οψις, vision. Lucid vision, or perception of sparks, flashes of fire, &c.

PHOTU'RIA. From φως, light, and ουρον, urine. Luminous urine.

PHRAG'MOCONE. From φραγμα, a partition, and κονος, a cone. The chambered cone of the shell of the belemnite.

PHRAG'MOS. From φρασσω, I enclose. A row of teeth.

PHRA'SIS. Articulated voice.

PHRE'NES. The forepart of the thorax. Also, the diaphragm.

PHRENE'SIS. Phrenitis.

PHREN'IC. *Phrenicus*. Diaphragmatic. Relating, or belonging, to the diaphragm.

Phrenic Arteries. The diaphragmatic arteries.

Phrenic Nerve. The diaphragmatic nerve.

PHREN'ICA. From φρην, the mind. Diseases affecting the mind; an order in the class *neurotica*, of Dr. Good.

PHRENI'TIS. From φρην, the mind, and *itis*, inflammation. Inflammation of the brain.

PHRENOL'OGY. *Phrenologia*; from φρην, the mind, and λογος, a discourse. A treatise on the mind as deduced from the external configuration and volume of the brain.

PHRENSY. Phrenitis.

PHRICE. Φριχη. Shuddering; the chill of the cold fit of an ague; a shuddering from terror.

PHRICO'DES FEBRIS. A fever in which the chill is very severe and prolonged.

PHTHAR'MA CALIGO. Caligo.

Phtharma Catarac'ta. Cataract.

Phtharma Glauco'ma. Glaucoma.

PHTHIRI'ASIS. From φθειρ, a louse. *Morbus pediculosus*. A disease favoring the generation of lice.

PHTHIS'ICUS. Belonging to phthisis.

PHTHISIOL'OGY. *Phthisiologia*; from φθισις, consumption, and λογος, a discourse. A treatise on phthisis.

PHTHISI-PNEUMONIA. Phthisis pulmonalis.

PHTHI'SIS. From φθω, I consume. Consumption; progressive emaciation of the body, from whatever cause produced, but usually restricted to *phthisis pulmonalis*.

Phthisis, Cancerous. Cancer of the lungs.

Phthisis Dorsalis. Tabes dorsalis.

Phthisis Laryngе'a. Chronic laryngitis—a species of consumption resulting from ulceration of the larynx.

Phthisis Mesenterica. Tabes mesenterica.

Phthisis Pulmonalis. *Phthisis tuberculosa*. Pulmonary consumption.

Phthisis Trachealis. Chronic inflammation of the trachea, accompanied by ulceration and emaciation.

PHTHISU'RIA. Diabetes.

PHTHOE. Phthisis.

PHYGETH'LON. From φυγω, I broil. Inflammation of the superficial lymphatic glands.

PHYLACT'RY. An amulet; a prophylactic.

PHYLLI'TIS. Scolopendrium vulgare.

PHY'MA. From φυω, to produce. A tubercle or phlegmon. A genus of diseases in Good's Nosology, including hordeolum, furunculus, sycosis, and anthrax.

PHYMATO'SIS. An excrescence.

PHYMOSIS. Phimosis.

PHY'SALIS. The name of a genus of plants.

Physalis Alkeken'gi. The winter cherry.

PHYS'CIA ISLANDICA. Iceland moss.

PHYSCO'NIA. From φυσκη, a bladder. Any tumor developed in the abdomen which is neither sonorous nor fluctuating. Eight species are enumerated: 1. *Physconia hepatica*, enlarged liver. 2. *Physconia peritonei*, tumefied peritoneum. 3. *Physconia splenica*, enlarged spleen. 4. *Physconia omentalis*, enlarged omentum. 5. *Physconia renalis*, enlarged kidney. 6. *Physconia uterina*, enlargement of the uterus and its appendages. 7. *Physconia mesenterica*, enlargement of the mesentery, and 8. *Physconia intestinalis*, laxity of the intestinal canal, occasioning enlargement of the abdomen, or physconia.

PHYSE'MA. *Physesis;* from φυσαω, I inflate. A tumor caused by an accumulation of air in the cellular texture. Also, tympanitis.

PHYSETER MECROCEPH'ALUS. The spermaceti whale.

PHYSIC. The art of healing diseases; medicine.

Physic, Indian. Gillenia trifoliata.

Physic-Nuts. The nuts of the *jatropha curcas*.

PHYSICAL. Pertaining to the tangible properties or effects of material things.

PHYSI'CIAN. One who has received the degree of doctor of medicine from a regularly incorporated institution. In France, a professor or student of natural philosophy.

PHYSICS. From φυσις, nature.—The science of nature; but in the usual and more restricted acceptation of the term, the movements, pressure, and sensible properties of things. Natural philosophy.

PHYSIOG'NOMY. *Physiognomia;* from φυσις, nature, and γινωσκω, I know. The art of judging of the character and dispositions of men by their countenances, gestures and external appearance.

PHYSIOL'OGY. *Physiologia;* from φυσις, nature, and λογος, a discourse. By the ancients this term was used in the same sense as that of *physics*, but at present it is limited to the science which treats of the laws of life and the functions of living beings. Physiology is divided into *human* and *comparative*. The former relates to man, and the latter to animals and vegetables. It is, also, divided into *general* and *special*—the one relating to the general laws of life, and the other to the functions of particular or individual organs.

PHYSIS. Nature; life.

PHYSOCE'LE. Pneumatocele, an emphysematous tumor of the scrotum.

PHYSOME'TRA. From φυσαω, I inflate, and μητρα, the womb. *Inflatio uteri*. Windy swelling of the uterus.

PHYSON. Flatulence.

PHYSON'CUS. A windy tumor.

PHYSOTHO'RAX. Pneumothorax.

PHYTOG'RAPHY. *Phytographia;* from φυτον, a plant, and γραφη, description. A description of plants.

PHYTOLAC'CA. The name of a genus of plants.

Phytolacca Decandra. Poke-weed.

PHYTOL'OGY. *Phytologia;* from

φυτον, a plant, and λογος, a discourse. A treatise on plants. Botany.

PHYTOT'OMY. The anatomy of plants.

PHYTO'PHAGOUS. From φυτον, a plant, and φαγω, I eat. Plant eating animals.

PIA MATER. The highly vascular membrane which immediately invests the convolutions of the cerebrum, cerebellum, medulla oblongata, and medulla spinalis.

PIAN. Frambœsia.

PIAR. Fat.

PIARHÆ'MIA. From πιαρ, fat, and αιμα, blood. Fat in the blood.

PI'CA. Depraved appetite.

PICHU'RIM CORTEX. An aromatic bark, obtained from a species of *laurus pichurim*.

PICHURIS. Faba pichurim.

PICRIA. Bitterness.

PICRIC ACID. A substance produced by the action of nitric acid on indigo, silk, aloes, &c.

PIC'RIS. The name of a genus of plants.

Picris Echoides. The common ox-tongue.

PICROTOX'IN. *Picrotoxina; picrotoxine;* from πικρος, bitter, and τοξικον, poison. A vegetable alkali, which crystallizes in white, brilliant, four-sided, transparent prisms. It is this principle which gives to the cocculus indicus its poisonous properties.

PIEDMONT TRUFFLE. Lycoperdon tuber.

PIG-NUT. The ground-nut.

PIGMEN'TUM. From *pingo*, to paint. A pigment or paint. An epithet applied, in *Anatomy*, to a black mucous substance found in the eye; namely, the *pigment of the iris*, called the *uvea;* and the *pigment of the choroid membrane*, called the *pigmentum nigrum*.

Pigmentum Indicum. Indigo.

PILA HYS'TRICIS. The bezoar hystricis.

PILARE MALUM. Trichiasis.

PILA'TIO. From *pilus*, a hair. A hair-like fracture of the skull.

PI'LEOUS. Relating to the hair.

PILES. Hæmorrhoids.

PILE-WORT. Ranunculus ficaria.

PILL. Pilula.

Pill, Blue. Pilulæ hydrargyri.

Pill, Mercurial. Pilulæ hydrargyri.

PILO'SUS. Hairy.

PILU'LA. Diminutive of *pila*, a ball. A simple or compound medicine, of a firm consistence, spherical shape, and rarely exceeding five or six grains in weight.

PILULÆ ALOES. Aloetic pills.

Pilulæ Aloes Compositæ. Compound pills of aloes.

Pilulæ Aloes et Asafœtidæ.—Pills of aloes and asafetida.

Pilulæ Aloes et Ferri. Pills of aloes and iron.

Pilulæ Aloes et Myrrhæ. Pills of aloes and myrrh.

Pilulæ Asafœtidæ. Asafetida pills.

Pilulæ Calomelanos Compositæ. Compound calomel pills.

Pilulæ Calomelanos et Opii.—Pills of calomel and opium.

Pilulæ Cambogiæ Compositæ.—Compound pills of gamboge.

Pilulæ Catharticæ Compositæ. Compound cathartic pills.

Pilulæ Colocynthidis Compositæ. Compound pills of colocynth.

Pilulæ Calocynthidis et Hyoscyami. Pills of colocynth and henbane.

Pilulæ Conii Compositæ. Compound pills of hemlock.

Pilulæ Copaibæ. Pills of copaiba.

Pilulæ Cupri Ammoniati. Pills of ammoniated copper.

Pilulæ Digitalis et Scillæ. Pills of digitalis and squill.

Pilulæ Ferri Carbonatis. Pills of carbonate of iron.

Pilulæ Ferri Sulphatis. Pills of sulphate of iron.

Pilulæ Galbani Compositæ. Compound pills of galbanum.

Pilulæ Gambogiæ Compositæ.—Compound pills of gamboge.

Pilulæ Hydrar'gyri. Mercurial pills. Blue pills.

Pilulæ Hydrargyri Chloridi Compositæ. Compound pills of chloride of mercury.

Pilulæ Hydrargyri Iodidi. Pills of iodide of mercury.

Pilulæ Ipecacuanhæ Compositæ. Compound pills of ipecacuanha.

Pilulæ Ipecacuanhæ et Opii. Pills of ipecacuanha and opium.

Pilulæ Opii. Pills of opium.

Pilulæ Plumbi Opiatæ. Opiate pills of lead.

Pilulæ Quiniæ Sulphatis. Pills of sulphate of quinine.

Pilulæ Rhei. Pills of rhubarb.

Pilulæ Rhei Compositæ. Compound pills of rhubarb.

Pilulæ Rhei et Ferri. Pills of rhubarb and iron.

Pilulæ Sagapeni Compositæ. Compound pills of sagapenum.

Pilulæ Saponis Compositæ. Compound pills of soap.

Pilulæ Saponis Cum Opio. Compound pills of soap.

Pilulæ Scillæ Compositæ. Compound pills of squill.

Pilulæ Styracis Compositæ. Compound pills of storax.

Pilulæ Thebaicæ. Pills of opium.

Pi'lus. The short hair on the surface of the body.

PIMELE. Fat.

PIMELI'TIS. From πιμελη, fat, and *itis*, denoting inflammation. Inflammation of the adipose tissue.

PIMELO'SIS. From πιμελη, fat. The conversion of any texture into fat.

Pimelosis Hepatica. The degeneration of the liver into fat.

PIMEN'TA. *Pimento.* Myrtus pimenta.

PIMPER'NEL. Scarlet pimpernel.

PIMPINEL'LA. The name of a genus of plants.

Pimpinella Ani'sum. The anise plant.

Pimpinella Saxi'fraga. Burnet saxifrage.

PIMPLE. Papula.

PIN. A small instrument, pointed at one extremity, made of brass, iron, silver, or gold, and used, in *Surgery*, to to fix dressings, and sometimes in sutures.

PINCERS. Forceps; volsella.

PINCHBECK. Dutch gold; an alloy of copper and zinc.

PINE. Pinus.

Pine-Apple. Bromelia ananas.

Pine Thistle. Atractylis gummifera.

PINEA. Pinus pinea.

PINE'AL. *Pinealis;* from *pinus*, a pine. Resembling the pine-apple.

Pineal Gland. *Glandula pinealis.* A small gland, about the size of a pea, of a conical shape, situated between the fornix and tubercula quadrigemina in the brain.

PINEUS PURGANS. Jatropha curcas.

PINGUE'DO. From *pinguis*, fat. Fat.

PINGUIC'ULA. The name of a genus of plants.

Pinguicula Vulga'ris. Butterwort.

PINK, CAROLINA. Spigelia marilandica.

PINNAC'ULUM. A summit or pinacle.

PIN'NATE. From *pinna*, a feather, or fin. A species of compound leaf, where a single petiole has several leaflets attached to each side of it.

PIN'NULA. A branchlet of a pinnate leaf.

PINT. The eighth of a gallon, or sixteen fluid ounces.

PINUS. The name of a genus of gymnospermous plants.

Pinus Abies. The Norway spruce-fir, which affords the Burgundy pitch, and the common frankincense.

Pinus Australis. The long leaved southern pine.

Pinus Balsame'a. The tree which affords the Canada balsam.

PINUS CANADEN'SIS. The hemlock spruce.

PINUS CEDRUS. The cedar tree.

PINUS CEMBRA. The tree which affords the carpathian balsam.

PINUS LARIX. The larch tree, which yields the larch agaric, and Venice turpentine.

PINUS MUGHOS. The mountain or mugho pine.

PINUS PICEA. The European silver fir tree.

PINUS PINASTER. The cluster pine which yields Bordeaux turpentine.

PINUS PINEA. The stone pine tree.

PINUS PUMILIO. Pinus mughos.

PINUS RIGIDA. The barren pine, which yields a large quantity of turpentine and tar.

PINUS SYLVESTRIS. The Scotch fir.

PIPER. Pepper. The name of a genus of plants.

PIPER ALBUM. White pepper, or the black, freed from its cuticle.

PIPER ANGUSTIFO'LIUM. The matico plant.

PIPER BRASILIANUM. Capsicum annuum.

PIPER CARYOPHYL'LATUM. Myrtus pimenta.

PIPER CAUDA'TUM. Piper cubeba.

PIPER CUBEBA. *Cubeb pepper.* The plant which yields cubebs.

PIPER DECORTICATUM. White pepper.

PIPER FAVASCI. The clove berry-tree.

PIPER GUINEENSE. Capsicum annuum.

PIPER JAMAICENSE. Myrtus pimenta.

PIPER LONGUM. Long pepper.

PIPER LUSITANICUM. Capsicum annuum.

PIPER MURALE. Sedum acre.

PIPER NIGRUM. Black pepper.

PIPERI'NA. *Piperine.* A white, resinoid substance, obtained from black pepper, and containing the active principle of pepper.

PISCID'IA ERYTHRI'NA. Jamaica dogwood.

PISCES. A division of vertebrata, including fishes which respire in water.

PIS'IFORM. *Pisiformis;* from *pisum,* a pea, and *forma,* shape. Pea-shaped.

PISIFORM Os. The fourth bone of the first row of the carpus.

PISMIRE. Formica rufa.

PISO. A mortar.

PISSELÆLI'UM. Petroleum.

PISTA'CIA. The name of a genus of plants.

PISTACIA LENTIS'CUS. The mastich tree.

PISTACIA TEREBIN'THUS. The turpentine tree. The tree which yields the cyprus, and chio turpentine.

PISTACIA VERA. The tree which affords the pistachio nut.

PISTACHIO NUT. The fruit of the *pistacia vera.*

PIS'TIL. *Pistillum.* The female sexual organ of all phenogamous plants.

PISTILLIF'EROUS. A term applied to plants, the flowers of which contain one or more pistils, without stamens.

PISTOLO'CHIA. Birthwort.

PISUM SATIVUM. The common pea.

PIT OF THE STOMACH. The epigastrium.

PITAYA BARK. One of the false barks obtained from the mountain of Pitaya.

PITCH. Inspissated tar.

PITCH, BURGUNDY. A concrete resinous exudation from the *pinus abies.*

PITCH, JEW'S. Bitumen judaicum.

PITTA'CIUM. A pitch plaster.

PITTO'TA. Medicines in which pitch is an ingredient.

PITUITA. Phlegm; viscid mucus.

PITU'ITARY. *Pituitarius;* from *pituita,* phlegm. A name applied to parts which are supposed to be connected with the secretion of phlegm or mucus.

PITUITARY FOSSA. The depression in the sphenoid bone *(sella turcica)*

which gives lodgment to the pituitary gland.

Pituitary Gland. *Glandula pituitaria.* A small body, situated in the sella turcica. It is composed of two lobes, an *anterior* and *posterior*. The anterior is of a yellowish-gray color, and the posterior, grayish-white.

Pituitary Membrane. *Membrana pituitaria.* The mucous membrane that lines the nostrils and the sinuses which communicate with them.

PITYRI'ASIS. From πιτυρον, bran. A genus of scaly diseases, characterized by irregular patches of small scales, which repeatedly exfoliate and recur, but never form crusts. It occurs under several varieties of form. 1. *Pityriasis capitis*, dandriff. 2. *Pityriasis rubra*, which consists in the cuticle becoming, first red, then scurfy, and exfoliating, which process is frequently repeated. 3. *Pityriasis versi-color*, which is principally confined to the arms, chest and abdomen, and consists of exfoliations of scurfy cuticle, irregularly diffused and of a brown color.

PIVOT-BORER, ELLIOT'S. An instrument invented by Dr. W. H. Elliot, of Montreal, for forcing out wood pivots which have been broken in the fang; it resembles a very fine twisted gimblet, without the screw upon the point.

Pivots, Elliot's Hollow. An improvement, consisting in making the metallic pivot in the form of a tube, so that matter may escape through the centre of the artificial tooth.

Pivot Extractor, Elliot's. An instrument invented by Dr. Elliot, of Montreal, for removing a pivot from the root of a tooth after the crown has been displaced.

Pivot Gauge. An instrument constructed by Mr. G. F. J. Colburn for determining the proper size and length of the projecting portion of a pivot in an artificial tooth, previously to its introduction into the canal of the root to which it is to be applied.

Pivot Tooth. An artificial tooth designed to be applied to the root of a natural tooth, by means of what is usually termed a pivot, but more properly a dowel, or tenon. Also, a tooth thus applied.

Pivot Tooth, Manner of Inserting. The first thing to be attended to in the insertion of a pivot tooth, supposing the other parts of the mouth to be in a healthy condition, is to remove such portion of the crown of the natural tooth to be replaced, as may not have been previously destroyed by caries, with an oval or half round file.

The usual method of performing this part of the operation, consists in cutting the tooth about half off with a file, and then to complete it with a pair of excising forceps. But these should not be applied until the tooth has been cut with a file on every side, nearly to the pulp cavity, and even then they should be used with great care to prevent jarring, or otherwise injuring the root. When too large a portion of the crown is broken off suddenly with the common excising forceps, the concussion is often so great as to excite inflammation in the socket of the tooth, and sometimes to shatter the root. The crown of a tooth may, however, be excised by means of a very ingeniously constructed instrument, invented by Dr. Elliot, of Montreal, without causing much concussion.

When excising forceps are used, they should be strong, so as not to spring under the pressure of the hand of the operator, and their cutting edges about an eighth of an inch wide. The instrument above alluded to, however, will be found preferable to forceps of this kind.

After the removal of the remaining portion of the crown, the nerve, if still alive, should be immediately destroyed, by introducing a silver or iron wire, or some other small sharp-pointed instrument, as far up, at least, into the canal of the root, as it may be desirable for

the pivot to extend, giving it, at the same time, a quick rotary motion. It is important that the instrument used for this purpose, if it be of metal, should be soft and yielding, otherwise any sudden motion of the head of the patient might break it off in the tooth.

Some recommend destroying the nerve with the actual cautery by the introduction of a hot wire into the canal of the root, but as this is very liable to produce irritation in the surrounding tissues, the other method is far preferable.

The nerve having been destroyed, the balance of the operation will be unattended with pain. The root should now be filed off up to the gum and a little above its free edge, with a file such as we have described in another article.* The exposed extremity of the root after having been thus filed, will present a slightly arched appearance, corresponding with the festooned shape of the anterior margin of the gum.

After having completed the operation of filing, the natural canal in the root should be slightly enlarged with a burr-drill, or a broach prepared for the purpose. The canal thus formed in the root for the pivot should never exceed the sixteenth part of an inch or a line in diameter, and a quarter or three-eighths of an inch in length.

If from any peculiar susceptibility of the patient, there should be reason to apprehend inflammation of the alveolo-dental membrane, the tooth should not be immediately inserted. Dr. Fitch recommends filling the cavity in the root with lead, for the reason, as he believes, that this metal has a tendency to assuage, or rather to prevent the inflammation which might otherwise arise from the operation of filing. With regard to the value of this recommendation, we cannot speak with certainty, not having adopted the practice but in one or two cases. In subjects of a nervous temperament, or of a highly irritable habit of body, it may be well to recommend the use of saline aperients every other day, for a week, previously to preparing the root. Much advantage may sometimes be derived from the observance of this precaution.

But when the nerve in the root is destroyed, in the manner first described, it very rarely happens that inflammation supervenes, but if a root is employed in which the lining membrane has been previously destroyed, it is almost certain to follow the operation, unless an outlet is made, by cutting a groove on the side of the pivot, or in some other way, for the escape of the matter that is almost always formed, at the apex of a dead root. Dr. Maynard believes that the irritation in most cases, results from an accumulation of acrid matter in the upper part of the root, and that by filling the natural canal above the terminus of the pivot, up to the extremity of the fang, it may generally be prevented. In healthy living roots from which, in the extirpation of the nerve, he has removed it throughout the whole extent of their canal, the author has frequently adopted this practice, and in most cases with success.

After having prepared the root in the manner as just described, an artificial crown of the right shape, color and size, should be accurately fitted to it. It should touch every part of the filed extremity of the root, and made to rest firmly upon it, and at the same time be in an exact line with the circle of the other teeth. The practice of fitting the crown to the root anteriorly, and leaving an opening posteriorly, as is often done, should be carefully avoided, for the reason, that any opening here, affords a lodgment for foreign matter, which soon becomes putrid and offensive, and besides, the tooth itself is ren-

* The file employed for this purpose should be of the best quality, and it should be double or cross-cut and rather coarse than otherwise. Stub's should be preferred to any other manufacturer's.

dered less secure. The new tooth should also be so fitted, as not to press against the adjoining teeth, or strike its antagonist before the other teeth come together. In the former case, it would give rise to inflammation of the socket of the root, and in the latter, it would soon be displaced.

The canal in the root, and that in the artificial crown should be directly opposite to each other. When the crown of a natural tooth is used, the proper place for the pivot hole is indicated by the pulp cavity, but when a porcelain tooth is employed, if great care has not been taken in its manufacture, considerable difficulty will be experienced in its insertion.

If a porcelain tooth is to be used, one should be selected of the proper length, width and thickness. It should be as nearly as possible the shade of the adjoining teeth, and it would be preferable to have it even a little darker than any lighter, as in the former case the contrast would be less perceptible than in the latter. If it is necessary to make any change in the shape of the tooth, it may be readily effected on a small grindstone or emery wheel. A great number of grinding apparatuses have been invented for this purpose. Some are very simple in their construction, consisting of a single wheel, turned with a crank, others are more complex in their arrangement; but the object may easily and readily be accomplished with any now in use. Those of the simpler construction are kept by most instrument makers, from whom they can be procured.

When the crown of a natural tooth is employed, any change which it may be necessary to make in its shape, should be effected with a file. To obviate the difficulty sometimes experienced in making a perfect joint between the root and crown, Dr. E. Townsend, of Philadelphia, has recently invented two very ingenious instruments, consisting of an oval and hollow file—the former fitting exactly into the latter. With the first he files the root, and with the other, the base or part of the crown to be fitted to it, thus making a perfect joint.

The artificial crown may be secured to the root by means of a pivot made of wood or metal, and when the latter is employed, gold or platina should be preferred, inasmuch as silver or any baser metal is liable to be oxydized by the fluids of the mouth. If wood be used, it should be of the best quality of well seasoned white hickory, as this possesses greater strength and elasticity than any other that can be procured in this country. After being reduced to near the size of the orifice of the cavity in the artificial tooth, it should be forced through a smooth hole, of the size of that in the root, in a piece of ivory, bone, steel, or some other hard substance, for the purpose of compressing its fibres as closely together as possible. Thus prepared, one end should be forced into the cavity in the artificial crown, and the projecting part cut off about a quarter or three-eighths of an inch from the tooth, and this, after being fitted to the size of the orifice in the root, should be inserted in it; pressure should now be applied with the thumb and finger of the operator, to the tooth, and the pivot forced up into the canal in the root until the two come together. The part of the pivot going into the root, should never be so large as to require any other pressure than can be applied in this way for forcing it into it; as the swelling of the wood will soon render it sufficiently tight to hold it firmly in its place. The practice of driving up a pivot with a hammer, as is often done, is a bad one. It is often followed by inflammation and suppuration of the soft tissues about the apex of the root.

It sometimes becomes necessary to remove the artificial crown, and in doing this, the pivot often remains in the root. For the removal of this, Dr. W. H. Elliot has invented a pair of

forceps which the author has found very valuable.

When a metallic pivot is used, the end going into the artificial crown may be fastened in either of the following ways, namely: first, by cutting a screw on it, either with a file, or by passing it through a screw-plate; the cavity in the crown should next be filled with a wooden tube, and this then screwed into it. Second, by filling the cavity in the crown with pulverized borax, moistened with water, inserting the end of the pivot into it, which should be large enough to fill the cavity, placing several small pieces of solder around it, and applying heat to the tooth by means of a blow-pipe and lamp until it fuses and flows down around it into the tooth. The solder by adapting itself, when in a state of fusion, to the rough walls of the cavity in the crown of the tooth, will prevent the pivot from loosening or coming out. The latter method we consider preferable to the former. The projecting part of the pivot should be about half an inch in length, square and pointed. The cavity in the root of the tooth, which requires to be deeper for a metallic than for a wood pivot, should be filled with wood, with a small hole through the centre. Into this, the end of the pivot should be introduced and forced up, in the manner as before described, until the tooth and root come firmly together.

But when a metallic pivot is used, a plate-tooth is preferable to those which are made expressly for pivots. The manner of attaching a pivot to one of the former, is as follows: the root should be first prepared in the manner as before described; after which, an impression should be taken in wax, from this a plaster cast should be taken, and from the latter metallic casts. This done, a piece of gold plate large enough to cover the root, should be swaged up between the metallic casts, a plate-tooth of the proper size, shape and color, should then be fitted to the root, backed with gold, and soldered to the plate previously fitted to the root, and to the upper or convex surface of this last, and immediately beneath the canal in the root, a gold pivot should be attached. But, for the manner of conducting these various processes, see Mounting Porcelain Teeth upon a Metallic Base.

The author has been in the habit, for a number of years, of using a pivot, consisting of gold encased in a thin layer of wood. It is made in the following manner: the gold is first made into wire of the proper size, and passed through a screw-plate. A hole is then drilled lengthwise into a piece of well seasoned hickory as far as is required for the length of the pivot. Into this the wire is screwed, and then cut off close up to the wood, which is reduced with a file or knife, to the size of the orifice in the artificial crown, and firmly forced into it. The projecting part of the wood, to the termination of the wire, is trimmed down to the size of the cavity in the root, and cut off, when the tooth is ready for insertion.

This kind of pivot, he conceives to be, in many respects, preferable to either of the others. The wood prevents the gold from enlarging the cavity of the root, or that of the artificial tooth; and, at the same time, by the swelling of the wood, the pivot is firmly retained in both. The gold keeps the artificial tooth from being moved, as often happens, when a wood pivot alone is used, after it becomes saturated and softened with the juices of the mouth.

The gold employed for pivots should be eighteen carats fine, and the wood which we have found best suited to the purpose, is firm, close-grained, and well seasoned hickory. The cavity in the root should be cleansed from all extraneous matter, previous to the insertion of the tooth.

The artificial crown should be first fitted to the root with a temporary pivot of soft wood, in order the more

readily to ascertain in what manner the permanent one should be shaped, so as to make the tooth fit, and also to avoid the necessity of removing it after it has been firmly inserted.

There is some diversity of opinion with regard to the kind of pivots that should be used. Some prefer those made of wood, others those of metal. Dr. Fitch, on this subject, observes: "The metallic pivots are far better than any other; and their only objection is, that they are apt to wear the tooth that is placed upon them, and the stump in which they are inserted; and so much so do they have this effect, that we are induced to use pivots of wood. This last has the advantage, if perfectly seasoned, of swelling in the stump, by the moisture which they absorb; and, in this way, become very firm. The advantages and disadvantages of the two kinds, are, perhaps, nearly balanced."

To the use of wood pivots, however, Dr. Koecker is decidedly opposed.—"The pivots," says he, "should be made only of fine gold or platina; every other metal, such as brass, copper, silver, and even inferior gold, are highly objectionable, being more or less liable to corrode, and thus become injurious to the other teeth and the general health. There is, however, a practice, which is still more improper, namely, the use of pivots made of wood: these pivots, after insertion, considerably expand, from the moisture of the mouth, and consequently remain perfectly firm in the roots for several years, which deceive not only the patient, but the dentist also, and induces them to consider the case very successful, until they at last find that the root is either split by the swelling of the pivot, or nearly destroyed by the rapid decay of the wood in the cavity, which by its chemical and mechanical irritation, is very apt to produce very serious inflammation, and other affections of the gums and sockets; and, not the least objection, the disagreeable breath, which must be an unavoidably concomitant of this practice."

Again, on the insertion of pivoted teeth, Dr. K., in another place, adds: "I have made it an universal rule to insert the tooth in such a manner, that the patient should be capable, after receiving the necessary instructions, to remove it, and replace it, at pleasure; for this purpose, I have found it best, and most effectual, to wind a little cotton round the pivot, which should be filed somewhat rough previous to its insertion into the fang."

The description here given of the effects arising from the use of a pivot of wood, is perhaps, somewhat exaggerated. If it be inserted with proper care and judgment, it is no more liable to produce irritation and to effect the breath, than a gold one, wrapped with cotton, or one made of any other metal. The fact that wood pivots remain firmly in the root for several years, ought rather to be considered as a recommendation, than an objection; and with us, we must confess, it would go far towards determining our preference in their favor; for observation has taught us, that the frequent removing and replacing of a pivoted tooth, greatly tends to hasten the destruction of the root, and to effect the surrounding parts with disease. But a wood pivot should never be so large as to split the root by swelling.

As a general rule, not more than two roots should be prepared at one sitting, though sometimes four or even six may be, without incurring any risk.

The walls of the canal in the root, when an artificial tooth is applied with any of the pivots which have as yet been described, is, of necessity, exposed to the action of the fluids of the mouth, and, consequently, are gradually softened and broken down, so that in the course of a few years, a larger pivot will be required, and this, too, after awhile, will have to be replaced with one still larger, until, finally, the root is

destroyed. This destructive process proceeds much more rapidly in some cases than in others, according as the root is hard or soft, and as the secretions of the mouth are in a healthy or vitiated condition.

But the action of the fluids of the mouth upon the walls of the canal may be prevented by introducing a hollow gold screw for the reception of the pivot. This effectually protects the walls of the canal in the root against the action of all corrosive agents, and a root thus prepared, will support an artificial crown more than twice as long as when prepared in the ordinary way. The operation, however, is more tedious and expensive, but it is by far more valuable. When a tooth is applied to a root thus prepared, a gold pivot of the exact size of the hollow of the screw should always be employed.

For the preparation of a root in this manner, the following is the method of procedure adopted by the author: first, the crown of the natural tooth is removed, the nerve, if alive, destroyed, and the canal in the root enlarged in the manner as before directed. Second, a screw-tap slightly larger than the canal in the root is then introduced for the purpose of cutting a screw on its inner walls. Third, a screw should then be cut on a piece of hollow gold wire of the size of the screw-tap by passing it through a screw-plate, but during this process the hollow in the wire should be filled with another wire to prevent injury. This done, it should be screwed into the root about a quarter of an inch, the wire on the inside of it then withdrawn, and the lower or protruding extremity filed off even with the root with a very fine file. Fourth, an artificial tooth should now be selected of the right size, shape and color, and fitted to the root, after which a gold pivot should be fixed in it in the manner as before directed, of the exact size of the hollow in the screw, and to the length of which, it should also correspond. Having proceeded thus far, the operation is completed by applying the tooth to the root. The pivot being of the size of the hollow in the cylindrical screw, but little pressure is required to force the one into the other.

The stability of a tooth, inserted in this manner, is as great, if the pivot be of the proper size, as one inserted by any of the other methods, and it may be removed, cleansed and replaced at the pleasure of the patient. When the walls of the canal are so much enlarged by decay as to have formed a large conical shaped cavity in the lower extremity of the root, the upper end of the hollow or cylindrical screw will only take effect. In this case the space between the lower extremity and the walls of the root, should be thoroughly filled with gold before the wire on the inside is withdrawn; after which the tube and extruding portions of the gold should be filed off even with the root, and polished before the artificial crown is applied.

The hollow wire is made by wrapping a piece of thin gold plate round a wire of the size of that to be used for the pivots. It is then drawn through a hole in a wire plate. The inner wire is then removed, and the seam in the other soldered. But hollow wire may be procured of the proper size at much less expense than it can be made by a dentist, and every practitioner, therefore, should be supplied with it.

It sometimes happens that the natural root, instead of occupying a vertical position in the jaw, passes up obliquely, so that if the pivot connecting the artificial tooth to it be straight, the latter will either overlap one of the adjoining teeth or project forwards or point towards the interior of the mouth. To obviate this, an angle should be given to the pivot, immediately at the point of junction between the tooth and the root. A little practice will enable the operator readily to overcome a difficulty of this description.

Again, it sometimes happens that cases are met with presenting a still more formidable difficulty; as for example, when the root is situated behind the circle of the other teeth, and to obviate which, a different kind of tooth, and an entirely different course of procedure, is necessary. In a case of this sort, after having prepared the root in the manner as before described, an impression of the parts should be taken with wax, from which a plaster model should be obtained, and from this two metallic casts. Between these last a gold plate extending just far enough back to cover the root and sufficiently forward to form a line with the outer circle of the teeth. To the superior part of the plate covering the root, and directly beneath the cavity in it, a gold pivot, about three-eighths of an inch long, should be soldered, and to the anterior part a plate tooth of the right size, shape and shade, should be attached. A piece of hollow wood, or a hollow gold screw, as before described, should now be introduced into the root for the reception of the gold pivot.

PITYRON. Bran.

PIX. Pitch.

Pix Abietis. Burgundy pitch.

Pix Arida. Pix nigra.

Pix Burgundica. Burgundy pitch.

Pix Canadensis. Canada pitch.

Pix Liquida. Tar.

Pix Nigra. Black pitch.

PLACE'BO. I will please. A term applied to a medicine intended rather to please than benefit.

PLACEN'TA. The after birth.

Placenta Febrilis. The ague cake.

Placenta, Vegetable. The cellular substance in the carpels of plants from which the ovules originate.

PLADARO'SIS. *Pladarotes;* from πλαδαρος, soft. A soft tumor within the eyelid.

PLAGUE. Pestis.

Plague, Black. Pestis nigra.

Plague Cold. A congestive fever occurring in the southern states in which there is little or no reaction. Bilious pneumonia.

PLAGU'LA. A compress, pledget, or splint.

PLAITED. Plicate.

PLANA'RIA LATRUSCU'LA.—Distoma hepatica.

PLANE. From *planum*, flat. A surface without elevation or depression.

PLANER. Dissertation on Odontalgia, by. Tal., 1695.

PLANT. An organized body, belonging to the vegetable kingdom.

PLANTA. A plant.

PLANTA'GO. Plantago major; also, the name of a genus of plants.

Plantago Coron'opus. The buck's-horn plantain.

Plantago Latifo'lia. Plantago major.

Plantago Major. The broad-leaved plantain.

Plantago Psyl'lium. The branching plantain.

PLANTAIN. Plantago major.

Plantain-Tree. Musa sapientum.

Plantain, Water. Alisma plantago.

PLAN'TAR. *Plantaris;* from *planta*, the sole of the foot. Belonging, or relating, to the sole of the foot.

Plantar Aponeurosis. The thick, dense aponeurosis, situated under the integuments of the sole of the foot.

Plantar Arteries. Two arteries, an *external*, and *internal*, arising from the extremity of the posterior tibial.

Plantar Ligaments. The inferior ligaments of the tarsus and metatarsus.

Plantar Muscles. The extensor tarsi minor. Plantaris.

Plantar Nerves. Two nerves, an *internal* and *external*, proceeding from the posterior tibial; the *internal* to the first three toes, and the *external*, to the outer side of the fourth and fifth, and to the muscles situated on the outer side of the foot.

PLANTA'RIS. The plantar muscle.

PLANUM, OS. A name formerly given to the orbitar plate of the ethmoid bone.

PLASMA. From πλασσω, I form. The liquor sanguinis. The fluid part of the blood in which the corpuscles float.

PLASTER. See Emplastrum.

Plaster of Paris. See Gypsum.

PLASTIC. *Plasticus;* from πλασσω, I form. That which forms.

Plastic Element. That from which growth takes place.

Plastic Force. The formative power of organized bodies.

PLAS'TRON. The under part of the shell of the tortoise.

PLATA. The scapula.

PLAT'INUM. *Platina;* from *plata*, silver. A metal nearly of the color of silver, very malleable and ductile, harder than iron, resisting the action of acids and alkalies, and fusible only at a very high temperature. In France, it has been extensively used as a base for artificial teeth, and, also, for filling teeth, but its employment in the United States for these purposes is very limited.

Platinum, Spongy. Porous platinum, obtained by heating the chloride of this metal and ammonium to redness.

Platinum, Black. A black powder, obtained by decomposing a weak solution of the chloride of platinum by galvanism.

PLANTOU, A. A. Plantou, late dentist, of Philadelphia, but a native of St Bartholomew department of Lot and Garonne, France, was born 1774, and graduated in the Royal Academy of Medicine and Surgery at Paris, in 1805; in which place, after an absence of seven years, he practiced the profession of dental surgery until 1817, when he came to Philadelphia. It is to Dr. P., so far as the author has been able to ascertain, that we are indebted for the introduction of mineral teeth in the United States, and also for many improvements made in their fabrication, as is shown by a certificate of approbation granted him by the Medical Society of Philadelphia, in 1822. He died March 16th, 1837, in the 63d year of his age.

PLATYS'MA MYOIDES. A thin muscle situated on the side of the neck.

PLEC'TRUM. The styloid process of the temporal bone; also, the uvula.

PLEDGET. A small compress of of lint, to be applied to wounds, ulcers, &c.

PLENCK, J. J. Doctrine of the Diseases of the Teeth and Gums, by. Vienna, 1778, Nap., 1781.

Plenck's Odontalgic Lotion. ℞.—Rad. pyrethrium, ʒ ij; muriate of ammonia, ʒ i; extract of opium, gr. ij; distilled lavender water, ʒ ij; distilled vinegar, ʒ ij; mix—digest for several days and filter.

PLERO'SIS. Plethora.

PLETHO'RA. From πληθω, I fill. Excessive fullness of the blood-vessels.

PLEUMO'NIA. Pneumonia.

PLEU'RA. Πλευρα, the side, or a rib. The serous membrane which lines each cavity of the chest, and is reflected upon each lung.

PLEURAL'GIA. From πλευρα, the side, and αλγος, pain. Pleurodynia.

PLEURENCHY'MA. The woody tissue of plants.

PLEURISY. Pleuritis.

Pleurisy, False. Pleurodynia.

Pleurisy Root. Asclepias tuberosa.

Pleurisy, Rheumatic. Pleurodynia.

PLEURI'TIS. From πλευρα, the pleura, and *itis*, a terminal, denoting inflammation. Inflammation of the pleura. Pleurisy.

Pleuritis Bronchialis. Bronchitis.

Pleuritis Spuria. Pleurisy, false.

PLEUROCE'LE. Hernia of the pleura.

PLEURO-COLLE'SIS. From πλευρα, the pleura, and κολλαω, I glue. Adhesion of the pleura.

PLEURODYN'IA. From πλευρα, the pleura, and οδυνη, pain. Rheumatic pain over the intercostal muscles.

PLEUROPATHI'A. From πλευρα, the pleura, and παθος, a disease. A disease of the pleura.

PLEUROPERIPNEU'MONIA. Inflammation of the pleura and lungs at the same time.

PLEURORTHOPNÆ'A. From πλευρα, the pleura, ορθος, upright, and πνεω, I respire. A pleurisy in which the patient cannot breathe, except in an upright position.

PLEUROTHOT'ONOS. From πλευροθεν, laterally, and τονος, tension. A form of tetanus in which the body is drawn to one side.

PLEXIM'ETER. From πληξις, percussion, and μετρον, a measure. An ivory plate used in percussion.

PLEX'US. From *plecto*, I intertwine, I interlace. A network of blood-vessels, or nerves.

Plexus Cardiacus. The cardiac plexus formed by a union of the eighth pair of nerves with the great sympathetic.

Plexus Choroides. The choroid plexus.

Plexus Glandulosi Peyeri. Peyer's glands.

Plexus Median. The cœliac, or solar plexus.

Plexus Pulmonicus. The pulmonic plexus.

Plexus Reticula'ris. The network of vessels under the fornix.

Plexus Retiformis. The corpus cavernosum vaginæ.

Plexus, Solar. A plexus formed by numerous nervous filaments from the semilunar ganglia of the great sympathetic nerve.

PLI'CA. From *plicari*, to be knit together. A disease characterized by a matting, interlacing and agglutination of the hair.

Plica Polonica. Plaited hair.

Plica Semilunaris. A slight folding of the conjunctive membrane on the outer side of the caruncle.

PLICARIA. The club moss.

PLICATIO. Plica.

PLICÆ. From *plica*, a fold. Folds of membrane.

PLI'ERS. A kind of pincers for seizing, holding, or binding any small body. Those used in the laboratory of the dentist, and by jewellers, have long slim jaws, the inner surfaces of which are rough like a file, and meet each other when closed. Some have round jaws.

PLISSON. Observations on a new method of Curing certain Pains of the Teeth, by. Lyons, 1788.—Observations on an Extraordinary Disease of the Gums, by. Lyons, 1791.

PLOUCQUET. Dissertation. Does the Pain proceed from Inflammation of the Nerves of the Tooth itself? by. Tub. 1794.

PLOUGH, A. L. General Observations upon the Importance of the Teeth, by. New Orleans, 1836.

PLUG'GING. In *Surgery*, the introduction of lint or pieces of rag into a wound, the socket of a recently extracted tooth, vagina, &c., to arrest hemorrhage, and sustain the parts. In *Dental Surgery*, an operation to arrest the progress of caries of the teeth.

Plugging Teeth. See Filling Teeth.

PLUM. Prunus domestica.

PLUMBA'GO. One of the purest native forms of carbon, with the exception of the diamond. In popular language, black lead. Also, the name of a genus of plants.

Plumbago Europæa. Toothwort.

PLUMBI ACETAS. Acetate of lead. Sugar of lead.

Plumbi Carbonas. Carbonate of lead.

Plumbi Chloridum. Chloride of lead.

Plumbi Diacetatis Solutio. Solution of subacetate of lead.

Plumbi Iodidum. Iodide of lead.

Plumbi Nitras. Nitrate of lead.

Plumbi Oxydum Rubrum. Red oxyd of lead.

Plumbi Oxydum Semivitreum.—Semivitrified oxyd of lead.

Plumbi Oxydum Hydra'tum. Hydrated oxyd of lead.

Plumbi Subacetatis Liquor Com-

POSITUS. Diluted solution of subacetate of lead. Lead water.

PLUMBUM. Lead.

PLUMBUM CANDIDUM. Tin.

PLUMBUM CINEREUM. Bismuth.

PLUMBUM NIGRUM. Plumbago.

PLUMBUM USTUM. Burnt lead.

PLUMO'SE. *Plumosus.* Feathered.

PLUMU'LA. A small feather.

PLUVIOME'TER. A rain gauge.

PNEUMARTHRO'SIS. From πνευμα, air, and αρθρον, a joint. A collection of air in an articular cavity.

PNEUMAT'IC. *Pneumaticus;* from πνευμα, air. Of, or belonging to, air, or gas.

PNEUMATIC TROUGH. A vessel made of wood or metal, and used for the purpose of making experiments with gases.

PNEUMAT'ICA. Diseases of the air passages.

PNEUMATICS. From πνευμα, air. The science which treats of the physical properties of elastic fluids, and especially of atmospheric air.

PNEUMATOCE'LE. From πνευμα, air, and κηλη, a tumor. Physocele.

PNEUMATOM'ETER. An instrument by which the quantity of inspired air can be ascertained.

PNEUMATOM'PHALUS. From πνευμα, air, and ομφαλος, the umbilicus. An umbilical hernia containing air.

PNEUMATO'SIS. From πνευματοω, to inflate. Distention of the abdomen with flatus. Emphysema. Four species are mentioned. 1. *Pneumatosis spontanea,* without any obvious or apparent cause. 2. *Pneumatosis traumatica,* from a wound. 3. *Pneumatosis venenata,* from poison. 4. *Pneumatosis hysterica,* from hysteria.

PNEUMATOSIS ABDOMINIS. Tympanitis.

PNEUMATOSIS ENTERICA. Flatulence.

PNEUMATOTHO'RAX. Pneumathorax.

PNEUMOGAS'TRIC NERVE.—From πνευμων, the lung, and γαστηρ, the stomach. The eighth pair of nerves, *par vagum,* has been so named, because it is distributed to the organs contained in the thorax and abdomen.

PNEUMOG'RAPHY. *Pneumographia;* from πνευμων, the lung, and γραφη, a description. A description of the lungs.

PNEUMO'HÆMORRHAGI'CA. Hemorrhage from the lungs.

PNEUMOL'OGY. *Pneumologia;* from πνευμων, the lung, and λογος, a discourse. A treatise on the lungs.

PNEUMON. The lungs.

PNEUMO'NIA. Pneumonitis.

PNEUMONIA, TYPHOID. Inflammation of the lungs, accompanied by gastric fever and typhoid symptoms; bilious pneumonia.

PNEUMON'ICA. Disease affecting the lungs—the second order in the class *pneumatica,* in Good's Nosology.

PNEUMONIT'IC. Belonging, or relating, to pneumonitis.

PNEUMONI'TIS. From πνευμων, the lungs, and *itis,* a terminal, denoting inflammation. Inflammation of the lungs.

PNEUMONO'SIS. Diseases of the lungs.

PNEUMO-PERICARDIUM. *Pneumo-pericarditis;* from πνευμα, air, and περικαρδιον, pericardium. Effusion of air into the cavity of the pericardium.

PNEUMO-PLEURI'TIS. Pleuritis.

PNEUMORRHAG'IA. Hæmoptysis.

PNEUMOTHO'RAX. From πνευμα, air, and θωραξ, the thorax. Effusion of air in the cavity of the pleura.

PNEUMOT'OMY. *Pneumotomia;* from πνευμων, the lung, and τεμνω, I cut. Dissection of the lungs.

PNEUSIS. Respiration.

PNIGOPHOBIA. Incubus.

PNIX. Strangulation.

POD'AGRA. From πους, the foot, and αγρα, seizure. Pain in the feet. Gout in the feet.

PODARTHROC'ACE. Caries in the articulations of the foot.

PODONIP'TRUM. A foot bath.

PODOPHTHALMA. From πους,

a foot, and οφθαλμος, an eye. The tribe of crustacea in which the eyes are supported upon stalks.

PODOPHYL'LUM. The name of a genus of plants.

PODOPHYLLUM PELTA'TUM. Mandrake; may-apple.

PODOPHYLLUM MONTA'NUM. The mountain may-apple, or mandrake.

PODOTHE'CA. An anatomical preparation of the foot.

POGON. Beard.

POGONI'ASIS. *Pogonia;* from πωγων, the beard. Female beard.

POISON. *Venenum; toxicum.* Any agent, which, when introduced into the body, or applied externally, uniformly exerts a noxious or dangerous effect. Such agents exist in the animal, vegetable and mineral kingdoms. Orfila arranges them into four classes: 1. *Irritant.* 2. *Narcotic.* 3. *Narcotico-acrid.* 4. *Septic.* Christison reduces them into three classes: 1. *Irritant.* 2. *Narcotic,* and 3. *Narcotico-acrid,* which are thus arranged:

1. *Irritant Poisons.*

The mineral acids.
Phosphorus.
Sulphur.
Chlorine.
Iodine.
Hydriodate of potash.
Bromine.
Oxalic acid.
The fixed alkalies.
Nitre.
Alkaline and earthy chlorides.
Lime.
Ammonia and its salts.
Alkaline sulphurets.
The compounds of arsenic.
The compounds of mercury.
The compounds of copper.
Trollius.
Mezereon.
Arum.
Gamboge.
Daffodil.
Jalap.
Savin.
The compounds of antimony.
The compounds of tin, silver, gold, platinum, bismuth, chrome and zinc.
The compounds of lead and baryta.
Euphorbia.
Castor oil seeds.
Physic nut.
Bitter cassada.
Manchineel.
Croton oil.
Bryony.
Colocynth.
Elaterium.
Ranunculus.
Anemone.
Caltha.
Clematis.
Cantharides.
Poisonous fish.
Venomous serpents and insects.
Diseased and decayed animal matter.
Mechanical irritants.

2. *Narcotic Poisons.*

Opium.
Hyoscyamus.
Lactuca.
Solanum.
Hydrocyanic acid.
The vegetable substances which contain hydrocyanic acid, are, bitter almonds, cherry-laurel, peach, cluster-cherry, mountain-ash.
Nitric oxyd gas.
Chlorine gas.
Ammoniacal gas.
Muriatic acid gas.
Sulphureted hydrogen.
Carbureted hydrogen.
Carbonic acid.
Carbonic oxyd.
Nitrous oxyd.
Cyanogen.
Oxygen.

3. *Narcotic Acrid Poisons.*

Nightshade.
Thorn-apple.
Tobacco.
Lobelia.

Hemlock.
Water hemlock.
Hemlock dropwort.
Fool's parsley.
Monk's-hood.
Black hellebore.
Ipecacuanha.
Squill.
White hellebore.
Meadow saffron.
Foxglove.
Strychnia.
Nux vomica.
St. Ignatius' bean.
False angustura.
Camphor.
Cocculus indicus.
Upas antiar.
Coriaria myrtifolia.
Poisonous fungi.
Poisonous mosses.
Secale cornutum.
Mouldy bread.
Darnel grass.
Seeds of lathyrus cicera.
Seeds of the bitter vetch.
Seeds of the common laburnum.
Alcohol.
Ether.
Some empyreumatic oils.

Poison Berry. The melia azedarac.

Poison Fangs. The hollow teeth in the upper jaws of vipers, rattlesnakes, &c., through which the poison is discharged.

Poison Nut. Strychnos nux vomica.

Poison Oak. Rhus toxicodendron.

Poison Vine. Rhus radicans.

POKE, INDIAN. Veratrum viride.

Poke Weed. Phytolacca decandra.

POLAR Relating to poles or polarity.

POLAR'ITY. That property of bodies in consequence of which, when free, they tend or point to certain determinate directions, as the magnetic needle.

POLARIZA'TION. The state of a body which causes it to exhibit polarity; act of polarizing, or of giving polarity to a body: thus, light when changed by the action of certain media, by which it is caused to exhibit the appearance of having polarity, or poles possessing different properties, is said to be polarized.

POLEMON'IUM. The name of a genus of plants.

Polemonium Cæru'leum. The Greek valerian; Jacob's-ladder.

POLES. In *Astronomy*, the extremities of the axis on which a sphere revolves. In *Electricity* and *Galvanism*, the poles, or parts of a magnet, which exhibit the phenomena of attraction.

POLH. Dissertation on Difficult Dentition of Infants, by. Leipsic, 1776.

POLIA'TER. From πολις, a town, and ιατρος, a physician. A physician practicing in a town by authority of government.

POLIO'SIS. Hair prematurely gray or hoary.

POL'ISHING BRUSH. An instrument employed in the laboratory of the dentist for polishing the metallic portions of any appliance or piece of mechanism intended to be placed in the mouth. It sometimes consists of a simple brush, like that used for cleaning the teeth, except that it is longer and a little wider, and at other times, of a brush-wheel.

Polishing Rouge. *Jeweller's rouge.* A polishing powder, made by dissolving copperas in water, filtering the solution, and adding a filtered solution of pearlash, or sub-carbonate of soda, as long as any sediment falls. The liquor is then filtered again, and the sediment left on the filter, washed by running clean water through it, and then calcined until it is of a scarlet color. This, in finishing a piece of dental mechanism, may be very advantageously employed. It gives to metal, capable of receiving a high polish, when rubbed on it, a beautiful finish.

Polishing Wheel. A small wheel with the peripheral surface covered with buckskin or other soft leather, and made to revolve on the mandrel of a lathe.

POLIUM CRETICUM. Teucrium creticum.

Polium Montanum. Teucrium montanum.

POL'LEN. From *pollis*, fine flour. The meal-like fecundating dust contained in the anther of flowers, and dispersed on the stigma for impregnation. Also, farina.

Pollen Tube. The delicate tubular extension of the pollen grain after it reaches the stigma.

POLLEX. The thumb; also the great toe.

POLLU'TION. *Pollutio*; from *polluo*, I profane. The emission of semen at other times than during coition; when involuntary, at night, during sleep, it is called *nocturnal pollution*. When excited by a voluntary act, it is called *masturbation*, or *self-pollution*.

POLY-. A prefix, signifying many.

POLYADEL'PHIA. *Polydelphous*; from πολυς, many, and αδελφος, a brother. Plants with hermaphrodite flowers, in which several stamens are united by filaments into several packets or bundles.

POLYÆ'MIA. Plethora.

POLYAN'DRIA. *Polyandrous*;—from πολυς, many, and ανηρ, a husband. Hermaphrodite plants having more than twenty stamens, inserted in the receptacle.

POLYCHO'LIA. From πολυς, much, and χολη, bile. Excess of bile.

POLYCHRES'TUS. From πολυς, many, and χρηστος, useful. Having many virtues or uses: formerly applied to medicines which were supposed to be useful in many diseases.

POLYDAC'TYLUS. From πολυς, many, and δακτυλος, a finger. One who has one or more supernumerary fingers, or toes.

POLYDIP'SIA. From πολυς, much, and διψη, thirst. Excessive thirst.

POLYG'ALA. The name of a genus of plants.

Polygala Amara. Bitter milkwort.

Polygala Paucifo'lia. Dwarf milkwort.

Polygala Sen'ega. Rattlesnake milkwort. The bark is the active part of the root.

Polygala Virginiana. Polygala senega.

POLYGA'MIA. Plants with hermaphrodite flowers, and male or female flowers, or both.

POLYGAS'TRIA. From πολυς, many, and γαστηρ, a stomach. A class of infusorial animalcules which have many stomachs.

POLYGONA'CEÆ. The buckwheat tribe of dicotyledonous plants.

POLYGONA'TUM. Convallaria polygonatum.

POLYG'ONUM. The name of a genus of plants.

Polygonum Avicula're. The knotgrass.

Polygonum Bistor'ta. The officinal bistort. Great bistort or snakeweed.

Polygonum Divarica'tum. The eastern buckwheat plant.

Polygonum Fagop'yrum. The buckwheat plant.

Polygonum Hydropiper. The poor-man's pepper; biting arsesmart; water pepper.

Polygonum Persica'ria. *Persicaria*. Arsesmart.

POLYLYMPH'IA. Anasarca.

POLYMERIS'MUS. From πολυς, much, and μερος, a part. A monstrosity, in which there is an excess or multiplicity of organs or parts of the body.

POLYOP'SIA. From πολυς, much, and οψις, sight. Vision, in which a person sees more objects than are present.

POLYPE'RIA. From πολυς, much, and πηρος, mutilated. Congenital misconstruction.

POLYPET'ALOUS. Many-petaled.

POLYOREX'IA. From πολυς, much, and ορεξις, appetite. Excessive hunger.

POLYPHA'GIA. From πολυς, much, and φαγω, I eat. Voracity. See Pica.

POLYPI. From πολυς, many, and πους, a foot. A class of radiated animals with many prehensile organs radiating from around the mouth.

POLYPHYL'LOUS. Applied to plants which bear many leaves.

POLYPO'DIUM. The name of a genus of plants.

Polypodium Aculeat'um. Spear-pointed fern.

Polypodium Filix Mas. Aspidium filex mas. Male polypody, or fern.

Polypodium Vulga're. Common polypody. Fern root; rock brake.

POLYPODY, MALE. Aspidium filex mas.

POLYPODY OF THE OAK. Polypodium vulgare.

POL'YPOID. Shaped like, or resembling, a polypus.

POLYPO'SIA. From πολυς, much, and ποσις, drink. Great thirst.

POLYPUS. From πολυς, many, and πους, foot. In *Zoology*, a class of zoophytes. In *Surgery*, a morbid excressence developed from mucous membrane, as in the nasal fossa, uterus, &c.

Polypus Bronchialis. A membranous secretion in the bronchial tubes of a diphtheritic character.

POLYSAR'CIA. From πολυς, much, and σαρξ, flesh. Excessive corpulency; fatness.

POLYS'TOMA. From πολυς, many, and στομα, a mouth. The name of a genus of worms.

Polystoma Pinguicola. A species of worm found in a fatty tumor covering the ovary of a female.

POLYT'RICHUM. *Polytrycon.*—The name of a genus of mosses.

Polytrichum Commune. The golden maiden-hair.

POLYTROPH'IA. From πολυς, much, and τρεφω, I nourish. Excessive nutrition.

POLYURIA. Diabetes.

POMA'CEÆ. From *pomum*, an apple. That division of the natural order of *rosaceæ*, to which the apple, pear, quince, and medlar belong.

POMA'CEUM. Cider.

POMA'TUM. A fragrant ointment.

POMEGRANATE. Punica granatum.

POMADE D'ALYON. Ointment of nitric acid.

Pomade D'Autenrieth. Tartar emetic ointment.

Pomade de Gondret. Vesicating pomatum of ammonia.

POMPH'OLYX. From πομφος, a bladder. A small vesicle. An eruption of bullæ, without fever, and without inflammation around them.

POMPHOS. A blister; a bubble.

PO'MUM. An apple. Also, a fleshy, pulpy pericarp, containing a membranous capsule in it with several seeds.

Pomum Adami. Adam's-apple; the projection formed on the anterior part of the neck by the thyroid cartilage.

Pomum Amoris. The love-apple, or tomato plant.

PONDER'ABLE. From *pondus*, weight. That which has weight.

PONDO. A pound weight.

PONS. A bridge.

Pons Hepatis. A name given to a bridge crossing the passage for the roung ligament of the liver from the lobulus anonymus.

Pons Ta'rini. The layer of grayish substance between the corpora albucantia, which forms the *locus perforatus* of the floor of the third ventricle of the brain.

Pons Varo'lii. An eminence at the upper part of the medulla oblongata, formed by the union of the crura cerebri and crura cerebelli. Varolius' bridge.

POOR-MAN'S PEPPER. Polygonum hydropiper.

POPLAR, AMERICAN. Liriodendron tulipiferum.

POPLES. The back part of the knee joint.

POPLITE'AL. *Popliteus;* from *ples*, the ham. Belonging, or relating, to the ham.

Popliteal Aneurism. An aneurism of the popliteal artery.

Popliteal Artery. The continuation of the femoral artery in the hollow of the ham.

Popliteal Nerves. The two branches formed by the bifurcation of the sciatic in the popliteal space.

POPLITE'US. A long, flat, triangular muscle situated in the popliteal region.

POPPY. See Papaver.

Poppy, Red Corn. Papaver rhœas.

Poppy, White. Papaver somniferum.

POP'ULUS. *Populus nigra.* Also, the name of a genus of trees.

Populus Balsamife'ra. One of the trees supposed to yield the *tacamahaca*, a resinous substance having a delightfully fragrant smell.

Populus Nigra. The black poplar.

Populus Tremu'la. The European aspen.

Populus Tremuloides. The American aspen.

POR'CELAIN. Decomposed feldspar, of which the finest species of earthenware is made.

Porcelain Teeth. *Mineral teeth; incorruptible teeth; silicious terro-metallic teeth; vitrescent teeth.* Dental substitutes, resembling, more or less closely, the shape and color of the natural teeth, so constructed that they may be securely fixed to the various attachments employed for their adjustment and maintenance in the mouth, composed of feldspar, silex and other mineral substances.

Porcelain, like human teeth, consist of two portions, an internal and external. The internal, called the body or base, is more or less opaque—the external, called the enamel, is semi-transparent, and has a smooth glossy surface. The base or body of porcelain teeth is composed principally of *kaolin*, and the enamel or covering of *feldspar* and *silex*. Besides these, various metallic oxyds or metals, reduced to a state of minute division are employed for imparting to the teeth the necessary color.

Kaolin.

This is the Chinese name for *porcelain clay*, which is evidently a result of the decomposition of feldspar, and, generally, consists of nearly equal proportions of alumina and silica. When pure, it is infusible in the porcelain kiln, is of a yellowish, or reddish-white color, and is found in the United States, at Fairmount, near Philadelphia; on the Columbia rail-road; near Wilmington, Del.; in Missouri; at Montonk, Vt., and at Washington, Conn.

As kaolin can always be procured at porcelain manufactories, ready for use, a description of the manner of preparing it is not deemed necessary.

Feldspar.

This mineral is of a white, gray, red, brown, or bluish color, and occurs in a crystallized state, in the form of oblique rhomboidal prisms, but the only kind suitable for use, is pure white, or that which is nearly so. According to Rose, it consists of silica, 66.75; alumina, 17.50; potash, 12; lime, 1.25, and oxyd of iron, 0.75.

The common feldspar is found in various parts of the United States, and the finer kinds, near Baltimore, Md.; at Ticonderoga, N. Y.; near Fairmount, Philadelphia; at Conestoga Creek, Pa; at Southampton, Oakham and West Springfield, Mass.; and at Hadom and Lyme, Conn.

Previously to being used, feldspar is put upon a fire and heated to a red heat, then thrown into cold water. It should now be broken into small pieces, and after removing the impurities, be reduced, in a mortar or on a slab, to fine powder. This is easily fused, and when united with kaolin, diffuses itself, in baking, throughout the mass, giving to it a beautiful semi-transparent appearance.

Silex.

This occurs in nearly a pure state, in flint, quartz and white sand, but for use, the crystalline form should be selected. The rock crystal, or pure silex,

is found in great abundance in Frederick county, Md.; at Lake George, N. Y.; at Abington and Plainfield, Mass.; Grafton, Vt.; West Hartford, Conn.; St. Lawrence co. N. Y.; Newbury, S. C.. White Mountains, N. H., and in several counties in Virginia and Kentucky. The manner of preparing it for use, consists in first heating it to a red heat, and then plunging it in water, when it should be reduced to a fine powder.

Lime.

The carbonate of lime or chalk, is the form which is used in the manufacture of porcelain teeth.

Materials for Coloring Porcelain Teeth.

The materials employed for coloring porcelain teeth, are metals in a state of minute division, or metallic oxyds, mixed in certain proportions with the body, or enamel, or with both. Teeth are frequently colored by painting them, after they have been burnt. The process is as follows: take of titanium four parts, glass one part, mix with oil of turpentine, and grind fine on a glass slab, then apply it to the teeth with a camel's-hair pencil. When thoroughly dry, place them, for the third time, in the furnace, and let them remain there until the enamel and color fuse and blend together. But in coloring in this manner, it is important that the titanium shall have no iron in it, as in that case the teeth will discolor under the blow-pipe.

The only metals and oxyds that can be relied upon for coloring teeth, are the following:

Materials used.	*Color given.*
Gold in filings and its oxyds,	Bright rose red.
Purple powder of Cassius,	Rose purple.
Platina sponge or filings,	Grayish blue.
Oxyd titanium,	Bright yellow.
Oxyd uranium,	Greenish "
Oxyd cobalt,	Bright blue.

Gold, in filings or gold-leaf, when used thus, may be ground fine upon a slab with a muller, by adding some pulverized spar.

Peroxyd of Gold.

Dissolve gold foil or pure gold in *aqua regia*, composed of one part muriatic acid, and two parts of nitric acid, precipitate the solution with ammonia, being careful not to add too much ammonia, then pour off the acid and wash the precipitate with warm water several times, or until there is no acid left, then dry it over a gentle fire.

The Purple Powder of Cassius.

The following are the rules adopted by Thenard:

"Make an *aqua regia* of one part of muriatic or chloro-hydric acid, and two parts of nitric, to dissolve the gold. When it is dissolved, dilute it with water and filter it, then make it very dilute by the addition of a large quantity of water, make also an *aqua regia* to dissolve the tin, of one part of nitric acid, and two parts of pure water, to which is to be added one hundred and thirty grains of muriate of soda, or common salt, to each pint of the dilute acid. The tin should be very pure, and must be added to the acid, a small piece at a time. When the first piece is dissolved, add a second, and so on, until the acid is saturated. The solution should be of a yellow color, and the operation carried on very slowly, and in a cool place. When it is finished, filter the liquid and dilute it by the addition of about one hundred times its volume of water.

"Now place the dilute solution of gold in a glass vessel, and add the solution of tin, drop by drop, stirring with a glass rod incessantly, until the liquid takes the color of port wine, suffer it to stand, and large flocks of the purple will fall to the bottom of the vessel, decant the solution, wash and dry the precipitate, which will be of the most splendid purple color."*

Platina Sponge.—The sponge of pla-

* Goddard on the Teeth.

tina is prepared by dissolving the metal in filings in nitro-muriatic acid, that is, a mixture of one part nitric acid, to two parts muriatic acid, to this solution is then added a solution of sal-ammoniac, when a yellow precipitate is formed, which precipitate, on being exposed to a red heat in a crucible, leaves fine platinum in the form of a dark lead colored spongy mass.

Titanium.—The principal ores of titanium are *sphene*, common and foliated, *rutile*, *iserine*, *menachanite*, and *octahedrite*, or *pyramidal* titanium ore.* It is found in the United States, in Lancaster, Bucks and Montgomery counties, Pa.; London Grove, Chester county, Pa.; near Richmond, Va.; also, in the counties of Bedford and Amherst, Va.; near Baltimore, Md.; near West Point and King's Bridge, N. Y.; near New Haven and Litchfield, Conn.; and Windsor, Mass.

Uranium.—This oxyd is used generally as formed in nature. The prepared article, as sold by chemists, contains about two parts of the metal and three of the oxyd, in the form of a yellow powder. It is found in Saxony, Europe; near Baltimore, Md., United States.

Cobalt.—This metal, being difficult to reduce from its ores, is therefore very little known, and has not hitherto been employed in its simple state in any of the arts, but its oxyd has been extensively used on account of the rich blue color which it imparts to glass, and the glaze of porcelain ware. The principal ores of cobalt are those designated by mineralogists under the names of *arsenical cobalt* and *gray cobalt*.† The first contains, in addition to cobalt, some arsenic, iron, nickel, and occasionally silver, &c. The other is a compound of cobalt with iron, arsenic, sulphur and nickel.

As the proper preparation of the oxyd is attended with much trouble, and the quantity used in the manufacture of teeth, being very minute, we deem it unnecessary to give the process here, as it can be obtained of most chemists.

* Ure's Dictionary of the Arts, &c.
† Ure's Dictionary of the Arts, &c.

Recipes.

The following recipes are not copied from any work, but have been proved to be good by some of the best manufacturers of block teeth:

Body, No. 1.—Spar, six oz; silex, three; kaolin, one.

Enamel, No. 1.—Spar; same as used in body.

Body, No. 2.—Wissahicon spar, three oz; Wilmington spar, one; silex, one; Baltimore clay, three dwts.

Enamel, No. 2.—Wissahicon spar, two oz.; Wilmington spar, two; silex, one; porter bottle glass, ten dwts.

Body, No. 3.—Spar, four oz.; silex, two; glass, three dwts.; calcined magnesia, ten grs.

Enamel, No. 3.—No. 3 body, two oz.; spar, twelve; glass, one.

Body, No. 4.—Spar, six oz.; silex, five dwts.; clay, three dwts.

Enamel, No. 4.—Spar, two oz.; flint-glass, sixteen grs.

The following recipes for the body and enamel of teeth, are quoted from Dr. S. Spooner's excellent Essay on the Manufacture of Porcelain Teeth.

Ambler's true recipe.—Body.—Spar, ten parts; South Carolina clay, twelve; chalk, fifteen; silex, five; kaolin, ten.

The South Carolina clay is obtained from Columbia.

Enamel.—Spar, four drachms; S. C. clay, one; porter bottle glass, two scruples; yellow mixture, ten, twenty, to thirty grains; blue smalt, two, five, to seven grains.

Recipes of Mr. Harrison, of New York:

Body.—No. 1, feldspar, thirty parts; kaolin, four; silex, two.

Enamel.—Spar, thirty; silex, three.

Body, No. 2.—Spar thirty; kaolin, six; South Carolina clay, two; silex, two.

Enamel.—Spar, thirty; kaolin, one; S. C. clay, five; glass, six; silex, two. *Body.*—No. 3, spar, thirty; kaolin, five; silex, two; sugar-house clay, one.

Enamel.—As No. 2. For this purpose, says Dr. Spooner, "he uses the following frits, ground with an equal weight of raw enamel:"

Frit.—No. 1, raw enamel, one hundred grs.; titanium, four; terre de Sienna, four; oxyd of gold, one-eighth.

Frit.—No. 2, raw enamel, one hundred grs.; titanium, two; terre de Sienna, four; oxyd of gold, one-eighth.

Frit.—No. 3, raw enamel, one hundred grs.; black oxyd of cobalt, one; oxyd of platina, one-half.

Put the materials in a small crucible, washed with silex, to prevent the frit from adhering to it when fused; fuse in a muffle, and pour the mass into cold water; grind for use. Terre de Sienna gives a muddy brown color. Mr. Harrison considers it an acquisition to our coloring materials, and it may be obtained at any paint-shop or drug store."

Dr. Villers' Vitrescent Composition. Body.—Cornish composition, four drs.; feldspar, four; rock crystal, eight.

Enamel.—Vitrescent composition one dr.; feldspar, three.

The following is his cornish composition: feldspar, one and a half ounces; silex, two; kaolin, one half.

The following recipes, furnished by Mr. Parker, surgeon dentist, of Philadelphia, are taken from Dr. Goddard's Work on the Teeth:

Bodies for Blocks.—No. 1, feldspar, three parts; clay, (Baltimore,) one. No. 2, feldspar, four; kaolin, one. No. 3, feldspar, twenty-four; silex, twelve; clay, six. No. 4, feldspar, twenty-four; silex, twelve; kaolin, six.

Bodies for single teeth.—No. 5, feldspar, eighteen parts; disintegrated feldspar, six; kaolin, two; flint, twelve. No. 6, feldspar, thirty-six; kaolin, three; silex, two. No. 7, feldspar, seventy-two; disintegrated feldspar, forty-eight; silex, twenty-four; kaolin, six. No. 8, feldspar, one hundred; disintegrated feldspar, fifty; silex, twenty-four; kaolin, twelve.

Enamels.—No. 1, disintegrated feldspar, twenty-four parts; flint-glass, twelve; feldspar, six. No. 2, disintegrated feldspar, twenty-four; pulv. blue Canton porcelain, ten; flint-glass, three; borax, four. No. 3, feldspar, thirty-six disintegrated feldspar, eighteen; clay, twelve.

The following is the recipe for frit enamel, as given by Dr. Goddard:

"*First enamel.*—Disintegrated feldspar, twenty-eight parts; kaolin, fourteen; borax, twelve; flint-glass, eight; potash, three; nitre, three.

"After fusing the above in crucibles well luted in a furnace for about three hours, and allowing it to cool, the enamel must be removed from the crucibles by breaking them from it; it is then to be finely pulverized, after which, add half a part of Canton porcelain and half a part of feldspar. Mix and grind the whole finely together."

In quoting the foregoing recipes, the author has selected such as he conceived to be the best, though he has doubtless omitted many very excellent ones. From any of the enamel recipes, gum enamel may be made by adding one grain of peroxyd of gold to every twelve or fifteen parts of enamel, according to the tint which may be required.

In coloring, much will depend upon the degree of fineness to which the materials are reduced, and the amount of heat used in baking and fusing the enamel. To specify the quantity of coloring materials would, therefore, seem superfluous. We will, however, give a few of the proportions, which will compass the whole range from the least quantity to the greatest.

Grades of Color for Body or Enamel.

Yellow tints (titanium) from one to six grs. to the oz. of material. Blue tints, platina, from half gr. to four grs.

to the oz. of material. Bright blue tints, cobalt, from half gr. to six to the oz. of material. Bluish-yellow tints, titanium from half a gr. to four grs., and from half gr. to three grs. platina to the oz. of material.

Preparation of the Materials.

This part of the process requires the greatest care and most assiduous attention, but fortunately the manufacturer of porcelain teeth, may avoid the labor and trouble of it, by procuring his materials ready prepared from a porcelain manufactory, which, we believe, is generally done. In mixing the various ingredients of the body, the proper proportion of each should be carefully weighed out, moistened with water, and ground in a mortar, or on a wedgewood or porphyry slab, until they are reduced to an unctuous paste. It should then be suffered to dry until it attains the consistence of thick dough, when, after being thoroughly beaten with a wooden mallet, or repeatedly and forcibly thrown upon the slab, it may be put away in jars tightly closed, so as to prevent it from drying, to be used as occasion may require.

The enamel is prepared in pretty much the same manner, requiring if possible, more care in its preparation. It should be reducced as nearly to an impalpable powder as possible, carefully excluding every particle of dust, nor should it be handled with any metallic instrument. The coloring matter should be thoroughly incorporated, in order to secure a tint or shade uniformly diffused, and it should be preserved in a state as nearly of the consistence of cream as possible. If it be suffered to dry, it will require to be reground.

Moulds for Teeth.

The moulds employed for this purpose are sometimes made in plaster of paris, and sometimes in metal or porous stone. Metal moulds are the most durable and produce better teeth. For pivot teeth, the moulds invented by Dr. Spooner, are equal to any in use. The manner of preparing them is as follows: "In the first place," says Dr. S., "I prepare the teeth which the moulds are to represent, with the pivot properly fixed, the direction of which should be through the centre of the fang to the cutting edge of the tooth. I next prepare a box two and a half inches long, one and a half wide, and three-fourths of an inch thick. The teeth are next settled just half into the bottom piece, with the external surface up, the cutting edges towards each other, and one half inch asunder. This being done, the box is filled with stucco," (plaster of paris) "which of course, forms half the mould. The bottom piece is next removed, and holes or notches being cut on either side of the teeth, to keep the top piece in its place, and the mould oiled to prevent the plaster from adhering together, another box like the former, less one and a half inches in length, is placed over the teeth, and also filled with plaster, which completes the mould. The top piece is to be pared off even with the base of the teeth. The groove formed in the bottom piece, by the pivot in the tooth, serves as a perfect guide to the wire, in making the pivot hole in the mineral teeth." * *

For plate teeth, Dr. S. makes his moulds as follows: "I first take front natural teeth, of different shapes and sizes, and imbed the external surface in soft wax. These being removed, plaster is run into the beds, and thus with little trouble, I get any number of half teeth, in sets, that I may desire. I next cut a notch in a board, one foot in length, one inch wide, and one-fourth of an inch deep, or more, according to the thickness of the teeth. This notch is cut on the edge of the board. Another board being placed beside this, forms a long narrow box. The stucco teeth are next glued in sets to the notched board, the external surface up, and the base against the bottom, and well dried. The object of the glue is to pre-

vent the melted tin from displacing the teeth. This being done, and the box adjusted, melted tin is cast into it, which at once gives you perfect moulds."

Brass moulds are more substantial and better than tin, but in the one which forms the back of the teeth, small holes should be formed for the reception of the platina rivets. If plaster moulds be employed, they should be saturated with wax before they are used. This may be done by holding them to a fire, until they become hot enough to melt the wax before it is applied.

We should not omit to say that the moulds should be about one-fifth larger than the teeth, as the paste shrinks about this much in baking. For this reason moulds formed from natural teeth, will generally be found too small. The teeth, therefore, used in making moulds, should be artificial, and carved from ivory, or white wax, which will answer.

Moulding Teeth.

The paste for the body, before being put into the moulds, should be well worked, in order to force out any confined air which may be diffused through it, and to consolidate it as much as possible previously to its being used. This done, the moulds should be oiled with a camel's-hair brush and olive oil, and small pieces of the prepared paste pressed into each, and the top or back piece of the mould put on and squeezed up in a vice until it is in contact with the other, and the redundancy of paste in the moulds forced out between the two. In moulding pivot teeth, the pivot wire should be forced in immediately after the two parts of the mould are put together, while the paste is soft. For this purpose, a copper or silver wire may be employed, with the depth of the hole marked on it, which is necessary to secure a uniform length to it. It is important that the pivot hole should be in the centre of the base of the tooth.

In moulding plate teeth, the platina pins or rivets, should be cut with an instrument made for the purpose, and inserted in the holes in the back of the moulds. The extremities which enter the teeth should, however, be first flattened, split or headed, so as to prevent the liability of their being drawn out. It is also important that they should penetrate the tooth as far as possible without becoming visible on the external surface. Having inserted the platina rivets, the teeth may be moulded as before directed. When the teeth are dry, the moulds should be separated, and if they do not readily drop out, they may be made to do so by slightly tapping the mould. It is often necessary to scrape or trim the sides of the teeth a little where the paste has been forced out between the moulds.

Block Teeth.

Although single teeth with artificial gums are preferable to block teeth, it may be well to describe very briefly the manner of making the latter. A plate of the proper form is first to be struck up to serve as a base for the block, and upon this a sufficient quantity of the paste for the body is rudely modeled, and platina rivets inserted opposite to the back of each tooth. After it has dried sufficiently, it must be carved with a knife so as to represent as nearly as possible the shape of the natural teeth. This part of the process must be conducted with great care to prevent crumbling the body. The block is now removed from the metallic base or plate, and placed upon plaster of paris, permitting only the surface which is to rest upon the plate to come in contact with the plaster.

In making blocks for an entire dental circle, the usual method is to make three pieces; one with the incisores and cuspidati, and each of the others, with two bicuspides and two molares. The front piece is carved and baked first, then the two side blocks.

Baking and Enameling.

This part of the process is so fully and accurately described by Dr. Goddard, that the author cannot do better than quote what he says upon the subject. The teeth being moulded or carved in the manner as already described, "must now be placed in a crucible having a little dry kaolin at the bottom, and subjected to a bright red heat, in a charcoal fire. This degree of heat will not vitrify them, but agglutinates and renders them hard enough to receive the enamel. The body in this state is called *biscuit*, and the process, biscuiting porcelain.

"When the biscuit is cool, the enamel must be applied to it, a process which requires much care. Having a quantity of the enamel prepared of the consistence of cream, and in several parcels of different tints of color, it is to be applied to the face of the tooth, previously well cleaned, with a camel's-hair pencil, in a regular uniform coat, which should extend beyond the cutting edge of the tooth, so as to give that part of it its appropriate transparency. If the tooth is of a uniform color, it is only necessary to make it regular and even by means of a needle set into a little handle after it has dried. It most generally happens, however, that the operator wishes to color the tooth of three different tints, and in the case of blocks, to color the artificial gums. To do this, several parcels of enamel of the proper tints must be mixed, * * and each put on to its appropriate place. Great care must be taken not to let the rosy gum enamel get on to the tooth, a well shaped edge being formed around each. The tints on the crown of the tooth must be incorporated carefully, so as to blend or shade off into the other enamel, whilst the gum forms a sharp well defined edge. To do this well, the colored enamels should be placed on the tooth and covered by a thin layer of enamel, mixed with an increased quantity of water so as to render it fluid." He then says,

"It is usual to color the part of the crown next to the neck of the tooth of a yellow, and the tip, of a blue. If the predominate color of the teeth to be imitated is yellow, the thin coat may be of yellow enamel, and on the contrary, if they are blue, this layer may be put on with the blue enamel.

"The body of the tooth should always be colored to harmonize with the enamel, or the effect is not good.

"When perfectly dry, they are ready to go into the furnace," see Furnace for baking Porcelain Teeth. The slides or tiles on which teeth are placed should be "grooved for the platina pins which project from the teeth, and to enable them to be laid in such a way that their cutting edges may be free, and not come in contact with any thing capable of altering their shape. Before putting the teeth on the slide it must be pretty thickly covered with kaolin, mixed up with water, or a layer of powdered silex, to keep the teeth from sticking to it. * * * When pivot teeth are baked. they should be so placed in one of the grooves on the slide, that their edge may project and not become deformed. For this purpose the grooves should be made transverse, which is usually done on a separate slide."

Firing.

"The fire must be kindled with small pieces of charcoal, as it produces but little ashes. Over this must be placed a quantity of anthracite, (of a kind that is hard and produces white ashes,) broken into pieces about the size of a walnut. To prevent chilling the muffle, the anthracite must be added in small quantities until the furnace is full. When this is fully kindled, and the charcoal wholly burned away, the furnace is to be filled up until it is two inches deep over the top of the muffle with the anthracite, and the stopper put into the upper opening and well

luted. The coal should before this last filling be well shook down under the muffle, as the greatest heat is required at that point.

"The teeth having well biscuited, and the enamel put on them, are to be laid as directed on the slide. The muffle being in its place, the slide is to be carefully placed in it, and the door luted into the end of the muffle with fire clay. Care must be taken not to shake or stir the fire after this.

"The test-piece, which consists of a platina wire projecting from the end of a plug made to fit the hole in the cover last mentioned, is now to have one of the same batch attached to the end of it, so as to judge of the progress of the baking, and introduced into its place. The second cover is then placed over it and tightly luted.

"Some prefer a door with three holes, in each of which a test-piece is introduced. The advantage of this is that the operator can withdraw one test, and if it indicates an insufficient baking, he can go on, knowing that the remaining tests have not been exposed to the cooling process whilst being examined. This plan is very advantageous to beginners, but after some practice, the state of the baking can be judged of without cooling the test-piece too much. Some use no test-piece, but open the muffle and withdraw the slide partially when they think that they are sufficiently baked. If they are not finished it is quickly returned and allowed to remain some time longer, when it may be again examined. As soon as the test-piece, on examination, has indicated that the teeth are sufficiently baked, which is known by the enamel being perfectly fused and polished over its whole surface, the plug must be removed from the upper door, and the stopper put into the lower and luted tight. The furnace must then stand until the combustion has ceased and the whole become cool. By this means the teeth will be very gradually brought down from an intense heat to the ordinary temperature, and the particles or molecules of which they are composed, will have had time to arrange themselves in the most compact and best manner. This is usually termed the annealing process, and the teeth are said to be either well or badly annealed. When they are well annealed they will stand sudden changes of temperature without injury, whereas, on the contrary, if badly annealed, they will certainly crack under the blow-pipe, and thus be rendered useless."

In every part of the process of the manufacture of porcelain, the greatest precision and accuracy of procedure is necessary to secure any thing like satisfactory results, and this can only be done by much practice.

Having now presented a brief description of the American method of manufacturing mineral teeth, the author will proceed to give a condensed summary of the manner in which they are fabricated in France. The French porcelain teeth, though not as beautiful as the American, are much stronger and more durable.

As Desirabode is the last French writer who has given a description of the method of manufacturing porcelain teeth, the author will quote so much of what he says upon the subject as may be necessary to its proper comprehension.

French Method of Manufacturing Porcelain Teeth.

Recipes given by Desirabode:

First Shade.—Yellow-gray, wine yellow, yellow-gray-blue, in accordance with the degree of heat in burning.

Paste.—Kaolin, six lbs.; tungstate of iron, two oz.; per-oxyd of manganese three oz.; oxyd of gold, one gr.

Enamel.—Petunse, (feldspar,) three lbs.; oxyd titanium, one oz.

The oxyd of gold should be prepared as follows: dissolve four grains of

gold in a compound of four parts muriatic to one part nitric acid, and evaporate.

Second Shade.—Yellow.

Paste.—Kaolin, six lbs.; earth of vanvres, two lbs.; earth d'ombre, four grs.

Enamel.—Petunse, three lbs.; tungstic oxyd, twelve grs.

Third Shade.—Yellow-gray.

Paste —Same as the preceding.

Enamel.—Petunse, three lbs.; tungstic oxyd, one oz.

Fourth Shade.—Yellow-blue.

Paste.—Kaolin, six lbs.; oxyd of cobalt, four grs.

Enamel.—Petunse, three lbs.; oxyd of manganese, twelve grs.

Fifth Shade.—Pure Gray.

Paste.—Kaolin, six lbs.; tungstate of iron, two oz.; oxyd of manganese, two oz.; oxyd of gold, one gr.

Enamel.—Petunse, three lbs.; oxyd of platinum, thirty-six grs.

Preparation of the Paste.

Whatever may be used for the composition of the base, we take a certain quantity of the paste mentioned above, mixed, sometimes, with a small quantity of covering or enamel, to give it transparency and to shade it more easily, to which we add such oxyds as are judged necessary, in the proportion of thirty grains to the pound; these are mixed with care, keeping the mass constantly wetted upon a porcelain table, with a muller of the same substance; for this purpose glass should never be used. This is now dried as much as possible, and made into oblong squares, about a line and a half in thickness, three or four in width, and five or six in length; these various dimensions will always be a little reduced by contraction.

At this stage of the process, horizontal or vertical, and sometimes in the form of a cross, are to be made on the back face of these little squares, which are still soft, and rounded on their lateral edges; instead of making the paste into these squares it is better, as we shall hereafter describe, to mould it in forms or matrices of copper, made as nearly as possible in the form of the teeth. The groove is destined to receive the little curved platina clamps which are to form one or more projections above the plane of the teeth, to which are afterwards to be soldered, the gold or platina shaft, which serves to mount the tooth.

As the strength of the artificial set depends upon the solidity of the clamps, their implantation is a part of the process which is quite important, and their preparation requires care. They are made in several ways; sometimes a platina wire of ordinary thickness is taken, passed through a draw-plate, flattened and cut into proper lengths; sometimes the wire is simply passed through a flattener, and when it is divided, the extremity which is to be fixed in the paste, is cut off with a pair of cutting forceps. Again, this extremity is divided, and the two parts turned in contrary directions."

But to avoid the necessity of soldering backings on the teeth, M. Desirabode says, "he fixes in the paste, before burning, not simply clamps, but a piece of metal, forming at once the clamps and the tenon or shaft by which the tooth is to be fixed to the plate. This fixture is composed of a central shaft, from each side of which go off, in the form of wings, little clamps which pass into the paste and disappear in it. Fastened in this manner, there is no danger of the fixture becoming defective by the injury of one of these clamps, all being attached to and making one with the principal piece." * * *

Mineral Teeth with a Talon (Pivot.)

The implantation of the clamps in the posterior faces of mineral teeth, is intended for those, only, which have their posterior or internal face flat-

tened, and which form rather simple *facades* of teeth, than entire teeth; but mineral teeth are often made to resemble, in all points, at least of the crown, the natural teeth; that is, they are furnished behind or interiorly with a talon or heel. This is formed in three ways; either by making it continuous with the crown before burning, adding with it a substance of the same nature after it is burnt; or, finally, making it with a metallic substance soldered to the clamp of those teeth of which we have just spoken, as being most commonly employed.

"The first method is simply to construct a tooth precisely like a natural tooth, (an incisor or canine,) in form, and, in the thickness of the projection backward, upon the middle of the upper surface, to make a vertical hole; in this hole are fixed the clamps, destined to be soldered to the shaft or pivot which is to fill this hole, or to a little metallic tube to receive the shaft. The greater part of the transparent or English teeth are made in this way. The force of adaptation which holds these tubes united to the paste, after burning, is another proof that the objection which has been urged against our clamps is not well founded, for this tube, in consequence of its form, is more liable to dilate by the action of the fire, and crack the substance in which it is placed, than a little simple piece of metal; yet, from this cause, the teeth are never cracked.

By the second method the pivot is first soldered to the clamps of the common plate tooth; after this is done, the projection, which gives it the form of a perfect tooth is added: the substance of which this is made, is composed according to the formula of M. Delabarre, as follows: porcelain paste, seven parts; calcined gypsum, one part; white sand, one-twentieth part of the whole mass; such oxyd as may be desired, four ounces six grains, to the two pounds. As the addition of gypsum greatly augments the fusibility of this paste, it is entirely unnecessary to resort to the furnace of the porcelain manufacturer, a simple air-furnace is generally sufficient. We regard this method as very defective, first, because the paste added is united with difficulty to the first, from which it is separated by a piece of platinum, then, not being as well burnt as the tooth itself, it will be less able to support the shocks to which it is subject. It is, therefore, a much more simple and certain process, when these teeth are required, to make them at once of the desired shape, or to make the projection of platinum, and solder the pivot to it."

Molar Mineral Teeth.

"All that we have said of the proper form to be given to mineral teeth, and the various methods of attaching them, has relation to the canine and incisor teeth only; but molar teeth are also made, the form of which vary according as they are to be mounted in front of the exterior border of the plate, or base, destined to receive them, or immediately upon this plate. In the first case the artificial tooth is formed precisely like the natural one, except the lingual side, which is left flattened. This side is furnished with clamps exactly similar to those intended to replace the incisores. In the second case they are made in all points like the natural teeth. The question now arises, how are these teeth to be attached to the plate? In several ways:

"1. In each of the sides of the tooth, corresponding to the dental interstices, depression is made, into which the clamps are fixed. 2. A vertical hole is made which passes nearly up to the surface of the crown; into this passes a pivot fixed to the plate, and through the upper part of this pivot a pin is introduced horizontally through a little hole previously made for this purpose. 3. The tooth is pierced with a horizontal hole, near the top, through which a

platina wire is passed, bent down to the plate on each side and soldered. 4. A vertical hole is made entirely through, larger toward the crown than at the base; a pivot is fixed to the plate and passed through the hole, the top of the pivot is capped, and the whole soldered together, thus fixing the tooth. This last method is recommended by M. Lefoulon, and is certainly the most defective of all, because it has the great objection of leaving upon the grinding surface a large and very visible spot. It will be replied to this objection that the same is the case when a decayed tooth is plugged on the grinding surface; but in this case, no choice of means is left with the artificial teeth.

Sometimes a piece comprising two or three molar teeth is made. In such case a hole is pierced through the middle one, destined to receive a pivot soldered to the plate; in the two others a groove is made into which pivots pass to keep the whole piece in place, unless it is preferred to make the grooves on the lingual or internal side and solder it, like the incisor teeth.

Preparation and Manner of Using the Enamel.

"To make enamel, as much of the mass already described, as is desired, is taken, and to it is added, such metallic oxyds, or such a combination of them, as is necessary to obtain the desired shade; in quantities of about an ounce at a time, grinding the whole, perfectly, upon a porcelain table, in order to distribute equally the coloring matter. In order to obtain a color more homogeneous to the enamel, we may use, with advantage, a paste made of an enamel already burned, and broken up in a mortar. This may be regarded as a color already well formed.

"The enamel paste should be ground with more care than that of the base; the more perfectly this is done, the more free will be the surface of the tooth from spots, and the more uniform will it appear. It may be preserved in water, if the precaution be taken to remove it from time to time, and it used at about the consistence of a thick paste; and in order that it should attach itself to the earthy base, it should be diluted with water, in which some gum arabic has been dissolved; finally, it is applied in a thin layer, if the base is colored, and in a thicker one if the contrary is the case.

"This application of the enamel to the paste is made in two ways: either by first putting the enamel in the mould, and then the paste, making the groove and fixing the clamps after this is done; or, on the contrary, the tooth is first moulded, the groove made, the clamps fixed, and then the enamel applied. The first plan which has been longest in use is defective in this, that the paste, placed upon the soft enamel, buries itself always more or less by its own weight, and by the pressure necessarily occasioned by making the groove and fixing the clamps; the inevitable result is, that the layer of enamel is very unequally spread over the surface of the tooth. This may be proved by grinding half away two teeth enameled by these two plans, in one the paste will be seen to describe a regular curved line, whilst in the other it will be irregular. The second plan, although less varied, easy, and, perhaps, a little more certain in the fire, is, however, always preferable; it is the one we always adopt, and which is recommended by those who are most versed in the manufacture of mineral teeth."

We omit the description of the manner of baking the teeth, as that is so similar to the one which has already been given, that it would be but a mere repetition of what has already been said upon the subject. We have also left out many other unimportant details, as the author did not wish to extend, unnecessarily, the length of this article.

PORCELLA'NEOUS. Pertaining to, or resembling, porcelain.

PORCEL'LIO. The name of a genus of apterous insects.

PORCUPINE DISEASE. The fish-skin disease.

POR'CUS. A hog.

PORE. *Porus; interstice.* In *Anatomy*, the orifices of the absorbing and exhaling vessels.

PORI BILIARII. The ducts which receive the bile from the penicilli of the liver.

POROCE'LE. A scirrhous tumor of the testicle or scrotum.

POROM'PHALON. From πωρος, hard, and ομφαλος, the navel. A hard tumor of the navel.

POROS'ITY. From *porus*, a passage. The state of having pores or interspaces, a quality of bodies by which they transmit fluids through their pores.

POROT'IC. *Poriticus;* from πωρος, callus. A medicine supposed to be capable of assisting the formation of callus.

PORPHYRA HÆMORRHAGICA. Land scurvy.

POR'PHYRY. A species of hard granite stone or rock.

PORRA'CEOUS. From *porrum*, a leek. A term applied to the excretions of the body when they exhibit a green color.

PORRI'GO. Scurf on the head; Scald head. An eruption of the pustules, called *favi* and *achores*, without fever.

Porrigo Decal'vans. A disease characterized by patches of baldness of a more or less circular form, without change of color in the surrounding hair.

Porrigo Favo'sa. An eruption of large, soft, flat, straw-colored pustules, called *favi*, with an irregular edge, surrounded by slight inflammation, and occurring on all parts of the body, though sometimes confined to the scalp, face, trunk or extremities.

Porrigo Fur'furans. An eruption of small achores, the fluid of which soon dries up and separates in numerous scale-like exfoliations, reappearing and disappearing at irregular periods, and with more or less itching and soreness.

Porrigo Larvalis. *Crusta lactea.* A disease almost exclusively confined to infancy, and characterized by the appearance of an eruption of numerous small achores, on the forehead and cheeks, which after awhile break, discharging a viscid fluid, and become incrusted in thin yellowish, or grayish scabs. These spread until the face sometimes becomes, as it were, enveloped in a scab.

Porrigo Lupino'sa. An eruption of minute pustules in small patches, generally commencing on the scalp, which terminates in scabs resembling the seeds of the lupin.

Porrigo Scutula'ta. Ringworm of the scalp. Scald-head. An eruption of an irregular circular form, upon the scalp, forehead and neck.

POR'RUM. *Porrus.* The leek.

PORTA. A door or gate. The part of the liver where the vessels enter. Also, the vulva.

PORTÆ VENA. Vena portæ.

PORTAL. From *porta*, a gate. Relating to the porta of the liver.

Portal Blood. The blood of the portal veins.

Portal Circulation. The circulation of the venous blood from the chylopoietic viscera into the liver.

PORTE-AIGUILLE. *Acutenaculum.* A needle-holder.

PORTER. A malt-liquor of a dark-brown color, and bitterish taste.

PORTER, D. H. Author of a Paper on Artificial Teeth on the Principle of Atmospheric Pressure; published in the New York Dental Recorder, vol. second.

PORTIO. A term signifying, a portion or branch, and applied to two nerves.

Portio Dura. The facial nerve, a branch of the seventh pair, and so call-

ed from its firm consistence. See Facial Nerve.

Portio Mollis. The auditory nerve.

PORTONA'RIUM. The pyloric orifice of the stomach.

PORTULA'CA. *Portulaca oleracea;* purslane.

PORUS. A pore or duct.

POSCA. A mixture of vinegar and water.

POSE. Catarrh.

POSERVITZ. Semiology of idiopathic and symptomatic apthæ, by. Viteb. 1790.

POSOL'OGY. *Posologia;* from ποσος, quantity, and λογος, a discourse. That part of therapeutics which treats of the indications of the doses in which different medicines should be prescribed.

POSSET. *Possetum.* Milk curdled with wine, treacle, or any acid.

POSTE'RIOR ANNULA'RIS. An external interosseal muscle of the hand.

Posterior Auris. The retrahens auris.

Posterior In'dicis Manus. An internal interosseal muscle of the hand.

Posterior Indicis Pedis. An external interosseal muscle of the foot.

Posterior Medii Dig'iti Manus. An external interosseal muscle of the hand.

Posterior Medii Dig'iti Pedis. An external interosseal muscle of the foot.

Posterior Tertii Digiti. The adductor tertii digitii muscle.

POSTHE. The prepuce.

POSTHIOPLAS'TIC. *Posthioplasticus;* from ποσθιον, the prepuce, and πλασσω, I form. An operation for the restoration of the prepuce.

POSTHI'TIS. Inflammation of the prepuce.

POSTHON'CUS. A swelling of the prepuce.

POSTI'CUS. Situated behind.

POST-MORTEM. After death; applied to an examination of the body after death, for the detection of the changes of structure produced by disease.

POTABLE. *Potabilis.* Drinkable. Fit to be drank.

POTASH. Vegetable alkali; potassa; kali.

Potash of Commerce. *Potasæs carbonas impurus.* Impure carbonate of potassa; pearlash.

POTASSA. Potash. Potassa caustica.

Potassa Cum Calce. Potassa with lime, mechanically mixed.

Potassa Caustica. Caustic potassa.

Potassa Impura. Potash of commerce.

POTASSÆ AQUA EFFERVESCENS. Effervescing solution of potassa.

Potassæ Acetas. Acetate of potassa.

Potassæ Bicarbonas. Bicarbonate of potassa.

Potassæ Bisulphas. Bisulphate of potassa.

Potassæ Bitartras. Bitartrate of potassa.

Potassæ Carbonas. Carbonate of potassa.

Potassæ Carbonas Impurus. Impure carbonate of potassa. Potash of commerce.

Potassæ Carbonas Purus. Pure carbonate of potassa. Carbonate of potassa from crystals of tartar. Salt of tartar.

Potassæ Carbonatis Aqua. Solution of carbonate of potassa.

Potassæ Causticæ Aqua. Solution of potassa.

Potassæ Chloras. Chlorate of potassa.

Potassæ et Sodæ Tartras. Tartrate of potassa and soda. Tartarized soda. Rochelle salt.

Potassæ Hydras. Hydrate of potassa. Caustic potash.

Potassæ Hydriodas. Iodide of potassium. Hydriodate of potassa.

Potassæ Nitras. Nitrate of potassa.

Potassæ Nitras Purificatum. Purified nitrate of potassa.

Potassæ Sulphas. Sulphate of potassa.

Potassæ Sulphas Cum Sulphure. Sulphate of potassa with sulphur.

Potassæ Sulphuretum. Sulphuret of potassium. Sulphuret of potassa.

Potassæ Supertartras. Supertartrate of potassa.

Potassæ Tartras. Tartrate of potassa.

POTASSII BROMIDUM. Bromide of potassium.

Potassii Chloridum. Chloride of potassium. Muriate of potassa.

Potassii Cyanuretum. Cyanuret of potassium. Hydrocyanate of potassa.

Potassii Ferrocyanuretum. Ferrocyanuret of potassium.

Potassii Iodidum. Iodide of potassium. Hydriodate of potassa.

Potassii Iodidi Liquor Compositus. Compound solution of iodide of potassium.

Potassii Sulphuret'um. Sulphuret of potassium. Liver of sulphur.

POTAS'SIUM. The metallic base of potassa.

POTATO. Solanum tuberosum.

Potato Fly. Lytta vittata.

Potato, Spanish. Convolvulus batatas.

Potato, Wild. Convolvulus panduratus.

POTEN'TIAL. *Potentialis;* from *potens,* able. Opposed to actual. See Cautery.

POTENTIL'LA ANSERI'NA.—Silver-weed; wild tansey.

Potentilla Reptans. The common cinquefoil or five-leaved grass.

POTER'IUM. The name of a genus of plants.

Poterium Sanguisorba. Burnet saxifrage.

POTIO CALCIS CARBONATIS. Chalk mixture.

PO'TION. *Potio;* from *poto,* I drink. A liquid compound; the same as mixture.

POTT'S DISEASE. Caries of the bodies of the vertebræ, and angular curvature of the spine forward.

POTUS. Drink.

POUCH. A small bag; in *Pathology,* a morbid dilation of any part of a canal.

POULTICE. A cataplasm.

POUNCE. Pulverized gum sandarach.

POUND. A weight consisting of twelve ounces of troy, and sixteen avoirdupois. See Weights and Measures.

POUPART'S LIGAMENT. Ligamentum Poupartii.

POWDER. See Pulvis.

Powder, Antimonial. Pulvis antimonii compositus.

Powder of Burnt Hartshorn with Opium. Pulvis cornu usti cum opio.

Powder, Compound, of Chalk.—Pulvis cretæ compositus.

Powder, Compound, of Chalk, with Opium. Pulvis cretæ compositus cum opio.

Powder for the Teeth, Baume's. Le Maire gives the following as M. Baume's formula for a powder for the teeth: take prepared pumice-stone, prepared red earth, prepared red coral, each, ʒ i; dragon's-blood, cream of tartar, each ʒ ss; cinnamon, ʒ ij; cloves, ℈ i. Mix and reduce to a fine powder.

Powder for the Teeth, Bourdet's. Take ʒ vi of pumice-stone, well calcined and reduced to powder. This powder is passed on the porphyry stone, moistened from time to time with rose water, or that of myrtle, it is dried, reduced to an impalpable powder, and the following ingredients added: plate lac, dragon's-blood, dried bone, bole armenic, of each ʒ iii; cinnamon, cloves, Florentine iris, rock alum, calcined, of each ʒ i. The whole to be mixed and reduced to a fine powder.

Powder of Faynard. A styptic powder, supposed to consist of the charcoal of beech wood.

POX. Syphilis.

Pox, Chicken. Varicella.

Pox, Small. Variola.

PRACTICE OF PHYSIC. The treatment of disease. See Therapeutics.

PRACTITIONER, GENERAL.—One who exercises the duties of the several branches of the curative art. Surgeon-apothecary.

PRÆCOR'DIA. From *præ*, before, and *cor*, the heart. The forepart of the thoracic region.

PRAS'IUM. Common hoarhound.

PRAS'UM. The leek.

PRAX'IS. From πρασσω, to perform. Action, the practice of any thing, as of medicine, or any of its branches.

PRECIPITATE, RED. Hydrargyri nitrico-oxydum.

PRECIPITATE, WHITE. Hydrargyrum precipitatum album. Ammoniated mercury.

PRECIPITA'TION. *Præcipitatio;* from *præcipito*, to cast down. The act by which any body separates from a liquid, in which it is held in solution, and falls to the bottom of the vessel.

PRECOC'ITY. Premature development of any faculty.

PRECUR'SORY. *Præcursorius;*—from *præ*, before, and *curro*, to run, that which precedes.

PRECURSORY SYMPTOMS. The symptoms which indicate the approach of disease.

PREDISPOSI'TION. *Prædispositio;* from *præ*, before, and *disponere*, to dispose. That constitution or condition of body which disposes it to take on a certain form or kind of diseased action.

PREG'NANCY. Utero-gestatio.—The state of a female from the moment of fecundation to parturition.

PREHEN'SILE. Adapted to seize or grasp, as the hand or teeth.

PREHEN'SIO. Catalepsy; epilepsy.

PREHEN'SION. From *prehendere*, to lay hold of. The act of seizing, or taking hold.

PRELUM'BAR. *Prælumbaris;*—from *præ*, before, and *lumbi*, the loins. Before the loins.

PREMON'ITORY. Precursory.

PRENTICE, NATHANIEL P. S. Dr. Nathaniel P. S. Prentice, late surgeon dentist of New York, was born in, or near Portland, Me, and studied medicine and graduated at the Ohio Medical College in Cincinnati. He studied dental surgery in Boston, with Dr. Flagg, and went to New York about the year 1826; soon after he became associated in practice with Dr. Eleazar Parmly, which connection was continued about two years, when, in consequence of being affected with phthisis pulmonalis, he was compelled to relinquish the duties of his profession, and by the advice of his friends, removed to Boston, where, at about the age of thirty, he died.

The above facts, in relation to Dr. Prentice were derived from Dr. Parmly, who, in speaking of Dr. P., says, he possessed a degree of intellectual culture and professional cleverness, rarely met with in any profession. By his death, the profession were deprived of one of the most exemplary and pure minded men, as well as one of the brightest ornaments that has ever been enrolled among its members.

PREPARA'TION. *Præparatio.*—That which is prepared by some process, as a pharmaceutical, or anatomical preparation.

PREPUCE. *Præputium.* The integuments that cover the glans penis.

PRESBYO'PIA. From πρεσβυς, old, and ωψ, the eye. Long sightedness. A defect of vision, common in old persons, by which objects near by are seen confusedly whilst at remoter distances, they are seen distinctly.

PRESBYTIA. Presbyopia.

PRESCRIP'TION. *Præscriptio;*—from *præ*, before, and *scribere*, to write. The formula of a physician for the composition of medicine. A compound prescription is divided into, 1. The *basis*, or active ingredient; 2. The *adjuvans*, which assist the operation of the former; 3. The *corrigens*, which is to correct any thing injurious in the operation of the active ingredient, and, 4. The *constituens*, or mixture which is

intended to give to the whole a convenient and agreeable form. But, ordinarily, prescriptions are more simple.

The following is the usual mode of making a prescription: ℞.—Potassæ nitratis, ʒ ij; mellis rosæ f. ʒ iv; infusi rosæ f. ℥ vss. Misce.

PRESPI'NAL. *Præspinalis;* from *præ*, before, and *spina*, the spine. The anterior surface of the spine.

PRETIB'IAL. *Prætibialis;* from *præ*, before, and *tibia*, the tibia. Before or in front of the tibia.

PRIAPEIA. Green tobacco.

PRIAPIS'CUS. From πριαπος, the penis. A tent or bougie, shaped like the penis.

PRIA'PISM. *Priapismus.* Constant, and painful erection of the penis, occasioned by morbific causes.

PRIA'PUS. The penis.

PRICKLY ASH. Aralia spinosa and xanthoxylum fraxineum; toothache tree.

Prickly Heat. Lichen tropicus.

PRIDE OF CHINA. Pride of India. Melia azedarach.

PRIMÆ VIÆ. The first passages. The stomach and intestinal canal.

PRI'MARY. *Primarius.* First in order of time. A term applied, in *Pathology*, to the first symptoms, causes, &c. of disease.

Primary Teeth. The teeth of first dentition.

PRIMINE. The outermost covering of the ovule of plants.

PRIMIP'ARA. From *primus*, first, and *parere*, to bring forth. A female who brings forth for the first time.

PRIMROSE, EVENING. Œnothera biennis.

PRIM'ULA. The name of a genus of plants.

Primula Verus. The cowslip.

Primula Vulgaris. The primrose.

PRINOS VERTICILLA'TUS.—Black alder.

PRION. A saw.

PRIONO'DES. From πριων, a saw, and ειδος, shape. Serrated. A term applied, in *Anatomy*, to the sutures of the cranium.

PRI'OR. The first.

Prior Annula'ris. An internal interosseal muscle of the hand.

Prior Indicis. An internal interosseal muscle of the hand.

Prior Medii. An external interosseal muscle of the hand.

PRISIS. Stridor dentium.

PRISM. A solid contained by planes of which the two that are opposite are equal, similar, and parallel, and the others parallelograms.

PRISMAT'IC. Prism-shaped; applied, also, to the colors resulting from the action of a transparent prism or the solar beam.

PRISMOS. Stridor dentium.

PRO-. Before; a prefix signifying in front, or in advance of.

Pro re Nata. A term employed, in *Prescriptions*, signifying, occasionally, as circumstances may demand.

PROBANG. A small rod of whalebone, with a piece of sponge or ivory at one of its extremities, used to push extraneous bodies, which have lodged in the œsophagus, down into the stomach.

PROBE. From *probo*, to try. A long slender instrument employed by surgeons to explore and ascertain the depth of wounds.

PROBO'SCIS. A snout or trunk.

PROCAR'DIUM. The pit of the stomach.

PROC'ESS. *Processus;* from *procedo*, to go before. Applied, in *Anatomy*, to parts which are prolonged beyond others with which they are connected; in *Chemistry*, the series of operations necessary for the obtainment of any given result.

PROCES'SUS. A process.

Processus Anconeus. The olecranon.

Processus Annularis. The pons varolii.

Processus Caudatus. The lobulus caudatus of the liver.

PROCESSUS CILIARES. The ciliary processes.

PROCESSUS CUNEIFORMIS OSSIS OCCIPITIS. The basilary process.

PROCESSUS FALCIFORMIS CEREBELLI. The falx cerebelli.

PROCESSUS FALCIFORMIS DURÆ MATRIS. The falx cerebri.

PROCESSUS MAMILLARES. The bulbs of the olfactory nerves.

PROCESSUS UVIFER. The uvula.

PROCIDEN'TIA. From *procido*, to fall down. A prolapsus, or falling down of any part.

PROCON'DYLUS. From προ, before, and κονδυλος, a knot. The first joint of the finger next the metacarpus.

PROCTAL'GIA. From πρωκτος, the anus, and αλγος, pain. Pain in the anus.

PROCTATRE'SIA. From πρωκτος, the anus, and ατρησια, imperforation. Imperforate anus.

PROC'TICA. From πρωκτος, the anus. Diseases of the anus without primary inflammation. In Good's *Nosology*, a genus in the class *cœliaca*, order *enterica*.

PROCTI'TIS. Inflammation of the anus.

PROCTOCE'LE. From πρωκτος, the anus, and κηλη, hernia. Prolapsus ani.

PROCTORRHA'GIA. From πρωκτος, the anus, and ρηγνυμι, to burst out. Hemorrhoidal flux.

PROCTORRHŒ'A. From πρωκτος, the anus, and ρεω, I flow. The discharge of mucus from the anus.

PROCTOS. The anus.

PROCTOSIS. Proctocele.

PROCUM'BENT. *Procumbens.*—Lying down on the face. In *Botany*, trailing, unable to support itself.

PRO'DUCT. From *produco*, I produce. The tangible result of a chemical or pharmaceutical operation.

PRODUCTIO. An apophysis.

PRODUC'TION. A prolongation; a process; that which is produced.

PROELIUM. A press; a tourniquet.

PRŒCO'TIA. Premature development of the sexual organs.

PROFLU'VIA. A term applied to all morbid discharges or fluxes.

PROFLU'VIUM. From *profluo*, I run down. A discharge or flux.

PROFUN'DUS. Deep-seated; also, the flexor profundus perforans.

PROFU'SIO. A flow of fluids, as that of blood, without fever.

PROGLOS'SIS. From προ, before, and γλωσσα, the tongue. The tip of the tongue.

PROGNO'SIS. From προ, before, and γινωσκω, I know. The art of foretelling the future progress and termination of a disease from the symptoms.

PROGNOS'TIC. The prediction of the termination of a disease.

PROLA'BIUM. The extreme projecting part of the lips.

PROLAP'SUS. From *prolabar*, I slip down. The falling down of a part of a viscus from its natural position.

PROLAPSUS ANI. The inversion and falling down of the lower part of the rectum.

PROLAPSUS IRIDIS. Protrusion of the iris through a wound in the cornea.

PROLAPSUS UTERI. A falling down of the uterus from relaxation.

PROLAPSUS UVULÆ. Relaxtion and elongation of the uvula. Staphylœdema.

PROLAPSUS VAGI'NÆ. Protrusion of the upper part of the vagina into the lower.

PRO'LEGS. In *Entomology*, the wart-like tubercles which assist the various larvæ in walking and other motions. In caterpillars, they are generally found on the hinder segment.

PROLEP'TICUS. Anticipating.

PROLI'CIDE. From *proles*, offspring, and *cædere*, to kill. The destruction of one's offspring.

PROLIF'IC. *Prolificus;* from *proles*, offspring, and *facio*, I make. A term applied to man and animals, which possess the faculty of procreating their species.

PROLIG'EROUS. From *proles*, offspring, and *gero*, I carry. That which is connected with bearing the offspring.

PROM'INENT. *Prominens*. Projecting.

PROMINEN'TIA. A protuberance.

PROM'ONTORY. *Promontorium*. A small projection of the inner ear.

PRONA'TION. *Pronatio;* from *pronus*, inclined forwards. The turning of the palm of the hand downwards.

PRONA'TOR. That which produces pronation; a name applied to two muscles of the forearm and hand.

Pronator Radii Quadratus. A small fleshy muscle situated at the lower and inner part of the forearm.

Pronator Radii Teres. A muscle situated at the upper and anterior part of the forearm.

PRONERVA'TIO. An aponeurosis or tendon.

PROPHYLAC'TIC. *Prophylacticus*. A preservative; a preventive.

PROPHYLAX'IS. Preventive treatment.

PROPTO'SIS. A prolapsus or falling down of any part.

PRO'RA. The occiput.

PROSEC'TOR. From *proseco*, to cut. One who dissects a subject for anatomical demonstration.

PROSOPAL'GIA. Neuralgia faciei.

PRO'SOPON. The face.

PROS'PHYSIS. Adhesion; applied, in a limited sense, to adhesion of the eyelids.

PROS'TASIS. Abundance of excrementitious humors.

PROS'TATE. *Prostatus;* from προ, before, and ιστημι, I stand. Standing before; jutting out.

Prostate Gland. A glandular, cordiform body, situated before the neck of the bladder and behind the bulb of the urethra.

PROSTAT'IC. Pertaining to the prostate gland.

Prostatic Concretions. Calculi of the prostate gland.

Prostatic Urethra. That portion of the urethra occupied by the prostate gland.

PROSTATICUS SUPERIOR. The compressor prostatæ.

PROSTATI'TIS. Inflammation of the prostate gland.

PROSTATON'CUS. From προστατα, the prostate, and ογκος, a tumor. Swelling of the prostate gland.

PROS'THESIS. In *Surgery*, the replacement of a last organ or part with an artificial substitute. In *Medicine*, an over-lapping, as of one febrile paroxysm upon another.

Prosthesis, Dental. The replacement of the loss of one or more teeth with an artificial substitute. See Artificial Teeth.

PROSTRA'TION. *Prostratio*. Depression of strength, and loss of voluntary power over the muscles.

PRO'TEINE. From πρωτευω, I take the first rank. A product of the decomposition of albumen, by potassa. It is the basis of animal and vegetable albumen, fibrin, casein, and gluten.

PRO'TEINOUS. *Proteinaceous;* of, or belonging to, proteine.

PROTOPATH'IC. *Protopathicus;* from πρωτος, first, and παθος, a disease. Idiopathic; primary disease.

PROTHO'RAX. From προ, before, and θωραξ, a shield. In *Entomology*, the first segment of the thorax in insects.

PROTOXYD. From πρωτος, first, and *oxyd*. The first or lowest degree of oxydation of a body capable of combining with oxygen in several different proportions.

PROTRAC'TOR. An instrument for the removal of extraneous bodies from wounds.

PROTUBERAN'TIA. A protuberance; an eminence, also, an apophysis.

Protuberantia Annularis. The pons varolii.

Protuberantia Cylindrica. The cornu ammonis.

PROX'IMAL. Proximate.

PROX'IMATE. *Proximus.* Nearest; next in order.

Proximate Cause. That which immediately precedes and produces the effect.

Proximate Principle. The distinct compounds which exist ready formed in animals and vegetables, as albumen, fat, &c.

PRU'NA. An anthrax.

PRUNE. *Prunum.* The prunus domestica.

PRUNEL'LA. The name of a genus of plants.

Prunella Vulgaris. Self-heal; heal-all.

PRU'NUM. A plumb; a prune.

Prunum Gallicum. Prunus domestica.

Prunum Sylvestre. Prunus spinosa.

PRU'NUS. The name of a genus of plants.

Prunus Armeniaca. The apricot.

Prunus Avium. The black cherry tree.

Prunus Cer'asus. The red cherry tree.

Prunus Domes'tica. The plumb or damson tree.

Prunus Invi'tia. The bullace plumb tree.

Prunus Lauro-Cer'asus. The poison laurel, cherry laurel, bay laurel, and Alexandrian laurel.

Prunus Padus. The wild cluster, or bird cherry tree.

Prunus Spino'sa. The sloe tree.

Prunus Virginia'na. The wild cherry tree.

PRURI'GO. *Pruritus;* from *prurio,* I itch. A term employed by Willan and Bateman to designate a genus of cutaneous diseases, characterized by a troublesome itching, and accompanied by an eruption of papulæ of nearly the same color as the adjoining cuticle, comprehending three species. 1. *Prurigo mitis,* which effects young persons, and is characterized by soft and smooth elevations of the cuticle, but without redness or much inflammation, except from violent friction, and attended with an itching sensation. When the papulæ are broken or their tops rubbed off, a clear fluid oozes out and black scabs are formed. When neglected it terminates in the itch. 2. *Prurigo formicans,* usually affects adults, and the papulæ are sometimes larger and sometimes not so distinct as the first species, but attended with incessant and intolerable itching. The eruption is diffused over the whole body, except the face, feet and palms of the hands, and sometimes terminates in a non-contagious pustular eruption. 3. *Prurigo senilis,* a disease somewhat similar to the second species of prurigo, though generally of a more permanent and aggravated form.

PRURI'TUS. Itching; prurigo.

PRUSSIAN BLUE. Ferri ferrosesquicyanidum. Ferro-prussiate of iron.

PRUS'SIATE. A cyanide or ferrocyanide.

Prus'siate of Iron. Prussian blue.

PRUS'SIC ACID. Hydrocyanic acid.

PRUS'SINE. Cyanogen.

PSALTERIUM. Lyra.

PSELLIS'MUS. From ψελλιζω, I stutter. Imperfect articulation of speech. In Good's *Nosology,* a genus in the class *pneumatica,* order *phonica.*

PSEUDO. False.

PSEUDÆSTHE'SIA. From ψευδης, false, and αισθανομαι, I feel. Depraved feeling.

PSEUDARTHRO'SIS. A false joint.

PSEUDOBLEP'SIS. From ψευδης, false, and βλεψις, sight. Perverted vision.

PSEUDO-CROUP. Laryngismus stridulus.

Pseudo-Membrane. A false membrane, consisting of an organized layer of effused lymph.

Pseudo-Phthisis. Emaciation result-

ing from other causes than tubercles of the lungs.

Pseudo-Pleuritis. Pleurodynia.

Pseudo-Pyre'thrum. Achillæa ptarmica.

PSEUDOREX'IA. False or perverted appetite.

PSEUDY'MEN. False membrane.

PSID'IUM. The name of a genus of plants.

Psidium Pomif'erum. The apple guava.

PSILO'THRA. Depilatory applications.

PSOÆ. The loins; also, the name of two pair of muscles.

PSOAS. From ψοαι, the loins. Belonging to the loins.

Psoas Abscess. Lumbar abscess.

Psoas Magnus. A long, thick muscle, situated on the anterior and lateral parts of the lumbar vertebræ.

Psoas Parvus. A muscle situated anterior to the psoas magnus.

PSOI'TIS. Inflammation of the psoæ muscles.

PSOLON'CUS. Swelling of the penis, or glans penis.

PSORA. Scabies; itch.

Psora Leprosa. Psoriasis.

PSORA'LEA. The name of a genus of plants.

Psoralea Glandulo'sa. A Chilian shrub.

Psoralea Pentaphylla. The Mexican contrayerva.

PSORIASIS. From ψωρα, the itch. A cutaneous eruption, consisting of patches of rough amophous scales, sometimes continuous, and sometimes in separate patches, varying in size; of an irregular figure, and attended with chaps in the skin. It has, according to Dr. Willan, the following varieties: 1. *Psoriasis guttata*, which consists of irregular patches of laminated scales with little or no inflammation. 2. *Psoriasis diffusa*, consists of large irregularly circumscribed, reddish patches, upon the skin, which is rough, fissured, with scales interspersed, and wrinkled. It appears most frequently, on the cheeks temples, upper eyelids, corners of the eyes, neck, chin, external ear, the back of the forearm, and hand and fingers, sometimes causing the nails to crack and exfoliate, and the fleshy part of the lower extremities. 3. *Psoriasis gyrata*, is characterized by slight cutaneous scales, distributed in narrow patches, of a circular, or semicular form, with vermiform appendages. 4. *Psoriasis palmaria*, is an obstinate species of tetter, mostly confined to the palms of the hands. 5. *Psoriasis labialis*, is characterized by scaliness of the skin, intermixed with fissures, and chaps, and is often wholly confined to the lip. 6. *Psoriasis scrotalis*, consists of scaliness of the scrotium, attended with heat, redness, tension and itching. 7. *Psoriasis infantilis*, is characterized by scaly patches of various sizes, on the cheeks, chin, breast, back, nates and thighs, occurring between the ages of two weeks and two months. 8. *Psoriasis inveterata*, consists of scaliness of the skin generally, which becomes harsh, dry, thickened, red and deeply furrowed.

PSORI'CUS. Pertaining to psora.

PSOROPHTHAL'MIA. From ψωρα, the itch, and οφθαλμος, the eye. Ophthalmia tarsi. Inflammation of the eyelids, attended with itching and ulceration.

PSYCHAGO'GUES. From ψυχη, life, soul, and αγω, I move. Medicines which resuscitate, as in cases of syncope.

PSYCHE. The mind or soul.

PSY'CHICAL. Relating to the mind, or mental endowments. Also, sometimes applied to analogous phenomena in the lower animals.

PSYCHOL'OGY. *Psychologia*;—from ψυχη, the mind, and λογος, a discourse. A treatise on the moral or intellectual faculties. Mental philosophy.

PSYCHO'TRIA EMETICA. Ipecacuanha.

PSYCHROLU'SIA. *Psychrolu-*

trum; from ψυχρος, cold, and λουω, I wash. A cold bath.

PSYDRA'CIUM. From ψυχρος, cold. A small irregularly circumscribed pustule, which terminates in a laminated scab.

PTAR'MICA. Achillea ptarmica.

PTAR'MICUS. From πταιρω, to sneeze. An errhine; a sternutatory.

PTERIS. The name of a genus of ferns.

PTERIS AQUILI'NA. The common brake, or female fern.

PTEROCAR'PUS. The name of a genus of plants.

PTEROCARPUS DRACO. One of the species which yields dragon's-blood.

PTEROCARPUS ERINA'CEUS. The tree which is supposed to yield the African kino.

PTEROCARPUS SANTALI'NUS. The red sanders tree.

PTERODAC'TYLE. *Pterodactylus;* from πτερον, a wing, and δακτυλος, a digit. The name of a genus of extinct reptiles, the second digit of the hand of which is very long, and is supposed to have had a wing-like expansion of the skin.

PTEROPODA. *Pteropods;* from πτερον, a wing, and πους, a foot. The class of mollusks in which the organs of motion are shaped like wings.

PTERYG'IUM. *Pterygion;* from πτερυξ, a wing. An excrescence, of a triangular shape, occurring at the inner canthus of the eye, and from thence extending over the cornea.

PTERYGO-PALATINE. Belonging, or relating, to the pterygoid process and palate.

PTERYGO-PHARYNGEUS. The constrictor pharyngeus superior.

PTER'YGOID. *Pterygoides; pterygoideus;* from πτερυξ, a wing, and ειδος, resemblance. Resembling the wing of a bird.

PTERYGOID ARTERY. The superior pharyngeal artery; also, the branches furnished to the pterygoid muscle.

PTERYGOID BONE. The sphenoid bone.

PTERYGOID CANAL. The narrow channel which traverses the base of the pterygoid process.

PTERYGOID FOSSA. The depression between the alæ of the pterygoid process.

PTERYGOID NERVES. The vidian nerve; also the branches of the inferior maxillary, distributed to the pterygoid muscles.

PTERYGOID PROCESSES. The descending processes of the sphenoid bone.

PTERYGOIDEUS EXTERNUS. A muscle arising from the outer surface of the external plate of the pterygoid process of the sphenoid bone, from the tuberosity of the superior maxilla; also, from the ridge on the sphenoid bone, separating the zygomatic from the pterygoid fossa, and is inserted into the inner side of the neck of the lower jaw.

PTERYGOIDEUS INTERNUS. A muscle, arising tendinous and fleshy from the internal surface of the pterygoid plate—fills up the greater part of the pterygoid fossa, and is inserted tendinous and fleshy in the inner face of the angle of the lower jaw and capsular ligaments of the articulation.

The *pterygoideus externus*, and *internus*, are the great agents which are concerned in producing the grinding motion of the jaws, and this they do, by acting alternately.

The external one is triangular, having its base at the pterygoid process and running outwards and backwards to the neck of the condyle. When the pair act together, the lower jaw is thrown forwards. The internal is strong and thick, placed on the inside of the ramus of the jaw, and running downwards and backwards to the angle. When it and its fellow act together, the jaw is drawn forwards and closed.

PTERYX. A wing; ala.

PTILO'SIS. From πτιλος, bald. Madarosis.

PTERYGOMA. A wing; a pendulous body.

PTI'SANA. From πτισσω, to decor-

ticate, bruise, or pound. A ptisan. A decoction of decorticated barley, and other vegetable matters.

PTO'SIS. From πιπτω, to fall. Prolapsus, or falling of the upper eyelids.

Ptosis Iridis. A prolapsus of the iris through a wound of the cornea.

PTYA'LAGOGUE. A sialagogue.

PTY'ALISM. *Ptyalismus;* from πτυαλιζω, to spit. Salivation; an increased secretion of saliva.

Ptyalism, Mercurial. Mercurial salivation.

PTYSMAGOGUE. Expectorant; sialagogue.

PUBERTY. The period of life when an individual becomes capable of propagation.

PU'BES. The lower part of the hypogastric region, which after the age of puberty is covered with hair.

PUBES'CENT. Covered with soft wool or hair.

PUBIC. *Pubicus.* Belonging to, or concerning, the pubis.

PUBIS OS. The anterior part of the os innominatum.

PUC'COON. Sanguinaria canadensis.

PUD'DING STONE. A conglomerate of rounded pebbles united by silicious paste. Polished sections are sometimes used for ornamental purposes.

PUDEN'DA. The genital organs.

PUDEND'AGRA. Pain or any disease in the genital parts.

PUDEN'DUM. *Pudenda;* from *pudere,* to be ashamed. The parts of generation.

Pudendum Muliebre. The female parts of generation; the vulva.

PU'DIC. *Pudicus.* That which causes shame. Belonging to the pudenda.

Pudic Arteries. The arteries distributed to the parts of generation.

Pudic Nerve. A branch derived from the sacral plexus, and distributed to the genital organs.

PU'ERILE. *Puerilis;* from *puer,* a child. A term applied to loud respiration when heard through the stethescope, as in healthy children.

PUER'PERA. From *puer,* a child, and *parere,* to bring forth. A lying-in woman; one recently delivered.

PUER'PERAL CONVULSIONS. Convulsions of parturient women.

Puerperal Fever. Any fever occurring during the puerperal state, but generally restricted to a malignant form of peritonites.

PUFF-BALL. Lycoperdon bovista.

PUF'FINESS. Inflation of the integuments, caused by an effusion of air, extravasation of blood, or accumulation of serum.

PUGIL'LUS. From *pugnus,* the fist. The eighth part of a handful.

PUKING. Vomiting.

PULE'GIUM. Mentha pulegium.

Pulegium Cervi'num. Mentha cervina.

PU'LEX IRRITANS. A small insect; the flea.

Pulex Penetrans. A small tick; the chigre, or chigoe.

PULICA'RIS. A cutaneous eruption resembling gnat-bites; applied, also, to diseases attended by such eruptions.

PULMO. The lung.

PUL'MOGRADES. *Pulmograda;* from *pulmo,* a lung, and *gradior,* I advance. The name of the tribe medusæ, which swim by the contraction of the vascular margin of the respiratory disc.

PULMONA'RIA. The name of a genus of plants. Lung-wort.

Pulmonaria Arborea. Lichen pulmonarius.

Pulmonaria Officina'lis. The spotted lung-wort; Jerusalem cow's-lip.

PUL'MONARY. *Pulmonalis.* Belonging, or relating, to the lungs.

Pulmonary Artery. The artery which carries the blood from the right ventricle of the heart to the lungs.

Pulmonary Consumption. Phthisis pulmonalis.

Pulmonary Plexus. The bronchial plexus.

Pulmonary Transpiration. The aqueous vapor thrown out in expiration.

Pulmonary Veins. The veins which receive the blood from the minute extremities of the pulmonary artery, unite into four trunks and empty themselves into the left auricle of the heart.

PUL'MONATA. *Pulmonates.* The order of gastropodous mollusks which breathe by lungs.

PULMON'IC. Belonging, or relating, to the lungs.

PULMONI'TIS. Pneumonitis.

PULP. *Pulpa.* The soft, succulent parts of plants and fruits.

Pulp, Dental. See Dental Pulp; also, Teeth, pulps and sacs of.

PULPA DENTIS. A dental pulp.

PULPAMEN. A pulp.

PULPO'SUS. Pulpy, soft.

PULSA'TION. *Pulsatio.* The beating of the heart and arteries; also, the beating of an inflamed part.

PULSE. *Pulsus;* from *pulso,* I beat. The beating of the arteries, but generally felt at the wrist by pressing the fingers upon the radial artery. A great number of characters of pulse have been enumerated, as a *strong pulse,* a *hard pulse,* a *soft pulse,* a *wiry pulse,* a *weak pulse,* with numerous other varieties.

PULSIMAN'TIA. Prognosis by the pulse.

PULSUS CORDIS. The impulse of the heart.

PULTA'CEOUS. Macerated, nearly fluid, having the consistence of porrage.

PULTICE. A poultice.

PULVERIZA'TION. *Pulverizatio.* The operation of reducing hard substances to powder.

PULVER'ULENT. In the state of a powder.

PUL'VIS. A powder; a substance reduced, by pulverization, into a powder.

Pulvis Aloes Compositus. Compound powder of aloes.

Pulvis Aloes Et Canellæ. Powder of aloes and canella.

Pulvis Aluminis Compositus. Compound powder of alum.

Pulvis Antimonialis. Antimonial powder.

Pulvis Antimonii Compositus.—Compound powder of antimony.

Pulvis Aromaticus. Aromatic powder.

Pulvis Asari Compositus. Compound powder of asarabacca.

Pulvis Capucinorum. Powdered cevadilla.

Pulvis Cinnamoni Compositus. Aromatic powder.

Pulvis Comitissæ. Cinchona powder.

Pulvis Cornu Cervini Usti. Burnt hartshorn.

Pulvis Cretæ Compositus. Compound powder of chalk.

Pulvis Cretæ Compositus Cum Opio. Compound powder of chalk with opium.

Pulvis Cretæ Opiatus. Compound powder of chalk with opium.

Pulvis Ipecacuanhæ Compositus. Powder of ipecacuanha and opium. Dover's powder.

Pulvis Ipecacuanhæ Et Opii. Dover's powder.

Pulvis Jalapæ Compositus. Compound powder of jalap.

Pulvis Kino Compositus. Compound powder of kino.

Pulvis Pro Cataplasmate. Powder for a cataplasm.

Pulvis Rhei Compositus. Compound powder of rhubarb.

Pulvis Salinus Compositus. Compound saline powder.

Pulvis Scammonii Compositus.—Compound powder of scammony.

Pulvis Spongiæ Ustæ. Burnt sponge.

Pulvis Stanni. Powder of tin.

Pulvis Tragacanthæ Compositus. Compound powder of tragacanth.

PUMEX. Pumice.

PUMICE. A porous volcanic substance. It is sometimes used in a finely pulverized state, in connection with other ingredients, as a dentifrice. It is also used by some, in the process of finishing pieces of mechanical dentistry.

PUMILIO. *Pumilus.* A dwarf.

PUNCH. *Rhizagra;* from *pungere,* to prick. An instrument sometimes employed in the extraction of teeth, on the right side of the mouth. This instrument is called by the French, *pied-de-biche,* (hind's foot.) It consists of a steel shaft, fixed in a bulbous handle, parallel to its length; the extremity bent a little downwards, bifurcated and grooved upon its upper surface. Also, a steel instrument, with a small, hardened point, used for making holes through thin plates of softer metal, as the *backings of mineral teeth,* for the platina rivets. See Extraction of Roots of Teeth.

Punch Forceps. In *Mechanical Dentistry,* an instrument resembling a pair of forceps, employed for punching holes through the metallic backings for the rivets of mineral plate teeth.

Puncta Ossificationis. Points of ossification.

PUNCTATE. Dotted.

PUNCTIC'ULÆ. Petechiæ.

PUNCTUM. From *pungo,* to prick. A point.

Punctum Au'reum. *Punctura aurea.* The name of an operation formerly performed for the reduction of intestinal hernia.

Punctum Sa'liens. The first point developed after the fecundation of the germ.

PUNCTURA. A puncture; also, paracentesis.

Punctured Wound. A wound made by a long, pointed instrument, penetrating to a considerable depth.

PUNGENT. Sharp; stinging; biting; acrid.

PU'NICA. The name of a genus of plants.

Punica Grana'tum. The pomegranate.

PUPA. *Pupe.* An insect in the third, or last state but one, of its existence.

PUPIP'AROUS. Insects which produce their young in a pupa state, as the *hippobosca equina,* or forest-fly.

PUPIL. *Pupilla.* The opening of the iris, through which the rays of light pass.

Pupil, Artificial. An opening formed through the iris after it is closed.

Pupil, Closure of the. Synezesis.

PUPIL'LARIS. From *pupilla,* the pupil. Belonging to the pupil.

Pupillaris Memerana. The pupillary membrane.

PURBLINDNESS. Myopia.

PURGAMEN'TUM. A purge.

PURGA'TION. *Purgatio.* Catharsis; the action of purgative medicine.

PURGATIONES. The menses.

PURGATIVE. From *purgare,* to cleanse. A medicine which increases very considerably the alvine evacuations.

PURGE. A purgative.

PURGE ROOT. Euphorbia corollata.

PURGING-NUT. Jatropha curcas.

PU'RIFORM. *Puriformis,* from *pus,* and *forma,* resemblance. That which resembles or has the character of pus.

PURLAND. Practical Directions for Preserving the Teeth; Advice to Parents; Growth and Structure of the Teeth; with an Account of the Most Approved Methods of Supplying their loss; Description of, and remarks upon, every operation connected with the Teeth; and Strictures upon the Practice of Pretenders to Dental Surgery; including Crockery Teeth, Transplanting, Excision, &c., by. London, 1834.—Dental Hemorrhage, London Forceps, volume first.

PURPLE POWDER OF CASSIUS. Aurum stanno paratum.

PURPLES. Purpura hæmorrhagica.

PUR'PURA. A purple color. Livid spots upon the skin, occasioned by an extravasation of blood, and attended by debility and pains in the limbs. Purpura is divided into five species; 1. *Purpura simplex*, which consists of petechiæ, without much constitutional disturbance. 2. *Purpura hæmorrhagica*, or *land scurvy*. 3. *Purpura urticans*, consisting of circular elevations of the cuticle that gradually dilate, and in a short time subside, and assume a darker and ultimately a livid appearance. 4. *Purpura senilis*, affects elderly women, and is characterized by the appearance of purple spots of an irregular form, and varying in size on the outside of the forearm. 5. *Purpura contagiosa*, is the occurrence of petechiæ in typhoid fevers.

Purpura Alba. Miliary fever, when the pustules are white, is sometimes so termed, and *purpura rubra*, when they are red.

Purpura Nautica. Sea scurvy.

PURPU'REUS. Purple.

PURSLANE. Portulaca oleracea.

PU'RULENT. *Purulentus;* from *pus*. A term applied to all collections of matter which consists of pus, and to diseases characterized by its formation.

PUS. Matter. The product of suppuration consequent on inflammation of the cellular tissue. When of a good quality, it is of a yellowish-white color, inodorous, heavier than water, and of a creamy consistence.

PUSILLA'TUM. *Pusulatum;* from *pusillus*, small. A coarse powder.

PUSTULA ORIS. Aphtha.

PUS'TULE. *Pustula;* from *pus*, matter. An elevation of the cuticle, sometimes of a globate, and sometimes of a conical form, with an inflamed base, containing pus or lymph.

PUTNAM, JAMES H. James H. Putnam, late surgeon dentist of New Orleans, was born, we believe, in Virginia, and commenced the study of dental surgery in 1819, under the tuition of Dr. R. Somerby, in Fredericksburg, and during the same year, accompanied his preceptor to Kentucky. He remained there, however, but a short time, and soon after located in Nashville, Tenn., where he practiced his profession until 1832, when he moved to New Orleans, which place he had several times before visited. Mr. Putnam applied himself to the study and practice of his profession with untiring energy, and for a number of years previously to his death, enjoyed a high reputation as a practitioner. He died at Vicksburg, Mississippi, in 1842.

PUTRE'DO. Hospital gangrene; putrefaction.

PUTREFAC'TION. *Putrefactio;* from *putrefacio*, to make rotten. The decomposition of organized matter, attended with a fetid exhalation. Putrefactive fermentation.

PUTRID. An epithet applied to some affections, as typhus fever, which exhibit the characters of putridity.

PYELI'TIS. From πυελος, pelvis, and *itis*, signifying inflammation. Inflammation of the pelvis and calyces of the kidney.

PYESIS. Suppuration.

PY'RIFORM. Pear-shaped.

PYLEMPHRAX'IS. From πυλη, porta, and εμφραξις, obstruction. Obstruction of the vena portæ.

PYLOR'IC. *Pyloricus.* Belonging, or relating, to the pylorus.

Pyloric Artery. A branch of the hepatic, distributed to the pylorus and lesser curvature of the stomach.

PYLO'RUS. From πυλη, an entrance, and ωρεω, to guard. The lower orifice of the stomach, is so called because it closes the entrance into the intestinal canal.

PYODES. Purulent.

PYOGEN'IA. From πυον, pus, and γενεσις, generation. The elaboration of

pus; the theory of the manner of its formation.

PYOGEN'IC. *Pyogenicus.* Connected with the formation of pus.

PYOHÆ'MIA. From πυον, pus, and αιμα, blood. Alteration of the blood by pus.

PYON. Pus.

PYOP'TYSIS. From πυον, pus, and πτυω, I spit. Spitting of pus.

PYORRHŒ'A. From πυον, pus, and ρεω, I flow. A discharge of purulent matter.

PYOSIS. Suppuration.

PYOTURIA. Pyuria.

PYR'AMID. *Pyramis;* in *Anatomy*, a small bony protuberance in the cavity of the tympanum.

PYRAMIDAL. Having the form of a pyramid.

PYRAMIDA'LE OS. The cuniform bone.

PYRAMIDA'LIS ABDOM'INIS. A small muscle of pyramidal shape, situated in front of the abdomen.

Pyramidalis Faciei. Levator labii superioris alæque nasi.

Pyramidalis Nasi. A thin triangular portion of the occipito-frontalis, situated over the nose.

PYREC'TICA. From πυρετος, fever. Fevers. The first order in the class *hæmatica* of Dr. Good.

PYRE'THRUM. Anthemis pyrethrum.

PYRE'TIC. *Pyreticus;* from πυρ, fire. Pertaining to fever.

PYRETOL'OGY. *Pyretologia;* from πυρετος, fever, and λογος, a discourse. A treatise on fevers.

PYRETOS. Fever.

PYREX'IA. From πυρ, fire. Fever.

PYREX'IÆ. Febrile diseases.—The first class of Cullen's Nosology.

PYREX'IAL. *Pyrexialis.* Febrile.

PYR'IFORM. *Pyriformis;* from *pyrum*, a pear, and *forma*, resemblance. Pear-shaped.

PYRIFORMIS. A small muscle of the pelvis, situated under the glutæus maximus.

PYRITES. Minerals presenting a whitish or yellowish metallic lustre, and consisting of a combination of sulphur with iron, copper, cobalt, or nickel.

PYR'OLA. Round-leaved wintergreen.

Pyrola Macula'ta. Spotted pipsissewa; ground holly.

Pyrola Umbella'ta. Chimaphila; pipsissewa; wintergreen. It has tonic and diuretic properties.

PYROLIG'NEOUS ACID. Acetic acid obtained by distillation from wood, coal, &c.

Pyroligneous Ether. Methylic ether.

Pyroligneous Spirit. Pyroxylic spirit.

PYROMALIC ACID. Malic acid.

PYROM'ETER. An instrument for ascertaining higher degrees of temperature than the thermometer is capable of indicating.

PYRO'SIS. From πυροω, to burn. Water-brash. A burning sensation in the stomach, with eructations of an acrid, burning liquid.

PYROTECH'NE. From πυρ, fire, and τεχνη, art. The art of making fire-works. A term which formerly signified chemistry.

PYROTICA. Caustics.

PYROTHONIDE. Empyreumatic oil obtained by the combustion of paper or rags.

PYROTICUS. Pyrotica.

PYRUS. The name of a genus of plants.

Pyrus Ancupa'ria. The mountain ash.

Pyrus Commu'nis. The pear tree.

Pyrus Cydo'nia. The quince tree.

Pyrus Malus. The apple tree.

PYUL'CUN. From πυον, pus, and ελκω, I extract. An instrument for extracting pus from any sinuous ulcer.

PYURIA. From πυον, pus, and ουρον, urine. Purulent urine, occurring in renal calculi.

PYXIS. A box; a pill-box; also, the acetabulum.

Q.

Q. P. An abbreviation for *quantum placet*.

QUACK. An empiric; a charlatan; an ignorant pretender to medical skill.

QUADRAN'GULAR. *Quadrangularis.* Four-sided. Having four angles.

QUAD'RANS. A quarter.

QUADRATES. Depressor labii inferioris.

QUADRA'TUS. From *quadra*, a square. Having a square shape; square-figured.

Quadratus Fem'oris. A muscle of the thigh.

Quadratus Genæ. The platysma myoides.

Quadratus Lumborum. A muscle situated at the side of the lower part of the spine.

QUADRIDENTA'TUS. Four-toothed.

QUADRIFID. Cleft in four parts.

QUADRIGEM'INA TUBER'CULA. The four medullary tubercles, situated at the posterior surface of the tuber annulare, called the corpora quadrigemina, or nates and testes of the brain.

QUADRIGEM'INUS PRIMUS.—The pyrimidalis muscle.

QUADRILOBATE. Four-lobed.

QUADRILOCULAR. Four-celled.

QUADRIPARTITE. Having four divisions.

QUADRIVALVE. Having four valves.

QU ADRU'MANA. Four-handed. Mammiferous animals which have four hands, as monkeys.

QUAD'RUPID. Four-footed; animals which have four feet.

QUADRUP'LICI. Fourfold.

QUAIL. Tetrao coturnix.

QUAR'ANTINE. From (Italian,) *quarantina*; which is from *quaranta*, forty; because forty days is its usual duration. The period during which travellers or goods coming from countries where the plague, or other infectious disease prevails, are required to remain on ship-board, or in a lazaretto.

QUARTAN. A term applied to intermittent fever, the paroxysms of which recur every fourth day.

QUARTARIUS. An ancient measure, equal to the fourth part of a gallon.

QUAS'SIA. The bitter wood of the quassia excelsa. Also, the name of a genus of plants.

Quassia Amara. The Surinam quassia tree.

Quassia Excelsa. The Jamaica or West Indian quassia.

QUASSIN. The bitter principle of quassia.

QUATER'NARY. Having four parts or elements.

QUATRIO. The astragalus.

QUER'CUS. Oak. Also, the name of a genus of trees.

Quercus Alba. The white oak. The bark is powerfully astringent and tonic.

Quercus Infecto'ria. The gall oak.

Quercus Marina. Sea oak.

Quercus Phellos. The willow-leaved oak.

Quercus Rubra Monta'na. The red oak, or Spanish oak.

Quercus Suber. The cork tree.

Quercus Tincto'ria. The black oak.

QUICK'ENING. The period of gestation when the motion of the fetus first becomes perceptible to the mother.

QUICKLIME. Lime freshly burned.

QUICKSILVER. Hydrargyrum; mercury.

QUI'NA. *Quinine. Quinia.* An alkali obtained from the bark of the different species of cinchona.

QUINÆ DISULPHAS. *Disul-*

phate of quina. The commercial sulphate of quinine.

QUINÆ SULPHAS. Sulphate of quina.

QUINCE. Pyrus cydonia.

QUINSY. Cynanche tonsillaris.

QUINIA. Quinina.

QUININE, SULPHATE OF.—Quinæ disulphas.

QUINQUEFOL'IUM. Potentilla reptans.

QUINQUINA. Cinchona.

QUINQUINA, MEXICAN. Iva frutescens.

QUINTA ESSENTIA. Quintessence.

QUINTAN. A fever in which the paroxysms recur every fifth day.

QUOTIDIAN. An intermittent, the paroxysms of which recur every day.

QUINTU'PLICI. Fivefold.

R.

℞. Recipe; take.

RABBIT. Lepus cuniculus.

RABID. From *rabies*, canine madness. Pertaining to hydrophobia, as *rabid virus*, &c.

RABIES CANINA. Hydrophobia.

RACE'MUS. From *ramus*, a branch. A raceme, or cluster.

RACHIAL'GIA. Rhachialgia.

RACHID'IAN. Emanating from, or distributed on, the spine.

RACHIDIAN ARTERIES. The arteries of the spine.

RACHIDIAN CANAL. The vertebral canal.

RACHIS. Rhachis.

RACHI'TIS. From ραχις, the spine, and *itis*, denoting inflammation. Literally, inflammation of the spine. Rickets.

RACO'SIS. A relaxation of the scrotum.

RA'DIAL. *Radialis*; from *radius*, a bone of the forearm. Belonging, or relating, to the radius.

RADIAL ARTERY. A branch of the brachial artery, descending by the side of the radius.

RADIAL NERVE. A nerve derived from the four inferior branches of the brachial plexus. It is distributed to the muscles of the forearm and hand.

RADIAL VEINS. The veins which follow the course of the radial artery.

RADIALIS EXTER'NUS BRE'VIOR. The extensor carpi radialis brevior.

RADIALIS EXTERNUS LONGIOR. The extensor carpi radialis longior.

RADIALIS INTERNUS. The flexor carpi radialis.

RADIA'TA. *Radiaries*; from *radius*, a ray. The lowest primary division of the animal kingdom.

RADIA'TED. *Radiatus*. Arranged in rays, diverging from one common centre.

RADIA'TION. From *radius*, a ray. The emission of the rays of light, heat, &c. from a centre.

RAD'ICAL. *Radicalis*; from *radix*, a root. Pertaining to, or springing from, the root.

RAD'ICANT. *Radicans*. Producing roots, as a stem which clings to another body for support by means of root-like processes.

RADIO-CARPAL. Belonging, or relating, to the radius and carpus.

RADISH. Raphanus hortensis.

RADISH, GARDEN. Raphanus sativus.

RADISH, HORSE. Cochlearia armoracia.

RADIUS. A spoke, so called, from

its shape. In *Anatomy*, the exterior bone of the forearm. In *Botany*, the circumference of a radiated flower. In *Geometry*, a straight line extending from the centre to the periphery of a circle.

RA'DIX. A root. In *Botany*, that part of a plant which imbibes its nourishment. In *Anatomy*, parts inserted into other parts, as the root of a tooth.

Radix Brasilliensis. Callicocca ipecacuanha.

Radix Dulcis. Glycyrrhiza glabra.

Radix Rosea. Rhodiola rosea.

Radix Rubra. Rubia tinctorium.

RAD'ULA. A wooden spatula or scraper.

RADZYGE. Norwegian leprosy.

RAER. Author of a Dissertation on the Generation and Rising of the Teeth. Lyons, 1694.

RAIA. The name of a genus of fishes.

Raia Batis. The skate.

Raia Clavata. The thorn back.

Raia Oxyrin'chus. The sharp-nosed ray.

Raia Torpe'do. The torpedo or electric ray.

RAISED PLATE, OR BASE FOR ARTIFICIAL TEETH. In preparing a metallic plate or base for artificial teeth, in those cases where the alveolar border is wanting, it sometimes becomes necessary, and, especially, where gum teeth are not employed, to thicken the plate, by soldering to it a box, or air-tight chamber, to compensate for the loss of substance which the parts have sustained. A base thus constructed, is usually termed, by dentists, a raised plate. See Metallic Base for Artificial Teeth.

RAISIN. The fruit of the vine. See Vitis Vinifera.

RAMALIS VENA. Vena portæ.

RAMENTA. Filings, as those of iron, zinc, &c.

RAMEX. A rupture, or hernia.

RAMIFICA'TION. *Ramificatio.*—The division into branches of blood-vessels and nerves. Also, the branches themselves.

RAMOLLISSEMENT. A term used by the French to designate a morbid softening of the texture of an organ.

RAMOSE. *Rameus; ramosus.*—Branched. Divided into branches.

RAMUS. In *Anatomy*, the division of an artery, vein or nerve. In *Botany*, the division of the stem of a plant.

RAMUS'CULUS. A division of a branch or ramus.

RANA. The name of a genus of animals. The frog.

Rana Esculen'ta. The edible frog.

RANCID. *Rancidus;* from *rancere*, to be stale. A term applied to fatty substances which have become acrid from age and exposure to air.

RANDALL, JOHN. John Randall, M. D., late practitioner of medicine and dental surgery, Boston, was born in Stow, Middlesex county, Massachusetts, 1773, and graduated at Harvard University, in the class of 1802—a class celebrated for the eminent talent of many of its members, and the high place they have since attained in the liberal professions.

Dr. Randall, says Dr. N. C. Keep, the gentleman to whom the author is indebted for the following biography, studied medicine with the celebrated Dr. John Jeffries of Boston, and commenced practice about the year 1805. This was an early period in the history of dental surgery in our country.

I learned from Dr. Randall, that the following was the incident which turned the energies of his active mind towards dental surgery. During his collegiate course he found his own teeth had begun to decay. He was naturally alarmed, and sought relief of the best, if not the only, dentist of that day within his reach. That practitioner frankly told him that his business was to put in *new* teeth, and declined performing any operation for the preservation of the natural teeth.

Dr. R. immediately sought for such

light as could be procured from the very few authors who had then written on the subject; supplied himself with such instruments as could then be obtained; and in the full belief that where there is a disease there must be a remedy, he matured his plans, and commenced his first dental operation upon himself.

While a pupil in medicine, Dr. Randall performed many operations for his friends and class-mates for the preservation of their teeth; and so well did he succeed, and so grateful were they for benefits conferred, that soon after he commenced the practice of medicine, he secured the confidence of the whole community in this department. So far as I can ascertain, he never advertised either branch of his profession: his modest announcement to the world was—'Dr. John Randall.' His works gave him celebrity.

I have already stated that Dr. R. was made a dentist by circumstances. It is well known that he considered the practice of medicine his calling. Dentistry, therefore, received only a portion of his attention. He declined all large operations for many years, as they interfered too much with his general professional business as a physician, and from the increased attention devoted to dentistry, there were others qualified for the business, whom he could, conscientiously, and did, cheerfully, recommend to the numerous applicants who sought for his aid. Indeed, his readiness to assure those to whom he could not attend, that some other person could do it better than he, and the generous and disinterested commendations he bestowed on those whom he knew to possess merit, are worthy of being preserved as gems of professional courtesy.

Dr. Randall was eminently successful and popular in extracting teeth. He used the key with great skill, also the forceps, long before they were known as an article of merchandize. He practiced himself and taught his pupils, that the fulcrum of the key should always be placed on the tooth as high as practicable, and the hook as low as possible on the other side of the tooth to be extracted. This could not be done by the keys then in fashion; as the distance between the fulcrum and the point of the hook, when placed as described, would not admit a common sized tooth; but by having the fulcrum short, and the hook less curved, the instrument could be applied as described, the gum would not be touched by the fulcrum, and the danger of breaking the tooth would be less than in any other mode, as the line from the point of the hook to the point where the fulcrum takes effect is diagonally across the tooth.

Dr. Randall was scrupulously conscientious. No prospect of a fee would induce him to recommend or perform an operation, which would not, in his opinion, benefit the patient.

He was decidedly conservative in his theory and practice of dental surgery. He well knew the value of a good healthy fang, upon which a new crown could be engrafted; and lamented the irreparable injury which confiding persons frequently suffered by having these valuable supports removed by practitioners culpably ignorant, or wicked enough to maim, without scruple, a fellow being for the sake of a fee.

Dr. Randall's success in engrafting teeth was very great. He was extremely careful not to jar the root; to make a close fit, to see that it articulated accurately with the opposing tooth; also, to finish the operation in as short a time as possible, thereby greatly lessening the danger of inflammation. I am confident that while I was his pupil the proportion of cases where inflammation and suppuration followed this operation was not one in twenty.

He considered ten years the average time for a good root to last and support a

new crown: though many of the teeth engrafted by him have done good service from twelve to fifteen, and some twenty years.

For nearly forty years he was a useful and honorable member of society; during which time, though he bestowed much upon the poor, he accumulated ample provision for his family.

He died in 1843, in the seventieth year of his age.

RANIFORM. From *ren*, a kidney. Kidney-shaped.

RANINE'. *Ranina;* from *rana*, a frog. The name of an artery, called *arteria ranina*. The sublingual artery.

RAN'ULA. From *rana*, a frog, so called from its fancied resemblance. A small, soft, transparent tumor, which forms under the tongue.

RANUN'CULUS. The name of a genus of plants. Also, the *ranunculus bulbosus*.

Ranunculus Abortivus. *Ranunculus acris; ranunculus pratensis*. The meadow crowfoot.

Ranunculus Bulbosus. Bulbous-rooted crowfoot.

Ranunculus Ficaria. *Ranunculus vernus*. The pilewort.

Ranunculus Flammula. The smaller water crowfoot.

Ranunculus Sceleratus. The marsh crowfoot.

RAPE. Carnal connection with a woman by force, and against her will.

RAPHA'NIA. *Convulsio raphania*. A genus of diseases in the class *neuroses*, and order *spasmi*, of Cullen, characterized by spasmodic contraction of the joints, severe pain, chills, lassitude, pain in the head and anxiety about the præcordia.

RAPH'ANUS. The radish. Also, the name of a genus of plants.

Raphanus Horten'sis. *Raphanus sativus; raphanus niger*. The radish.

Raphanus Sylvestris. Lepidium sativum.

RAPHE. A seam; a suture. A term applied, in *Anatomy*, to seam-like lines, or to parts which appear as if they had been sewed together.

Raphe Cerebri. The longitudinal eminence of the corpus callosum of the brain.

Raphe Scroti. *Raph perinei*. The eminence which divides the scrotum, as it were, in two equal halves.

RAPHIANKIS'TRON. From ραφιον, a needle, and αγκιστρον, a hook. An instrument used in the formation of an artificial pupil.

RAPHION. A needle.

RAP'TUS. From *rapio*, to seize violently. A sudden and violent seizure.

RAPUM. The turnip.

RAREFA'CIENS. From *rarus*, rare, and *facere*, to make. Medicines were so called which were supposed to give more bulk to the blood or other fluids.

RASH FEVER. Scarlatina.

Rash, Nettle. Urticaria.

Rash, Rose. Roseola.

Rash, Summer. Lichen tropicus.

Rash, Tooth. Strophulus.

RASPATO'RIUM. From *radere*, to scrape. An instrument for rasping bones.

RASPBERRY. Rubus idæus.

RASU'RA. From *radere*, to scrape. A rasure, scratch, or erosion. Also, the rasping or shaving of any substance.

RATANHY. Krameria ratanhia.

RATIO. Proportion. Also, reason or explanation.

RA'TIONAL. *Rationalis*. Conformable to reason. In *Medicine*, the treatment of disease according to reason and ratiocination, and not by routine, or in accordance with experience, which is *empirical*.

RATREE, JOHN. John Ratree, late surgeon dentist, of Lexington, Ky., was born, as nearly as the author has been able to ascertain, in Maryland, about the year 1798, and about the year 1819 he commenced the study of dental surgery, in Alexandria, Va. In 1822 he commenced the practice of

his profession in Cincinnati, Ohio, but feeling the importance of a knowledge of general medicine, he attended a course of lectures in the Medical College of Ohio, and some two or three years later he attended a course in the medical department of the Transylvania University at Lexington, Kentucky, where he graduated.

Dr. Ratree being possessed of great energy of character, and ambitious to excel in his profession, he soon acquired a justly deserved high reputation for skill as an operator, and in the treatment of the diseases of the mouth. He practiced in Lexington and the neighboring towns until 1830, when from ill health, he was induced to visit the southern states, but soon returned, and died in 1832. His memory is still warmly cherished by many who received the benefit of his professional skill.

RATSBANE. Arsenious acid.

RATTLE. Noise produced by the air in passing through the mucus, of which the lungs and air passages are unable to free themselves. It is often heard in persons who are in the act of death.

RATTLESNAKE. Crotalus horridus.

Rattlesnake-Root. Polygala senega.

RAUCE'DO. *Raucitas;* from *raucus,* hoarse. Hoarseness.

RAY. A line of light; a straight line supposed to be described by a particle of light. In *Botany,* the margin of the disk of a compound flower.

REAC'TION. *Reactio;* from *re,* again, and *agere, actum,* to act. The effort made in resisting other action or power. In *Medicine,* the vital action which follows depression, from whatever cause produced.

REA'GENT. In *Chemistry,* a test.

REAL'GAR. Protosulphuret of arsenic.

REASON. The faculty of the mind which distinguishes truth from falsehood, good from evil, and which deduces influences from facts.

RECEIVER. A chemical vessel for the reception of the product of distillation.

RECEPTAC'ULUM. *Receptacle;* from *recipio,* to receive. In *Anatomy,* a part of the thoracic duct. In *Botany,* that part of the interior of the pericarp to which the seed is attached.

Receptículum Chyli. A dilatation of the thoracic duct in front of the third lumbar vertebra.

RECIPE. ℞. Take.

RECLINA'TION. *Reclinatio;* from *reclinare,* to bend back. A name given to one of the operations for cataract.

REC'REMENT. *Recrementum.* A term applied to those secretions, which, after having been separated from the blood are again employed in the operations of the economy, as the *saliva, bile,* and *gastric juice.* Such secretions are called *recremental* humors.

RECRUDES'CENCE. *Recrudescentia.* The aggravation of a disease after a temporary remission.

RECTIFICA'TION. *Rectificatio;* from *rectus,* right, and *fio,* to be made. An operation for the purification of certain liquids.

RECTO-VAGINAL. Belonging, or relating, to the rectum and vagina.

RECTUM. So called, because it was thought to be straight. The third and last portion of the large intestines.

RECTUS. Straight. A term, applied in *Anatomy,* to certain muscles, from their direction.

Rectus Abdominis. A long, flat muscle situated at the anterior part of the abdomen, and separated from its fellow by the linea alba.

Rectus Abducens Oculi. Rectus externus oculi.

Rectus Adducens Oculi. Rectus internus oculi.

Rectus Anterior Brevis. Rectus capitis internus minor.

Rectus Anterior Longus. Rectus capitis internus major.

Rectus Attollens Oculi. Rectus superior oculi.

Rectus Capitis Internus Major. A muscle situated at the anterior and lateral part of the neck.

Rectus Capitis Internus Minor. A muscle of the neck, situated deeper than the rectus major.

Rectus Capitis Lateralis. A muscle situated immediately behind the internal jugular vein as it emerges from the cranium.

Rectus Capitis Posticus Major. A muscle situated between the occiput and second cervical vertebra.

Rectus Capitis Posticus Minor. A muscle situated beneath the last.

Rectus Externus Oculi. The outer muscle of the eye.

Rectus Femoris. A muscle situated at the forepart of the thigh.

Rectus Inferior Oculi. The inferior muscle of the eye.

Rectus Internus Femoris. Gracilis.

Rectus Internus Oculi. The internal muscle of the eye.

Rectus Superior Oculi. The upper muscle of the eye.

RECUR'RENT. *Recurrens;* from *recurrere,* to run back. Running back. A name given to branches of arteries and nerves which re-ascend towards the origin of the trunk from which they emanated.

Recurrent Arteries. Several arteries of the forearm and one of the leg are so called.

Recurrent Nerve. A branch given off by the parvagum on each side of the cavity of the thorax.

RED GUM. See Strophulus.

Red Precipitate. Hydrargyri oxydum rubrum.

Red Sanders. Pterocarpus santalinus.

REDUC'TION. *Reductio.* A surgical operation for the restoration of a dislocated or luxated bone to its original situation.

REFLEC'TION. From *reflecto,* to bend back. In *Anatomy,* a duplicature, or fold.

REFLEX ACTION. The propagation of an impression made on the extreme of one nerve, to the extremity, through the intervention of the nervous centres.

REFLECT'ED. Bent backwards.

REFRAC'TION. From *refractus,* broken back. The change of direction which a ray of light experiences in passing from a dense to a rare medium, or the reverse, or by passing obliquely from one medium into another of different density.

REFRIG'ERANT. *Refrigerans;* from *refrigero,* to cool. A medicine which has the property of reducing the heat of the body.

REGENERA'TION. Reproduction of a part of the body.

REG'IMEN. From *regere,* to govern. The regulation of the diet and habits of an individual with a view to the preservation of health, and the cure of disease.

RE'GION. *Regio.* In *Anatomy,* a certain space of the surface of the body, relatively to the neighboring parts.

REGIUS. From *rex,* a king. Royal. Applied, in *Chemistry,* to the noble metals, especially gold, and *aqua regia,* which has the power of dissolving it.

REGNART. Author of a Memoir upon a new method of Plugging the Teeth. Paris, 1818.

RE'GULUS. A term, applied to several of the inferior metals when freed from their impurities, and obtained in a metallic state.

REGURGITA'TION. *Regurgitatio.* The act by which a canal, or reservoir of the body, frees itself from substances accumulated in it.

RELAPSE. The return of a disease soon after convalescence.

RELATION OF THE TEETH OF THE UPPER JAW TO THOSE OF THE LOWER, WHEN THE MOUTH IS CLOSED. The crowns of the teeth of the upper jaw, generally

describe a rather larger arch than those of the lower. The upper incisores and cuspidati, usually shut over and in front of the lower, but, sometimes they strike plumb upon them, and at other times, though rarely, they strike on the inside. The outer tubercles of the upper bicuspides and molares, generally strike outside of those of the corresponding lower teeth. By this beautiful adaptation of the tubercles of the teeth of one jaw to the depressions of those of the other, every part of the grinding surfaces of the organs are brought in immediate contact in the act of mastication, and which operation of the teeth, in consequence, is rendered more perfect than it would be if the teeth came together in any other manner.

The incisores and cuspidati of the upper jaw are broader than the corresponding teeth in the lower; in consequence of this difference in the lateral diameter of the teeth of the two jaws, the central incisores of the upper, cover the centrals and about half of the laterals in the lower, while the superior laterals cover the remaining half of the inferior and the anterior half of the adjoining cuspidati. Continuing this peculiar relationship, the upper cuspidati closes over the remaining half of the lower, and the anterior half of the first inferior bicuspides, while the first superior bicuspides cover the remaining half of the first inferior and the anterior half of the second. In like manner, the second bicuspides of the upper jaw, closes over the posterior half of the second in the lower, and the anterior third of the first molares. The first superior molares cover the remaining two-thirds of the first inferior and the anterior third of the second, while the uncovered two-thirds of this last and anterior third of the lower dentes sapientiæ, are covered by the second upper molares. The dentes sapientiæ of the superior maxillary being usually about one-third less in their anterio-posterior diameter, cover the remaining two-thirds of the corresponding teeth in the inferior.

Thus, from this arrangement of the teeth, it will be seen, that when the mouth is closed, that each tooth is opposed to two, and, hence, in biting hard substances, and, in mastication, by extending this mutual aid, a power of resistance is given to these organs which they would not otherwise possess. Moreover, as a late English writer, Mr. Tomes, very justly observes, if one, or even two, adjoining teeth should be lost, the corresponding teeth in the other jaw would, to some extent, still act against the contiguous organs, and thus, in some degree, counteract a process, first noticed by that eminent dentist, Dr. L. Koecker, which nature sets up for the expulsion of such teeth as have lost their antagonists.

RELAXA'TION. In *Pathology*, looseness or diminution of the natural tone of parts.

REMEDY. *Remedium*. A medicine employed for the prevention, alleviation or cure of a disease.

REMIS'SION. *Remissio*. A temporary cessation of the symptoms of a disease.

REMITTENS ICTERODES. Yellow fever.

REMIT'TENT. *Remittens;* from *remitto*, to assuage or lessen. Any disease, the symptoms of which diminish, but return again without leaving the person free from disease, until it ceases, or changes its character.

Remittent Fever. A fever which increases and diminishes, but without intermission, as the bilious fever of the United States.

REMOTE. In *Pathology*, the more distant causes of disease.

REN. The kidney.

RENAL. *Renalis;* from *ren*, the kidney. Pertaining to the kidney.

Renal Artery. An artery sent off by the abdominal aorta to the kidney. See Emulgent.

Renal Vein. A large vein, the root

of which follows the same course as the artery in the substance of the kidney.

RENCHUS. Snoring; stertor.

RENES SUCCENTURIATI. The renal capsules.

REN'IFORM. *Reniformis.* Kidney-shaped.

REN'NET. *Runnet;* from (G.) *gerinnen,* to coagulate. The dried, salted stomach of a sucking calf. It is used for coagulating milk.

REPEL'LENTS. *Repellens;* from *re,* and *pellere,* to drive. Applications which, when applied to an inflamed part, causes the fluids, as it were, to recede from it.

REPERCUS'SION. The disappearance of a tumor, abscess, or eruption, in consequence of the application of a repellent.

REPLE'TION. *Repletio.* Plethora; superabundant fulness.

REPLICATE. *Replicatus.* Folded, or plaited, so as to form a groove.

REPRODUC'TION. From *reproducere,* to produce again. The function by which living bodies perpetuate their species. Generation.

REP'TILES. *Reptilia;* from *repo,* to creep. A class of vertebrated animals, comprehending the snakes, lizards, frogs, &c.

REPUL'SION. *Repulsio;* from *repello,* to repel. In *Physics,* that power by which bodies, or the particles of matter are caused to recede from each other. Also, the effect resulting from the operation of this power.

RESEC'TION. *Resectio;* from *resecare,* to cut off. An operation for the removal of the carious extremities of long bones, or false joints.

RESE'DA. The name of a genus of plants.

Reseda Luteola. The dyer's weed.

RESIN. *Resina.* A brittle, semi-translucent, inflammable vegetable product, of a bright fracture, and soluble in alcohol and oils.

Resin of Bile. Biliary resin.

Resin of Copper. Protochloride of copper.

Resin, Elastic. Caoutchouc.

Resin, White. Resina alba.

Resin, Yellow. Resina flava.

RESINA ALBA. The inspissated juice of the pinus sylvestris, &c.

Resina Flava. Yellow resin. Resin. The resin which remains in the still after distilling oil of turpentine mixed with water.

Resina Nigra. The most common resin which remains in the retort after distilling oil of turpentine from common turpentine.

Resina Novi Belgii. Botany Bay gum.

RESINA'TUM VINUM. Wine impregnated with resin.

Resolu'tio Nervorum. Paralysis.

RESOLU'TION. *Resolutio;* from *resolvere,* to loosen. A termination of inflammation without suppuration, or mortification.

RESOL'VENT. *Resolvens.* A term applied to substances which have the power of dispersing inflammation and preventing suppuration. A discutient.

RES'ONANCE. From *re,* again, and *sono,* I sound. A return, or reverberation of sound. A peculiar thrilling of the voice, or the existence of it in a part where it is not heard in health, as discovered by auscultation.

RESORP'TION. *Resorptio;* from *resorbere,* to absorb afresh. The absorption of a fluid, as of pus, serum or other fluid which has previously been poured out, or collected, in any part of the body.

RES'PIRABLE. *Respirabilis.* Capable of being respired without danger.

RESPIRA'TION. *Respiratio;* from *respiro,* I take breath. The inhalation and expiration of air; the act of breathing.

RESPIRA'TOR. An instrument to be adjusted before the mouth, to warm the inspired air, and intended for persons subject to bronchitis and pulmonary affections.

RES'PIRATORY. Pertaining to respiration.

Respiratory Murmur. A sound heard by auscultation in a healthy adult during inspiration and expiration, and occasioned by the passage of the air into, and from the cells of the lungs.

Respiratory Tract. The middle column of the spinal marrow.

RESUSCITA'TION. *Resuscitatio;* from *resuscitare*, to move up, to stir up anew. The restoration of persons, apparently dead, to life.

RETCHING. Ineffectual efforts to vomit.

RETE. A net. A term applied in *Anatomy*, to cellular membrane, and to the interlacing of nerves, blood vessels, &c., when they form a sort of network.

Rete Malpighi. The rete mucosum.

Rete Mirabile. The anastomoses of the internal carotid and vertebral arteries at the base of the brain.

Rete Mucosum. A term applied to the mucous substance situated between the cuticle and true skin.

Rete Vasculosum. Plenus retiformis.

Rete Vasculosum Testis. The network formed by the vasa recta at the upper and back part of the testicle.

RETEN'TION. *Retentio;* from *retinere*, to hold back. The accumulation of a solid or liquid substance, in a canal or cavity, intended to contain it only for a short time.

Retention of the Menses. Amenorrhœa.

Retention of Urine. Accumulation of urine in the bladder from inability to expel it.

RETIC'ULAR. *Reticularis;* from *rete*, a net. A term applied in *Anatomy*, to structures which have the appearance of a net, or web.

Reticular Substance. The cellular tissue.

RETICULATUS. Reticular.

RETIC'ULUM. Diminutive of *rete*, a net. A small net or web.

RET'IFORM. Reticular.

RET'INA. From *rete*, a net. Two almost inseparable layers of membrane, extending from the optic nerve to the crystalline lens, embracing the vitreous humor, and lining the choroid coat without adhering to either. It is formed by an expansion of the optic nerve, and constitutes the true organ of vision.

RETINAC'ULUM. An old instrument used in the operations of hernia and castration, to keep the intestines in place.

RETINI'TIS. From *retina*, the name of the part, and *itis*, a terminal, denoting inflammation. Inflammation of the retina.

RETORT. A chemical vessel employed in distillation.

RETRAC'TION. *Retractio;* from *retrahere*, to draw back. The state of a part when drawn towards the centre of the body or backwards; also, the state of being drawn up.

RETRACTOR ANGULI ORIS.—The buccinator muscle.

RET'RAHENS AURIS. Two small bundles of muscular fibres situated behind the ear.

RETROCE'DENT. A term applied in *Pathology* to a disease which moves from one part of the body to another, as sometimes happens in cases of gout.

RETROCES'SION. The act of going back. The transfer of a disease from the surface to the interior.

RETROVER'SION. *Retroversio.* Turning back; applied to the uterus, and other organs.

REVEL'LENT. Derivative; applied to that which draws inflammation or other diseased action from a part.

REVERBERATORY FURNACE. A furnace in which the flame is made to play over an arched surface.

REVERY, OR REVERIE. Irregular train of thoughts, occurring in musing or meditation, voluntary inactivity of the whole or the greater part of the external senses, during wakefulness.

REVIVIFICA'TION. Resuscitation.

REVUL'SION. *Revulsio;* from *revellere*, to pluck. The act of drawing a disease from the organ in which it appears to have taken its seat.

REVUL'SIVE. Derivative.

RHACHIAL'GIA. *Rachialgitis;* from ραχις, the spine, and αλγος, pain. Spinal irritation; pain in the spine.

RHACHIPARALY'SIS. Paraplegia.

RHACHIPHY'MA. A tumor of the spine.

RHACHIRRHEU'MA. Lumbago.

RHA'CHIS. The spine, or vertebral column.

RHACHISAGRA. From ραχις, the spine, and αγρα, a seizure. Sudden seizure of the spine, with pain. A gouty or rheumatic affection of the spine.

RHACHI'TÆ. The muscles of the spine.

RHACHI'TIS. Rachitis.

RHA'GAS. A fissure, chap, or cleft.

RHAGOI'DES. The uvea.

RHAMNA'CEÆ. The buckthorn tribe of dicotyledonous plants.

RHAM'NUS. The buckthorn. Also, the name of a genus of plants.

Rhamnus Catharticus. Buckthorn. Purging buckthorn.

Rhamnus Frangula. The black alder.

Rhamnus Zizyphus. The tree which affords the jujube.

RHAPON'TICUM. Rhapontic rhubarb.

Rhaponticum Vulgare Officinarum. Centaurea centaurium.

RHATANY. *Rhatania.* Krameria triandra.

RHEG'MA. A laceration.

RHEOME'TER. From ρεω, to flow, and μετρον, a measure. An instrument for arresting and re-establishing the electrical current of an electromagnetic machine.

RHEUM. Rheuma.

Rheum, Salt. A popular name for several cutaneous affections.

Rhe'um. The name of a genus of plants; also, rhubarb.

Rheum Rhapon'ticum. Rhapontic rhubarb.

RHEU'MA. From ρεω, to flow. The discharge from the nostrils and air passages. It is also applied to any mucous discharge.

RHEUMATAL'GIA. Chronic rheumatism.

RHEUMAT'IC. *Rheumaticus.* Belonging, or relating, to rheumatism.

RHEU'MATISM. From ρευμα, a defluxion, catarrh. A more or less painful affection occupying the muscles surrounding the joints, and sometimes the textures of the joints themselves. It is sometimes acute, and sometimes chronic.

Rheumatism, Acute. A disease usually ushered in by fever, excruciating pain in different parts of the body, but more particularly in the larger joints, which soon become red and swollen. Several joints are usually affected at the same time, and the pain shifts from one to another.

Rheumatism, Arthritic. Acute rheumatism.

Rheumatism, Cap'sular. Rheumatism affecting the lining membrane of the joints and bursæ of the tendons.

Rheumatism, Chronic. Pain in one or more of the joints, unaccompanied by inflammation, redness or fever.

Rheumatism, Gouty. Arthritis; inflammation of the synovial membrane.

Rheumatism, Præabdom'inal.—Rheumatism of the muscles of the anterior and lateral parts of the abdomen.

RHEUMATISMUS CANCROSUS. Tic douloureux; neuralgia faciei.

RHEUMATOPHY'RA. Acute rheumatism.

RHEUMATO'SIS. Rheumatism.

RHEX'IS. A rupture of any part. A spontaneous opening of an abscess.

RHIN. The nose.

RHINAL'GIA. From ριν, the nose, and αλγος, pain. Pain in the nose.

RHINEN'CHYSIS. From ριν, the nose, εν, in, and χυω, I pour. An injection into the nostrils, made with a syringe.

RHINENCHY'TES. A nose syringe.

RHINOPHO'NIA. Nasal voice.

RHINOPLAS'TIC. From ριν, the nose, and πλασσω, I form. A surgical operation for forming a new nose.

RHINORRHA'GIA. Epistaxis.

RHINOR'RHAPHY. *Rhinorrhaphia;* from ριν, the nose, and ραφη, a suture. An operation for the removal of epicanthus, or a portion of the skin of the nose.

RHIZA. A root.

RHI'ZAGRA. A punch; an instrument much used by ancient dentists in the extraction of roots of teeth, and it is occasionally employed at the present day for this purpose.

RHIZO'MA. *Rhizome.* A root-stock.

RHIZOPH'ORA. The name of a genus of plants.

Rhizophora Gymnorhi'za. The mangrove.

RHODI'OLA. The name of a genus of plants.

Rhodiola Rosea. Rosewort.

RHO'DIUM. A hard, white metal, found in crude platina.

Rhodium Lignum. Rosewood.

RHODODEN'DRON. The name of a genus of plants.

Rhododen'dron Chrysan'themum. Oleander; rose bay; yellow rhododendron.

RHODO'MELI. Honey of roses.

RHODOME'NIA. The name of a genus of seaweeds.

Rhodomenia Palma'ta. Fucus saccharatus.

RHŒ'AS. The red poppy.

RHOMBOHE'DRON. A solid having six equal rhombic planes, or sides.

RHOMB. *Rhombus.* From ρεμβω, to turn or whirl round, to wander. Literally, a deviating square. An oblique-angled, equilateral parallelogram, or a quadrilateral figure whose planes are equal, and the opposite ones parallel, with unequal angles, two being obtuse and two acute.

RHOMBOID. *Rhomboidal.* A figure having the form of a rhomb, with sides and angles equal, but which is neither equilateral nor equiangular.

RHOMBOIDE'US. A muscle of the scapula, which is sometimes described as two muscles, the rhomboideus major and rhomboideus minor.

RHON'CHUS. A rattling sound; stertor; snoring.

RHOPALO'SIS. Plica.

RHUBARB. Rheum.

RHUS. The name of a genus of plants.

Rhus Coriaria. Italian sumach. Elm-leaved sumach.

Rhus Glabrum. The common indigenous sumach.

Rhus Toxiconden'dron. Poison oak, or sumach.

Rhus Vernix. Swamp sumach.

RHYAS. A decrease or defect of the lachrymal caruncle of the eye.

RHYN'CHOLITHES. From ρυγχος, a beak, and λιθος, a stone. The fossil extremities of the mandibles of cephalopods. Beak-shaped fossils.

RHYTHM. From ρυθμος, regular movement. Applied, in *Medicine,* to the pulsations of the heart and the pulse, which, when equal in force, are said to be in rhythm.

RHYTIDO'SIS. Rutidosis.

RIB. Costa.

RIBES. The name of a genus of plants.

Ribes Nigrum. The black currant.

Ribes Rubrum. The red currant.

RICCI. Author of Principles of Odontechny, or Reflections on the Preservation of the Teeth and Gums. Paris, 1790. Also, of a Memoir upon Raciform Teeth, Paris, 1816; and upon Keeping in the Teeth and Gums, with a

liquor for their diseases, and other affections. Paris, 1816.

RICE. Oryza sativa.

RICHARDSO'NIA. The name of a genus of rubiaceous plants; several of the species of which afford the white ipecacuanha.

RICI'NUS. The castor oil plant. Also, the name of a genus of plants.

Ricinus Commu'nis. The castor oil plant.

Ricinus Major. Jatropha curcas.

RICKETS. Rhachitis.

RIC'TUS. From *ringo*, to grin. The grinning mouth, or opening between the two lips of the ringent flower.

RIGID. *Rigidus.* Hard; stiff; not pliant.

RI'GOR. From ριγιω, to shiver. A sensation of cold, with involuntary shivering.

Rigor Mortis. The rigidity which takes place after death.

Rigor Nervosus. Tetanus.

RIMA. A fissure, cleft, or opening.

Rima Glot'tidis. The opening of the glottis.

RIMO'SUS. Full of cracks.

RIMULA. A small fissure or crack.

RING. Annulus.

Ring, Femoral. An opening between Poupart's ligament and the pubes.

Ring, External Abdominal. An opening formed by the separation of the fibres of the aponeurosis of the obliquis externus.

Ring, Internal Abdominal. An opening a little above Poupart's ligament, in the fascia transversalis.

Ring-Worm. Herpes circinatus.

Ring-Worm of the Scalp. Porrigo scutulata.

RINGELMANN, C. J. On the Diseases of the Bones, and of Caries, especially that of the Teeth, by. Arnst. 1805.

RINIERE. Author of a paper entitled, Instructions for Preserving the Teeth. Paris, 1811.

RIPOGONIUM PARVIFLORUM. The sarsaparilla of New Zealand.

RISUS. From *ridere, risum*, to laugh. Laughter.

Risus Caninus. Canine laugh.

Risus Sardonicus. A sardonic laugh. A convulsive grin.

ROASTING. In *Chemistry*, a process employed for the separation of mineral substances, consisting in the volatilization of some of their principles, and in changing others so as to prepare them for other operations.

ROBIN'IA. The name of a genus of trees.

Robinia Amara. The name of a tree of Cochin China.

Robinia Pseudo-aca'cia. The common locust tree.

ROBERTSON, W. Author of a Practical Treatise on the Human Teeth. London, 1839.

ROBINSON, JAMES. The Surgical, Mechanical, and Medical Treatment of the Teeth; including Dental Mechanics, by. London and Philadelphia, 1846. Few works of the size of the above, which contains 320 pages, upon the subjects on which it treats, embodies as much correct and valuable information. Dr. Robinson is also author of a number of interesting papers published in the London Forceps, and also of a number of articles on the Importance of Medical and Surgical Knowledge to the Dentist, published in volumes 7 and 8 of the American Journal of Dental Science, in which he proves, very conclusively, the correctness of the position he assumes. Besides the above, Dr. R. has contributed several papers to the Dental Intelligencer.

ROB'ORANT. Corroborant.

ROBORANTIA. Tonics.

ROCCELLA. Canary archel.

ROCHE ALUM. Native alum.

Rochelle Salt. Soda tartarizata.

ROCK OIL. Petroleum.

ROCKET. Garden rocket. Roman rocket.

RODEN'TIA. From *rodo*, to gnaw. An order of mammalia, having two incisor teeth in each jaw, with an empty space between them and the molares, comprehending the rat and mouse, the squirrel, rabbit, musk-rat, beaver and gnawing animals.

ROLFINCK. Author of a Dissertation on Odontalgia. Jena, 1669.

RODRIGUES, B. A. Author of a report of a case of Exostosis of the Upper Jaw, published in the American Journal of Medical Science. The exostosis originated in the maxillary sinus. It was removed by Dr. R., and the patient recovered. Dr. R. is also author of a Report of a Case of Deformity of the Inferior Maxillary successfully treated, and of a paper on the Treatment of Caries of the Teeth, with Remarks on the Anatomy and Physiology of these Organs, both published in the first volume of the American Journal of Dental Science.

ROGERS, M. Author of an article on Dental Nerve Killing, published in first volume of the Dental Register of the West. Address delivered before the Cincinnati Association of Dental Surgeons, published in the fourth volume of the American Journal of Dental Science.

ROGERS, WILLIAM. Encyclopedia of Dentistry, or General Repository of all the Medico-Chirurgical Knowledge upon the Anatomy and Pathology of the Teeth.—The Two Dentitions, with Advice to Mothers, Nurses, and people generally, on the Care of the Mouth, and the Means of Preserving the Teeth in Health and Beauty, preceded by the History of Dentistry among the Ancients, and accompanied by a complete Treatise on Artificial Teeth, and particularly upon *Osanores*, by. Paris, 1845.—Dictionary of Dental Science or General Repository of all the Knowledge necessary to the Dentist, by. Paris, 1847.—Manual of Dental Hygiene for all Classes and Professions, by. Paris, 1846.

ROLLER. A long, narrow bandage.

Rolling Mill. An apparatus for reducing metal to thin plates or laminæ, consisting of two iron rollers, mounted in a strong iron frame, so adjusted as to be separated or brought near together by means of two screws, and made to revolve by means of a crank. It is used in the laboratories of dentists for for reducing gold and silver into plates to serve as attachments for artificial teeth.

ROMAN VITRIOL. Sulphate of copper.

ROOT. Radix.

ROS. Dew.

Ros Calabrinus. Calabrian manna.

Ros Solis. The sun-dew.

ROSA. The name of a genus of plants. Also, erysipelas.

Rosa Alba. The white rose.

Rosa Canina. *Rosa sylvestris.* The dog-rose, or wild brier.

Rosa Centifolia. The damask, cabbage, or hundred-leaved rose.

Rosa Gallica. The red or French rose.

ROSACE'Æ. The rose tribe of dicotyledonous plants.

ROSA'CEUS. Rose-like.

ROSALIA. Scarlatina.

ROSE. Rosa. Also, erysipelas.

Rose, Christmas. Helleborus nigre.

Rose Drill, Elliot's Improved. This improvement consists in bending the shank of a rose-drill into the form of a hook, which, says the author of the improvement, enables the operator to drill a cavity in the posterior surface of a back tooth.

Rose-Rash. Roseola.

Rose-Root. Rosewort.

ROSEMARY. Rosmarinus officinalis.

ROSE'OLA. From *rosa*, a rose. An efflorescence of a rose color, appearing in patches, of various shapes, without papulæ, alternately deepening and fading, and usually occurring as a symptom of dentition, dyspepsia, and

often in connection with different febrile affections. The following are the principal varieties: 1. *Roseola æstiva*, which generally occurs in the summer, first appearing on the face and neck, but afterwards distributed over the body, accompanied by an itching and tingling sensation. 2. *Roseola autumnalis*. This appears on children in the autumn, in the form of circular or oval patches, which gradually increase in size, and assume the hue of a dark damask rose. 3. *Roseola annulata*, appears in rose-colored rings, on almost every part of the body. 4. *Roseola infantilis*, occurs in infants, as a symptom of the irritation of dentition, in fevers, &c. 5. *Roseola variolosa*, appears previously to the eruption of small-pox, whether occurring in the natural way, or from inoculation, though seldom before the former. 6. *Roseola vaccina*, occurs generally in small patches, about the ninth or tenth day after vaccination. 7. *Roseola miliaris*, frequently occurs during the eruption of miliary vesicles.

ROSEUS. Of a rose-red color.

ROSEWOOD. Rhodium lignum.

ROSEWORT. Rhodiola rosea.

ROSIN. The residuum after the distillation of the volatile oil from the turpentine pines. Colophony.

ROSMARI'NUS. Rosemary. Also, the name of a genus of plants.

ROSMARINUS OFFICINA'LIS. *Rosmarinus hortensis*. The common rosemary.

ROSMARINUS SYLVESTRIS. Ledum palustre.

ROSS, W. B. Author of an article on the Vitality of the Teeth; published in the first volume of the Dental Register of the West.

ROSSET. Author of an Inaugural Dissertation on Dentition. Paris, an. xii.

ROSTRATE. *Rostratus*. Having a beak or bill.

ROS'TRUM. A beak. A name given to several old forceps from their resemblance to the beaks of different birds.

ROSTRUM LEPORINUM. The flesh between the divisions of double hare-lip.

ROTA'CEOUS. Wheel-like.

ROTA'TION. *Rotatio*. A revolving motion, as that of a limb around its joint.

ROTA'TOR. From *rota*, a wheel. A name given to several muscles, the office of which is, to rotate the parts upon which they act.

ROTIF'ERA. A term applied to an order of infusory animals furnished with vibratile cilia, arranged in circles in the vicinity of the mouth.

ROTULA. The patella.

ROTUN'DUS. Round.

ROUGE, POLISHING. See Polishing Rouge.

ROUND. *Rotundus*. Applied, in *Anatomy*, to foramina, and parts which have this figure, as the *foramen rotundum*, and *ligamenta rotunda*, &c.

ROUSSEAU, EM. Dissertation upon First and Second Dentitions, by. Paris, 1820.—Comparative Anatomy of the Dental System in Various Animals and Man, by. Paris, 1827. This last is one of the best works on the comparative anatomy of the teeth that has been published.

ROUX, PH. JOS. Memoir on Staphyloraphy, or Suture of the Veil of the Palate, by. Paris, 1825.

ROYAL MINERAL SUCCEDA'NEUM. A name given, by the Crawcours, to amalgam, which see.

RUBBER, INDIAN. Caoutchouc.

RUBE'DO. *Redness*; from *rubere*, to be red. A redness, uniformly diffused, on any part of the skin, as that arising from blushing.

RUBEFA'CIENT. *Rubefaciens*; from *rubens*, red, and *facio*, I make. A term applied to substances, which, when placed upon the skin, cause redness.

RUBE'OLA. From *rubere*, to be red. Measles.

RUBER. Red.

RU'BIA. The name of a genus of plants.

RUBIA TINCTO'RUM. The madder plant.

RUBIACE'Æ. The cinchona tribe of dicotyledons.

RUBICKI. Author of a Dissertation on Difficult Dentition. Rigiom, 1803.

RUBIG'INOUS. *Rubiginosus;* from *rubigo*, rust. Of the color of rust.

RUBIGO. Rust. Also, the red rust or mildew of grain.

RUBIGO CUPRI. The sub-acetate of copper. Verdigris.

RUBIGO FERRI. Sesquioxyd of iron.

RUBI'NUS VERUS. Anthrax.

RU'BRICA FABRI'LIS. A heavy, earthy matter, of a red color. Red chalk.

RUBRICA SINOP'ICA. A heavy earth, of a red color and compact texture.

RUBRIN. Hæmatosin.

RU'BUS. The name of a genus of plants.

RUBUS ARC'TICUS. The shrubby strawberry.

RUBUS CÆSIUS. The dewberry plant.

RUBUS CHAMÆMO'RUS. The cloudberry tree. Knotberry.

RUBUS FRUCTICOSUS. The common bramble. The blackberry.

RUBUS IDÆUS. The raspberry.

RUBUS TRIVIA'LIS. The low blackberry. The American dewberry.

RUBUS VILLO'SUS. The hedge blackberry.

RUC'TUS. Eructation.

RUE. Ruta graveolens.

RUE, GOAT'S. Galega officinalis.

RUE, WALL. Asplenium murale.

RU'GA. A wrinkle.

RUM. A spirituous liquor, distilled from molasses.

RU'MEN. The stomach of ruminants.

RU'MEX. The dock. Also, the name of a genus of plants.

RUMEX ACETO'SA. The common sorrel. Sour-dock.

RUMEX ACU'TUS. The sharp-pointed wild-dock.

RUMEX ALPI'NUS. Monk's rhubarb.

RUMEX AQUAT'ICUS. Rumex hydrolapathum.

RUMEX HYDROLAP'ATHUM. Water-dock.

RUMEX OBTUSIFO'LIUS. Blunt-leaved dock.

RUMEX PATIEN'TIA. The garden patience.

RUMEX SANGUIN'EUS. The bloody dock.

RUMEX SCUTA'TUS. French sorrel.

RUMINAN'TIA. Ruminants. Animals which chew the cud, as the ox, deer, &c.

RUMINA'TION. *Ruminatio.* A function peculiar to ruminating animals, consisting in chewing the food they have swallowed, a second time.

RUNNET. Rennet.

RUNUN'CULA, Raspatorium.

RU'PIA. From ρυπος, filth. A disease characterized by an eruption of large flattish vesicles, with a slightly inflamed base, and containing a fluid, at first serous, but afterwards puriform, and often bloody, which concretes into a hard crust. The disease appears under the following forms, viz. 1. *Rupia simplex*, which consists of slight vesications, and after they pass away, leave a surface of a livid or blackish color. 2. *Rupia prominens*, which is characterized by the formation of elevated conical scabs, upon the vesecated bases. 3. *Rupia escharotica*, which is confined to infants and children of a cachectic habit; the vesicles occur on the loins, thighs and lower extremities.

RUPTURE. *Ruptura.* Hernia.

RUS'CUS. Ruscus aculeatus. Also, the name of a genus of plants.

RUSCUS ACULEATUS. Butcher's broom. Knee-holly.

RUSCUS HYPOGLOS'SUM. Uvularia hypoglossum.

RUSH, SWEET. Acorus calamus; juncus odoratus.

RUSPINI, BARTH. Author of a Treatise on the Teeth, their Structure and Various Diseases. London, 1779.

RUST. The oxyd which forms on metals, when exposed to the air, especially iron.

RUTA. The name of a genus of plants. Common rue.

Ruta Graveo'lens. The common rue.

Ruta Muraria. Asplenium murale.

RUTACEÆ. The rue tribe of dicotyledonous plants.

RUTA'CEUM. Vinegar of rue.

RUTHENIUM. A metal resembling iridium and rhodium, found in the ores of platina.

RUYSCHIA'NA TU'NICA. The inner surface or coat of the choroid membrane.

RYE. Secale cereale.

Rye, Spurred. Secale cornutum; ergot; horned-rye.

RYTIS. A wrinkle.

S.

S. A. In *Medical Prescriptions*, the contraction of *secundum artem*.

SABADILLA. Veratrum sabadilla.

SABBA'TIA. The American centaury. Also, the name of a genus of plants.

Sabbatia Angularis. A bitter herb, possessing properties similar to gentian.

SABINA. Juniperus sabina.

SAB'ULOUS. *Sabulosus*. Gritty. The sandy deposit sometimes seen in urine.

SABUR'RA. Sordes; filth; coarse sand; but according to its common acceptation, foulness of stomach.

SACCATUS. Saccated; enclosed in a cyst, or bag.

SAC'CHARUM. Sugar. Also, the name of a genus of plants.

Saccharum Acer'num. Maple sugar.

Saccharum Album. Refined sugar; white sugar; loaf sugar.

Saccharum Aluminis. Alum mixed with dragon's-blood and dried.

Saccharum Can'didum. Sugar candy.

Saccharum Officinale. The cane from which sugar is obtained.

Saccharum Saturni. Acetate of lead. Sugar of lead.

SAC'CULUS. Diminutive of *saccus*, a bag. A little sac, or bag.

Sacculus Chylife'rous. The receptaculum chyli.

Sacculus Chordis. The pericardium.

Sacculus Lachryma'lis. The lachrymal sac.

SAC'CUS. A bag.

SACK. An ancient wine, probably sherry.

Sack. Saccus. A bag or pouch.

SACRA HERBA. Verbena officinalis.

Sacra Tinctura. Tincture of aloes, canella alba, and mountain wine.

SACRAL. Belonging, or relating, to the sacrum.

Sacral Arteries. These are distinguished into the anterior or middle sacral, and the lateral sacral arteries.

Sacral Nerves. The sacral nerves arise from the termination of the spinal marrow, and are six in number.

SACRO-COCCYGÆ'US. A muscle arising from the sacrum, and inserted into the coccygis.

Sacro-Coxal'gia. A rheumatic affection of the sacro-iliac symphisis.

Sacro-Iliac. Relating to the sacrum and ilium.

Sacro-Ischiatic. Relating to the sacrum and ischium.

Sacro-Lumbalis. A long muscle seated at the posterior part of the trunk, arising from the sacrum and extending to the lower part of the neck.

Sacro-Sciatic. Belonging to the sacrum and ischium.

Sacro-Sciatic Ligaments. Two ligaments which assist in securing the sacro-iliac articulation.

Sacro-Vertebral. Belonging to the sacrum and vertebra.

SACRUM. *Os sacrum.* From *sacer*, sacred. The bone which forms the posterior part of the pelvis, which is a continuation of the vertebral column.

SAFFLOWER. Carthamus tinctorius.

SAFFRON. Crocus sativus.

Saffron of Steel. Red oxyd of iron.

SAGAPE'NUM. A gum resin, supposed to be obtained from the *ferula persica.*

SAGE. Salvia officinalis.

SAGIT'TAL. *Sagittalis;* from *sagitta*, an arrow. Arrow-shaped.

Sagittal Suture. The suture which unites the two parietal bones.

SAGITTA'RIA. The name of a genus of plants.

Sagittaria Alexiphar'maca. The malacca plant, cultivated in the West Indies for its root.

Sagittaria Sagittifolia. The common arrow-head.

SAGO. The prepared fecula of the pith of *sagus rumphii.*

ST. ANTHONY'S FIRE. Erysipelas.

St. Charles' Root. Carlo sancto.

St. Ignatius' Bean. Ignatia amara.

St. James' Wort. Senecio jacobæa.

St. John's Wort. Hypericum perforatum.

St. Vitus' Dance. Chorea.

SAL. Salt. A compound of an acid with an alkali, earth, or metallic oxyd.

Sal Absinthii. Carbonate of potassa.

Sal Ægyptiacum. Nitrate of potassa.

Sal Alkalinus Volatilis. Sesquicarbonate of ammonia.

Sal Ammoniac. Muriate of ammonia.

Sal Ammoniacum Acetosum. Solution of acetate of ammonia.

Sal Ammoniacum Martiale. Ferri ammonio-chloridum.

Sal Ammoniacus Fixus. Chloride of calcium.

Sal Anglicum. Epsom salts.

Sal Antimonii. Tartarized antimony; tartar emetic.

Sal Argenti. Nitrate of silver.

Sal Chalybis. Sulphate of iron.

Sal Digestivus. Chloride of potassium.

Sal Digestivus Sylvii. Acetate of potash.

Sal Fontium. Common salt.

Sal Glauberi. Sulphate of soda.

Sal Martis. Sulphate of iron.

Sal Perlatum. Phosphate of soda.

Sal Prunellæ. Nitrate of potassa, cast into flat cakes or round balls.

Sal Saturni. Acetate of lead.

Sal Succini. Succinic acid.

Sal Tartari. Tartaric acid.

SALAAM CONVULSION. Convulsions attended with bowings of the head.

SALICA'RIA. Lithrum salicaria.

SALICOR'NIA. The name of a genus of plants.

Salicornia Europæa. The jointed glasswort.

SALIFI'ABLE. Capable of combining with an acid to form a salt.

SALINE. *Salinus;* from *sal*, salt. Containing, or of the nature of, a salt.

SALINUCA. Valeriana celtica.

SALI'VA. *Sialon; spittle.* The fluid secreted by the parotid, sub-maxillary, and sublingual glands. It is inodorous, transparent, insipid, and slightly viscid. Its use is to lubricate the mouth, mix with the alimentary bolus, and assist in the process of digestion. From fourteen to twenty ounces are secreted every twenty-four hours. Its chemical constituents, according to

Berzelius, are, water, 992.2; a particular animal matter, soluble in water, and insoluble in alcohol, 2.9; mucus, 1.4; chlorides of potassium and sodium, 1.7; lactate of soda and animal matter, 0.9; soda, 0.2. In certain states of the general health, the acetic, lactic, oxalic, muriatic and uric acids have been detected in it, but it is not improbable that these acids may have been derived from the mucous secretions of the mouth which are always more or less abundantly mixed with it. Donné, however, has detected acid in the saliva of persons affected with gastritis.

Saliva, Characteristics of The. See Fluids of the Mouth, characteristics of.

SALIVARY. Of, or belonging to, the saliva.

Salivary Calculus. *Odontolithos; odontia incrustans; tartar of the teeth.* Earthy concretions found upon the teeth and in the mouths of the salivary ducts. They sometimes accumulate upon the teeth in very large quantities, giving to the mouth an exceedingly disagreeable appearance, and, sometimes, imparting to the breath an almost insufferably offensive odor. Salivary calculus is composed, principally, of phosphate of lime and animal matter, differing, however, in their relative proportions, according as it is hard or soft, and hence scarcely any two analyses furnish the same results. According to Mr. Peps, fifty parts yields,

Phosphate of lime,	35.00
Fibrina, or cartilage,	9.00
Animal fat, or oil,	3.00
Loss,	3.00
	50.00

In an analysis made by Berzelius, one hundred parts was found to contain,

Phosphate of lime and magnesia,	79.00
Salivary mucus and salivine,	13.50
Animal matter,	7.50
	100.00

The following is the result of an analysis made by Dr. Dwinelle, a dentist of Cazenovia, New York:

Phosphate of lime,	60.00
Carbonate of lime,	14.00
Animal matter and mucus,	16.00
Water and loss,	10.00
	100.00

Hard, dry tartar contains more earthy and less animal matter, than soft humid tartar, and hence the differences in the result of different analyses.

With regard to the source from whence salivary calculus is derived, there exists some diversity of opinion.

M. Mandl says, it is composed of infusoria, and, that they are thickly distributed throughout its substance, has been satisfactorily proven, but it is not wholly composed of them, and such as are found in it, evidently have their origin in the mucous secretions of the mouth which mixes with it during its deposition. Hence, they are more or less numerous, as the tartar is hard or soft, or in proportion to the quantity of mucus mixed with it.* English and American writers on dental surgery concur in the belief that salivary calculus is a deposit from the saliva. Jourdain believes it is secreted by certain glands scattered over the dental periosteum. Gariot contends that it comes from the gums, and Serres claims to have discovered upon the mucous membrane of this structure, glands, the peculiar function of which, is to secrete this substance, but the absurdity of this theory has been fully exposed by M. Delabarre, who says, in relation to it, the small glands may, perhaps, belong to the mucous or salivary system, for the saliva, as all physiologists know, is not alone furnished by the parotid glands, but by a great number of calculus ken-

* Dr. W. H. Dwinelle has given a minute description of the microscopic appearance of the infusoria found in salivary calculus, in the first number of the fifth volume of the American Journal of Dental Science.

nels, that are very observable in ruminating animals, scattered over various parts of the mucous membrane of the mouth. I, therefore, am of the opinion, that this is a gratuitous supposition on the part of this author, because children of a very early age are not affected with tartar, and it is on them that he believes that he has discovered the glands which produce it. Did these really exist, they would augment in size, instead of decreasing, as age advanced, and their functions becoming more and more established, they would attain to a very large size in old persons, and those most subject to tartar. Now, there is nothing to lead us to suppose their existence in these individuals. Therefore, to suppose that organs that have no functions may be very perceptible, which, when they have them, cannot be discovered, is contrary to sound philosophy. Were we to do so in this case, the *dental glands* of the author, would be entirely different from all others, which are the more decided, the more they are in action. Inadmissible, then, as this supposition is, I do not believe in the existence of these glands, which I have patiently searched for, but in vain."

So conclusively has M. Delabarre refuted the opinion of Serres, that no farther argument or proof is necessary to prove its utter absurdity, for it is evident that he has mistaken the follicles of the mucous membrane covering the gums for glands.

But, while M. Delabarre has exposed one error in regard to the origin of this substance, the author is of opinion that he has fallen into another equally great. He believes that it originates from an exhalation of the mucous membrane of the mouth. Alluding to what M. Dupuy, professor of the veterinary establishment at Alfont, says, concerning the formation of tubercular matter of a calcareous nature in soft tissues, where he supposes there is no other fluid but mucous, he tells us that it is "in the same manner that the exhalents of the gums furnish tartar," and that "they give out more or less of it according as the gums are in a healthy or inflamed state." When diseased, he says, "they are covered with a whitish layer, which is at first soft," but gradually collecting upon the teeth, it afterwards becomes hard; and according to this author, it is only when the gums are inflamed that it is produced.

It is in this way that he accounts for its accumulation on the teeth of one side of the mouth, while those of the other have none of it on them, though they are all bathed alike in the saliva. The concretions of these terreous salts in the salivary conduits, he accounts for, by supposing them to be furnished by the exhalents of the mucous membrane which lines them, and not by the fluid they convey to the mouth.

Analogous formations in other parts, he accounts for in the same way. The calculous incrustations found upon a sound, on its removal, after having remained in the bladder for a long time, and from subjects in whom no previous disposition to gravel had existed, he supposes to be the result of the irritation produced by the instrument, on the mucous membrane of this viscus. In replying to this part of his argument in support of his theory that salivary calculus is furnished by the exhalents of the mucous membrane of the mouth, Mr. Bell says, "The previous non-existence of calculus in the bladder cannot be deemed any proof that the elements of its composition had not been held in solution in the urine, requiring only the occurrence of any extraneous body in the bladder to serve as a nucleus for its deposition. This view of the subject is amply confirmed by the fact, that depositions, both of the lithic salts and of the triple phosphate, the bases of the usual varieties of urinary calculi, are constantly formed from the urine after its expulsion from the bladder."

It is unfortunate for M. Delabarre, that he drew this analogy, for Mr. Bell

has shown it to be conclusive against the theory which he intended to establish by it, "and," says this author, "that salivary calculus, or tartar of the mouth, is deposited in a similar manner from the saliva, is, we think, directly proved, or at least, supported by the highest degree of probability by every circumstance connected with its formation." The fact, too, that it is always found in largest quantity on the teeth opposite the mouths of the salivary ducts, is a strong argument of itself, in favor of the theory that it is a salivary production; but, still more conclusive, is the fact of its formation within the very channels themselves of these conduits.

The theory of M. Delabarre is insufficient for the explanation of its deposition here, for, it is not at all presumable, that an inflammation would seize upon a single point of the mucous membrane of one of these passages, without affecting it to a considerable extent. The most probable cause of its formation in these conduits, therefore, appears to me, to be the accidental precipitation of a particle of it from the saliva on its passage through them, which, becoming entangled in the mucus, is detained, and afterwards serves as a nucleus for its deposition.

Of the existence of the elements of its composition in the saliva there can be no question. Chemical analyses of this fluid, direct from the glands that secrete it, place all doubt upon the subject at rest. Turner, in enumerating its chemical constituents, mentions as one, bone earth,* and, Tiedemann, Gmelin,† and Scherer,‡ have detected phosphate of lime, as has also Enderlin§ and other chemists who have analysed this fluid. Thus it is seen that the chief earthy constituent which enters into the formation of this substance is contained in the saliva. It may also exist in solution in the mucous fluid of the mouth.

The circumstance that the deposition of this substance on the teeth is always accompanied by inflammation of the gums, M. Delabarre seems to rely upon as conclusive in favor of the correctness of his views of the manner of its formation. But here again, he is equally unfortunate. The inflammation of which he speaks, is the effect, and not the cause, as he supposes, of its deposition. The soft white layer of tartar, of which he makes mention, as observable on the gums, when diseased, is nothing more than thick, hardened mucus. The author has repeatedly examined it, and is therefore, well assured of the correctness of the assertion.

The deposition of tartar on the teeth of one side of the mouth, without a similar deposit on the corresponding teeth of the opposite side, does not furnish the least shadow of evidence in support of the doctrine that this substance is an exhalation from the sanguineous capillaries of the mucous membrane of the gums. The mastication of food, with most persons, is principally performed by the teeth on one side of the mouth, and, with the fact that this function prevents, in a considerable degree, the accumulation of tartar on the organs immediately concerned, every dental practitioner is familiar. Hence, its frequent collection on the teeth of one side, and not on those of the other. That this is so, is susceptible of positive proof. If the tartar from the teeth of a person, in whose mouth it had only collected on those of one side be removed, and mastication be afterwards altogether performed on these, it will not re-accumulate on them, and if the requisite attention to the cleanliness of the teeth of the other side be not properly observed, it will soon collect on them, although they had before remained free from it. We have frequently requested our patients to do this, and such has almost invariably been the re-

* *Turner's Chemistry*, p. 756.
† *Muller's Physiology*, vol. 1, p. 561.
‡ *French Lancet*, April, 1845.
§ *Liebig, Annalen*, 1844, pp. 3 and 4.

sult, which would not have been the case, were its formation dependent on inflammation of the gums.

Again, it often happens that disease of a severe character, is excited in the gums, by the use of mercurial medicines and other causes, and yet, but a small quantity of tartar collects on the teeth; but, that any condition of the general system, or of the mouth, tending to increase the viscidity of the fluids of this cavity, promotes its formation, is undeniable. There are, however, some temperaments much more favorable to its production than others, and, it is a fact, equally well established, that the mucous membrane of those in whose mouths it accumulates in largest quantity, are the most irritable, and their buccal fluids most viscid. Again, if it were deposited by the mucous fluids of the mouth, it would collect in largest quantities on those teeth which are least abundantly bathed in the saliva, as for example, the anterior surfaces of the upper incisores and cuspidati, while those opposite to the mouths of the ducts, which discharge this fluid, would be less liable to deposits of tartar than any of the other teeth.

From all the light, therefore, that has been thrown upon this subject, the conclusion that this substance is a salivary deposit, to us appears irresistible, and, the following seems to be the manner of its formation.

It is precipitated from the saliva, as this fluid enters the mouth, on the surfaces of the teeth, opposite the openings into the ducts, from which it is poured. To these, its particles become agglutinated by a mucus that is always found, in greater or less quantity, upon them. Particle after particle is afterwards deposited, until it sometimes accumulates in such quantities that nearly all the teeth are almost entirely enveloped in it. It is always, however, found in greatest abundance on the outer surfaces of the superior molares, and the inner surfaces of the inferior incisores, and it is opposite to these that the mouths of the salivary ducts open.

Effects of Salivary Calculus upon the Teeth, Gums, and Alveolar Processes.

The presence of salivary calculus upon the teeth, is always productive of injury, though sometimes more so than others. An altered condition of the fluids of the mouth, diseased gums, and not unfrequently the gradual destruction of the alveolar processes, and the loosening and loss of the teeth, are among the consequences that result from it. But besides these, other effects are sometimes produced, among which may be enumerated: tumors, and spongy excrescences of the gums; necrosis and exfoliation of the alveolar processes, and portions of the maxillary bones, hemorrhages of the gums, anorexia and derangement of the whole digestive apparatus; foul breath, catarrh, cough, diarrhea, diseases of various kinds in the maxillary antra and nose, pain in the ear, head-ache, melancholy, hypochondriasis, &c. The character of the effects, however, both local and constitutional, produced by it, depends upon the quantity and consistence of the tartar, and the temperament and state of the general health of the individual, and the two former of these, are determined by the two latter, and the attention that is paid to the cleanliness of the teeth. If this last be properly attended to, salivary calculus, no matter how great the constitutional tendency to its production may be, will not collect upon the teeth. The importance, therefore, of its constant observance, cannot be too strongly impressed upon the mind, and especially of those in whom there exists tendency to its deposition.

When it is permitted to accumulate for any great length of time, the gums become so morbidly sensitive, that a tooth-brush cannot be used, without producing great pain; consequently, the cleanliness of the mouth is not at-

tempted, and thus, no means being taken to prevent its formation, it accumulates with increased rapidity, until the teeth, one after another, and in quick succession, fall victims to its desolating ravages.

It sometimes not only undermines the soundest constitutions, by occasioning discharges of fetid matter from the gums, and corrupting the juices of the mouth, but also renders the breath exceedingly unpleasant and offensive. So nauseating and disagreeable is the odor which some descriptions of tartar exhale, that the atmosphere of a whole room is sometimes contaminated by it in a few minutes.

Removal of Salivary Calculus from the Teeth.

For the removal of tartar from the teeth, a variety of instruments are necessary, which should be so constructed, that they may easily be applied to all of the teeth to which this substance adheres, and every dentist should be supplied with a sufficient quantity to enable him to perform the operation in the most perfect manner, for, if any particles be suffered to remain, they will irritate the gums, if in contact with them, and serve as nuclei for its immediate reaccumulation.

The adhesion of tartar to the teeth is sometimes so great, that considerable force is required for its removal, even when the sharpest and best tempered instruments are employed. Considerable tact is always necessary to perform the operation in a skilful manner; more than most persons, from the simplicity of the operation, imagine. It may be removed from the outer and inner surfaces of the teeth without much difficulty, but the removal of it from between them, is more troublesome, and can only be affected by means of very thin sharp pointed instruments.

When it has accumulated in large quantities, it should not all be taken away at one time. It should be removed first from between the edges of the gums and the necks of the teeth, affording opportunity between the respective sittings of the patient, for the gums to heal, and for any of the teeth, that are loosened, to become firm. It would also be advisable to wash the mouth, four or five times a day, with some astringent or detergent lotion, such as dilut. tinct. myrrh and nut-galls. More particular directions on this subject have been given in the articles on the Diseases of the Gums and Alveolar Processes, which see.

Solvents, such as the mineral acids, especially diluted muriatic, are sometimes employed for its removal, and though the use of chemical agents, of every description, for this purpose, is condemned by almost every writer on dental surgery, they are still, occasionally, resorted to. It should be recollected, however, that any chemical agent capable of decomposing salivary calculus, will act, with equal facility, upon the teeth.

During the operation for the removal of this substance, the gums not unfrequently bleed very freely, and to obviate the inconvenience resulting from it, it is better to remove it from the lower teeth first. It often happens, too, that the front teeth of the inferior maxillary have become so much loosened as to render necessary the greatest care, to prevent removing them in the operation.

Salivary Calculus, Characteristics of. It has already been remarked that salivary calculus is very variable in its density, and its color and quantity on the teeth of different individuals, is equally so, and these differences furnish diagnostics valuable both to the general and dental practitioner. They are less equivocal than the appearances of any of the other parts of the mouth. The relative proportions of the constituents of tartar, as has been before stated, vary, according as it is hard or soft, or as the temperament of the persons

from whose mouth it is taken, is favorable or unfavorable to health, and hence it is, that no two analyses of it give the same result.

Black, dry tartar, found only on the necks of the teeth of persons of good constitutions, is never deposited in large quantity, and is dissolved with difficulty in muriatic acid, while the dry, yellow tartar, as is remarked by Delabarre, and found on the teeth of bilious persons, dissolves more readily in it; but the soft, white tartar, found on the teeth of individuals of mucous temperaments, he tells us, "is scarcely at all, soluble in the acids," but is readily dissolved in the alkalies. Both the chemical constituents and physical characteristics of this substance, are exceedingly variable. It is, sometimes, almost wholly composed of calcareous ingredients; at other times, these constitute but one-half, or little more than one-half of its substance—the balance being made up of animal matter. Nor is its color more uniform. Sometimes it is black, at other times, it is of a dark, pale, or yellowish brown, and in some instances it is nearly white. There is also a difference in its density. In the mouths of soms persons it has a solidity of texture nearly equal to that of the teeth themselves, while in those of others, it is so soft that it can, with ease, be scraped from the teeth with the thumb or finger nail. The black kind is the hardest, the white the softest, and its density is increased or diminished as it approaches the one or the other of these colors.

Salivary calculus collects in but very small quantities on the teeth of persons possessed of the most perfect constitutions, and, even on these it is seldom found, except on the inner surfaces of the lower incisores next the gums. It is then black, or of a dark brown; very dry, and almost as hard as the teeth, to which it adheres with great tenacity.

It rarely happens that any unpleasant effects arise from the presence of this kind of tartar upon the teeth. The general health is never affected by it, and the only local injury that results from it, is, a slight turgidity of the edges of the gums in immediate contact with it.

The indications, therefore, of this description of tartar are favorable, both with regard to the teeth, gums and organism generally. The teeth upon which it is found are of an excellent quality and rarely affected with caries. They are possessed of those characteristics which have been represented as belonging to the best kind, and teeth of this description are only found among persons of good innate constitutions.

There is another kind of black tartar, differing from that which has just been described in many particulars. It is found in the mouths of those, who, though their innate constitutions were good, have, nevertheless, had their physical powers much enervated by privation of the necessary comforts of life, or disease, or intemperance and debauchery, and most frequently by the last. It is found in large quantities on the teeth opposite the mouths of the salivary ducts; it is exceedingly hard, and is agglutinated so firmly to the organs incrusted in it, that it is with the greatest difficulty that it can be removed from them; it is very black; has a rough and uneven surface; and is covered with a glairy, viscid, and almost insufferably offensive mucus.

The presence of this kind of salivary calculus is attended with very hurtful consequences, not only to the gums, alveolar processes and teeth, but also to the general health. It causes the gums to inflame, swell, suppurate and recede from the teeth—the alveoli to waste, and the teeth to loosen, and frequently to drop out. The secretions of the mouth are also vitiated by it, and thereby rendered unfit to be taken into the stomach. Hence, as long as it is permitted to remain on the teeth, neither the skill of the physician, nor the best regulated regimen, though they may

afford partial and temporary relief, will fully restore to the system its healthy functions.

As this kind of tartar is seldom if ever met with except among persons who have had excellent constitutions, the teeth on which it is deposited are generally sound, and, in this condition, they are often caused, by the effects which it produces upon the gums and alveolar processes, to loosen and drop out. Whole sets of the best constituted teeth, are in this way frequently destroyed.

The dark brown tartar is not as hard as either of the descriptions of black. It sometimes collects in tolerably large quantities on the lower front teeth, and on the first and second superior molares; it is also often found on all the teeth, though not in as great abundance as on these. It does not adhere to the teeth with as much tenacity as either of the preceding kinds, and can, therefore, be more easily detached from them. It exhales a more fetid odor than the first, but is less offensive than the second.

The persons most subject to this kind of tartar, are of mixed temperaments—the sanguineous, however, almost always predominating. They may, perhaps, be denominated sanguino-serous and bilious. Their physical organization, though not the strongest and most perfect, may, nevertheless, be considered very good. But, being more susceptible to morbid impressions, their general health is less uniform, and more liable to impairment than those possessed of the most perfect constitutions.

The effects arising from accumulations of this description of salivary calculus on the teeth, both local and constitutional, are less hurtful than that last noticed, but like that, it causes the gums to inflame, swell, suppurate, and to retire from and expose the necks of the teeth, the alveoli to waste, the teeth to loosen and sometimes to drop out. A vitiated state of the juices of the mouth, also results from its presence, or rather from the effects which it produces upon the gums and alveolar processes.

Salivary calculus that is of a pale or yellow-brown color, is of a much softer consistence than that which is dark, and is seldom found upon the teeth of persons, except those of bilious temperaments, or those in whom this disposition predominates. It has a rough, and for the most part, a dry surface; it is found in large quantities on the teeth opposite the mouths of the salivary ducts, and it sometimes happens that every tooth in the mouth is completely incrusted with it. It contains less of the earthy salts and more of the fibrina and animal fat than that of any of the foregoing descriptions, and from the quantity of vitiated mucus in it and adhering to it, has an exceedingly offensive smell. It is, sometimes, though not always, so soft that it can be crumbled between the thumb and finger.

Inflammation, turgescence and suppuration of the gums, inflammation of the alveolo-dental periosteum, the destruction of the sockets and loss of the teeth, and an altered condition of the fluids of the mouth, are among the local effects that arise from the long-continued presence of large collections of this kind of tartar on the teeth. The constitutional effects are not much less pernicious. Indigestion and general derangement of all the assimilative functions, are among the most common. If the deposition be not large, inflammation and sponginess of such parts of the gums as are in immediate contact with it, and fetid breath, are the principal, of the unpleasant, consequences that are produced by it.

While tartar rarely collects in very large quantities, and though most abundant on the outer surfaces of the first and second superior molares, and the inner surfaces of the lower incisores, it is nevertheless frequently found on all the teeth. Its calcareous ingredients are less abundant

than those of any of the preceding descriptions. Fibrina, animal fat, and mucus, constitute considerably more than one-half its substance. It is very soft, seldom exceeding in consistence common cheese curd, and to which in appearance, it bears a considerable resemblance. Although it exerts but little mechanical irritation upon the gums, it, notwithstanding, from its acrid qualities, keeps up a constant morbid excitement in them. Its effects, however, upon the teeth, are by far more deleterious than any other description of salivary calculus. It corrodes their enamels, and causes rapid decay of the organs. The fluids of the mouth are also vitiated by it.

It is only upon the teeth of persons of mucous dispositions, or those who have suffered from diseases of the mucous membranes, or those in whom these have been more or less involved, that this kind of tartar accumulates.

There is one other kind of tartar that is described by dental writers. It, however, as we have on another occasion said, is of a dark green color, and is seen more frequently on the anterior surfaces of the upper teeth occupying the front part of the mouth, than on any of the others. Its resemblance is more that of a stain on the enamel than salivary calculus. Children and young persons are more subject to it than adults, though it is occasionally observed on the teeth of the latter. It is exceedingly acrid, and has the effect of decomposing the enamel; the margins of the gums around the teeth having it on them, are inflamed, and the sanguineous capillaries of their whole substance appear to be distended and more than ordinarily languid.

This kind of discoloration of the enamel is indicative of an irritable condition of the mucous membranes and viscidity of the fluids of the mouth. Sour eructations, vomitings, diarrhea and dysentery are not unfrequent with those whose teeth are thus affected.

SALIVA'TION. *Salivatio;* from *saliva*, the spittle. A preternatural secretion of saliva, occasioned either by the use of stimulating masticatories, or some cause which acts upon the whole economy.

Salivation, Mercurial. Salivation resulting from the use of mercury.

SALIX. The name of a genus of plants.

Salix Alba. Salix fragilis.

Salix Frag'ilis. The common crack willow.

Salix Latifo'lia. The broad-leaved willow.

Salix Ca'prea. The great round-leaved willow.

SAL'MO. The name of a genus of fishes. The salmon.

SALPIANS. The order of tunicated mollusks which float in the sea.

SALPIN'GO-PHARYNGE'US. A bundle of muscular fibres which assists in dilating the mouth of the eustachian tube.

SALPINX. A tube.

SALSO'LA. The name of a genus of plants.

Salsola Kali. Prickly saltwort. A plant which produces the alkaline salt called barilla.

SALT. Sal.

Salt, Common. Muriate of soda.

SALTPETRE. Nitrate of potassa.

SALTWORT. Salsola kali.

SALUBRI'OUS. *Salubritas.* Salutary; healthy.

SALU'BRITY. From *salus*, health. Any thing which contributes to health.

SAL'UTARY. Favorable to health.

SALVATEL'LA. A vein situated on the back of the hand near its inner margin.

SALVE. An ointment.

SAL'VIA. The name of a genus of plants. Sage.

Salvia Hortensis Minor. The small sage, or sage of virtue.

Salvia Lyrata. Cancer weed.

Salvia Officinalis. The garden sage.

Salvia Scla'rea. The garden clary.

SAMBU'CUS. The name of a genus of plants.

Sambucus Eb'ulus. Dwarf-elder, or danewort.

Sambucus Nigra. *Sambucus vulgaris; sambucus arborea.* The elder tree.

SAMI TERRA. Samian earth. An argillaceous earth found in Samos.

SANABILIS. *Sanabile.* Curable.

SANA'TIO. Curation.

SAN'ATIVE. From *sano,* to cure. Curative.

SAN'DARACH. *Sandaracha; gum sandarach.* An inodorous gum-resin.

Sandarach Græcorum. Protosulphuret of arsenic.

SANDERS, RED. Pterocarpussantalinus.

SANGUIFICA'TION. *Sanguificatio;* from *sanguis,* blood, and *facio,* to make. That function of the body by which the chyle is changed into blood. Blood-making.

SANGUIFLUX'US. Hemorrhage.

SANGUINA'LIS. Knot-grass.

SANGUINA'RIA. The name of a genus of plants.

Sanguinaria Canadensis. Blood-root. Puccoon.

SANGUINE. *Sanguineous.* Relating to, or containing, blood.

SANGUIN'EOUS. Sanguine. In *Physiology,* a temperament.

SANGUINIS MISSIO. Blood-letting.

SANGUIN'OLENT. Tinged with, or of the color of, blood. Bloody.

SANGUIS. Blood.

Sanguis Draconis. Dragon's-blood.

SANGUISOR'BA. The name of a genus of plants.

Sanguisorba Officina'lis. The Italian pimpernel.

SANGUISU'GA. The leech.

SANGUISU'GUM. Congestion of blood in the heart.

SANIC'ULA. The name of a genus of plants.

Sanicula Eboracen'sis. Pinguicula vulgaris.

Sanicula Europæ'a. The sanicle.

SA'NIES. A thin, unhealthy, serous discharge from a fistula or ulcer, and most commonly mixed with blood and pus.

SANITARIUM. *Sanatorium;* from *sanitas,* health. An institution for the treatment of the sick. Also, a place, selected on account of its salubrity, for valetudinarians.

SAN'ITAS. Health.

SAN'TALUM. The name of a genus of plants.

Santalum Album. The white and yellow sanders.

Santalum Rubrum. The red sanders tree.

SANTORI'NI FISSU'RÆ. The fissures at the upper and back part of the cartilaginous portion of the external ear.

Santorini Tubercula. The cartilaginous projections on the top of the arytenoid cartilages, which support the ligaments of the glottis.

SAP. The ascending fluid of plants.

SAPHE'NA. From σαφης, manifest, evident. A name given to the two large veins of the leg.

SAPID. Having taste; not insipid.

SAPID'ITY. Tastefulness; capable of affecting the organs of taste.

SAPIN'DUS. The name of a genus of plants. The soap tree.

Sapindus Sapona'ria. The name of the plant which affords the soap-nuts.

SAPO. Soap.

Sapo Terebin'thinæ. Starkey's soap, made of dried and warm subcarbonate of potash, and oil of turpentine.

SAPONA'RIA. The name of a genus of plants.

Saponaria Nu'cula. The soap-nut.

Saponaria Officina'lis. Soapwort; bruisewort.

SAPO'NEA. A pectoral medicine, composed of an infusion of violets, sugar and oil of sweet almonds.

SAPONIFICA'TION. Conversion into soap; the process by which soap is made.

Unable to display this page

of a work, entitled the Teeth a Test of Age, considered with reference to the Factory Children; addressed to the members of both Houses of Parliament. Besides the above, he is author of a series of Lectures on the Diseases and Operations of the Teeth, published in the London Forceps.

SAUNDERS. White and yellow sanders.

Saunders, Red. Red sanders.

SAURIA. *Saurians;* from σαυρα, a lizard. An order of reptiles, comprehending the lizard, crocodile, alligator, &c.

SAVINE. *Savina.* Juniperus sabina.

Savine Ointment. Ceratum sabinæ.

SAVORY. Satureia hortensis. Also, a term applied to bodies which have an agreeable taste or smell.

SAW. In *Surgery,* an instrument used for dividing bones in amputation, and for the removal of exostoses.

Saw, Hey's. An instrument invented by Mr. Hey, to be used in fractures of the cranium.

SAXIF'RAGA. The name of a genus of plants.

Saxifraga Anglica. Peucedanum silaus.

Saxifraga Granula'ta. *Saxifraga alba.* White saxifrage.

Saxifraga Rubra. Spiræa filipendula.

Saxifraga Vulgaris. Peucedanum silaus.

SAXIFRAGE Saxifraga.

Saxifrage, Burnet. Pimpinella saxifraga.

Saxifrage, English. Saxifrage, meadow. Peucedanum silaus.

Saxifrage, White. Saxifraga granulata.

SAXIFRAGUS. Lithontriptic.

Saxon-Blue. The sulphate of indigo.

SAXON'ICUS PULVIS. A powder, formerly supposed to possess alexipharmic properties.

SCAB. An incrustation formed over a sore by the concretion of the fluid discharged from it.

SCA'BIES. From *scabo,* to scratch. *Psora.* The itch. Four species are described by Willan: 1. *Scabies papuliformis,* consisting of an extensive eruption of slightly inflamed, itching vesicles, resembling papulæ, intermixed with, and containing a thick yellow pus. 2. *Scabies lymphatica,* which consists of an eruption of intensely itching transparent pustules, on the wrists, backs of the hands, between the fingers, on the feet and toes, about the fossa of the nates, axillæ, hams, and at the bend of the elbows. 3. *Scabies purulenta,* consisting of elevated yellow pustules, inflamed around their bases, and which, in a short time, suppurate, break, and then ulcerate. 4. *Scabies cachectica,* exhibits all the appearances, on different parts of the body, of the three foregoing.

SCABIO'SA. The name of a genus of plants.

Scabiosa Arven'sis. Field scabious

Scabiosa Succi'sa. The devil's-bit scabious.

SCABIOUS. The Philadelphia fleabane.

SCABRI'TIES. Lichen; roughness.

SCALA. A ladder. An apparatus formerly employed for the reduction of dislocations of the humerus.

Scala Tym'pani. The superior spiral cavity of the cochlea of the ear.

Scala Vestib'uli. The inferior spiral cavity of the cochlea.

SCALD-HEAD. Porrigo favosa.

SCALE. *Squama.* In *Pathology,* an opaque and thickened lamina of the cuticle. In *Natural History,* the small laminæ on the surface of fishes, serpents, &c.

Scale, Dry. Psoriasis.

SCALY DISEASES. An order of cutaneous diseases in Willan and Bateman's Arrangement.

SCALE'NUS. Irregular or unequal. A muscle situated at the side of the neck, of an irregular triangular shape, divided into three portions.

SCALLOP. Ostrea maxima.

SCALP. The integuments covering the head.

SCAL'PEL. *Scalpellum;* from *scalpo*, I rasp or cut. An instrument employed in surgical operations and in dissections for dividing the soft parts.

SCAL'PRUM. A raspatory.

SCAMMO'NIUM. Scammony; a resinous substance, used as a purgative.

SCAM'MONY. Convolvulus scammonia.

SCAN'DIX. The name of a genus of plants.

SCANDIX CEREFO'LIUM. The officinal chervil.

SCANDIX ODORA'TA. Sweet cicely.

SCA'PHA. From σκαπτω, I make hollow. The cavity of the external ear, between the helix and anti-helix. Also, a double-headed roller.

SCA'PHOID. *Scaphoides;* from σκαφη, a boat, and ειδος, resemblance. Boat-like; in *Anatomy*, applied to several parts.

SCAPHOID FOSSA. A depression or cavity in the internal ala of the pterygoid process.

SCAPHOID BONE OF THE WRIST.—The boat-like bone, *os naviculare*, of the carpus.

SCAPHOID BONE OF THE FOOT. A bone situated at the forepart of the astragalus and inner part of the foot, the *os naviculare*.

SCA'PHIUM OCULARE. The shell employed for artificial eyes.

SCAP'ULA. The shoulder-blade; an irregular flat bone, of a triangular shape, situated at the posterior part of the shoulder.

SCAP'ULAR. *Scapularis;* from *scapula*, the shoulder-blade. Belonging, or relating, to the scapula.

SCAPU'LARY. A bandage for the shoulder.

SCAPULO-HU'MERAL. Pertaining to the scapula and humerus.

SCAPUS. In *Botany*, the stalk, or scape, which proceeds from the root and bears the flowers and fruit.

SCARDOVI. Author of a Dissertation on the Teeth. Argent, 1645.

SCARF-SKIN. The epidermis.

SCARIFICA'TION. *Scarificatio;* from σκαριφαομαι, to make a slight scratch. A small, superficial incision, made with a lancet or scarificator.

SCARIFICA'TOR. *Scarificatorium.* An instrument containing ten or more lancets, so contrived as to be made to penetrate to a greater or less depth, at the option of the operator, and issue at once from the box in which they are contained, by means of a spring.

SCARLATI'NA. From *scarlatto*, (Italian,) a deep red. The scarlet fever. There are two varieties of this disease: 1. *Scarlatina simplex*, or *scarlatina benigna*, which is of a mild character, and, 2. *Scarlatina anginosa*, or *scarlatina cynanchica*, which is attended with ulcerated sore-throat. *Scarlatina maligna* is regarded as a stage of the last mentioned variety.

SCARLET FEVER. Scarlatina.

SCHANGE, J. M. A. Author of a Treatise on the Treatment of Irregularity of the Teeth; published, Paris, 1842.

SCHIERS. Author of a Dissertation on the Teeth. Trageot, 1772.

SCHELHAMMER. Author of a Dissertation on the Cure of Tooth-ache, by Touching, &c. Jena, 1711.

SCHERBET'. A drink prepared with sugar and the acid fruits.

SCHERO'MA. Dry inflammation of the eye.

SCHINDYLE'SIS. An immovable articulation.

SCHMIDT. Art of Keeping the Teeth Good from Infancy up, by. Gotha, 1801.—A Few Words to those who wish to keep their teeth in good order, by. Dessau and Leyd, 1801.—Useful Instructions how to keep the Teeth good, by. Dessau, 1805.—Theory and Experience on the Teeth, by. Leipsic, 1807.

SCHMEIDEL. Author of a Dissertation on Difficult Dentition. Erl., 1751.

SCHNEIDERIAN MEMBRANE. The pituitary membrane.

SCIAT'IC. *Sciaticus; ischiatic;*—from ισχιον, the haunch. Pertaining to the ischium.

SCIATIC ARTERY. The ischiadic artery.

SCIATIC NERVE. The sacro-sciatic nerve.

SCIATIC NOTCH. A large notch at the posterior edge of each os innominatum, but which is converted into a foramen by the sacrum, and sacro-sciatic ligament.

SCIAT'ICA. Neuralgia of the sacro-sciatic nerve.

SCIERO'PIA. From σκιερος, shady, and ωψ, the eye. A defect of vision, in which all objects, assume a color darker than natural.

SCIL'LA. The squill, or sea-onion. Also, the name of a genus of plants.

SCILLA HISPANICA. Spanish squill.

SCILLA MARIT'IMA. The officinal squill.

SCILLA NUTANS. Bluebells.

SCIN'CUS. The Nile lizard.

SCIRRHOMA. Scirrhus.

SCIRRHOUS SARCOMA. A hard, smooth, vascular tumor, of a glandular structure.

SCIR'RHUS. *Scirrhoma, scirrhosis;* from σκιρρος, hard, indurated. A hard tumor, generally occurring in glandular structures, usually preceding carcinoma, and of which it may be regarded as the first stage.

SCIS'SORS. An instrument, composed of two cutting blades which move upon an axis, and are variously shaped to suit the purposes for which they are designed. In *Dental Surgery*, they are used principally for cutting gold.

SCLA'REA. Salvia sclarea.

SCLERECTOMIA. An operation which consists in the removal of a portion of the sclerotica to form an artificial pupil.

SCLERE'MUS. *Scleremia.* Induration of the cellular tissue.

SCLERENCEPHA'LIA. From σκληρος, hard, and εγκεφαλον, the brain. Induration of the brain.

SCLERI'ASIS. *Scleroma;* from σκληρος, hard. A scirrhous induration, or hard tumor.

SCLERO-. From σκληρος, hard. A prefix, signifying hardness.

SCLEROPHTHAL'MIA. From σκληρος, hard, and οφθαλμος, the eye. Pain, swelling and hardness of the eye and eyelids.

SCLERO-SARCOMA. A hard fleshy tumor, or excrescence.

SCLEROSIS. Scleriasis.

SCLEROT'IC. *Sclerotica;* from σκληροω, I harden. The dense, opaque, fibrous membrane, situated immediately under the conjunctiva, and invests nearly four-fifths of the posterior part of the globe of the eye.

SCLEROTICONYX'IS. *Sclerony-xis;* from σκληρος, hard, and νυξις, puncturing. Perforation of the sclerotic coat of the eye in the operation for cataract by depression.

SCLEROTIS. Sclerotic.

SCLEROTI'TIS. Inflammation of the sclerotic coat of the eye.

SCLERYS'MA. Induration.

SCOBS. The filings, scales, or shavings of any metal or wood. Also, the scoria of any metal.

SCOLIO'SIS. From σκολιος, crooked. A distortion of the spine.

SCOLOPAX. The name of a genus of birds.

SCOLOPAX GALLINA'GO. The common snipe.

SCOLOPAX RUSTI'COLA. The woodcock.

SCOLOPEN'DRIA. Spleenwort. Miltwaste.

SCOLOPEN'DRIUM. The name of a genus of ferns.

SCOLOPENDRIUM VULGARE. *Asplenium scolopendrium.* Heart's-tongue. Spleenwort.

SCO'LYMUS. The artichoke.

SCOM'BER. The name of a genus of fishes.

Scomber Scomber. The common mackerel.

Scomber Thynnus. The tunny fish.

SCOOP. A surgical instrument shaped like a spoon, employed for the removal of foreign bodies.

SCOPULA. A brush.

SCORACRA'SIA. Involuntary evacuation of the feces.

SCORBU'TIC. *Scorbuticus.* Belonging, or relating, to scorbutus, or scurvy. Affected with scurvy.

SCORBU'TUS. Scurvy. A disease characterized by spongy gums, offensive breath, livid spots on the skin, great general debility, and a pale, bloated countenance. It constitutes a genus in the first order of the fifth class of diseases, of Pinel, and *porphyra* of Dr. Good.

SCORIÆ. From σκωρ, excrement. The dross of purified metals, or the refuse of any substance.

SCORODUM. Garlic.

SCOR'PION. From σκορπιοω, I puncture. The name of a genus of articulated animals, having a sting at the extremity of the tail; a wound from which is very poisonous.

SCORZONE'RA. The name of a genus of plants.

Scorzonera Hispan'ica. The esculent viper's-grass.

Scorzonera Hu'milis. The officinal viper's-grass. Viper's-grass.—Goat's-grass.

SCOTODYN'IA. *Scotomia; scotasma; scotosis;* from σκοτος, darkness, and δινεω, I turn round. Giddiness, with impaired vision.

SCOTO'MIA. Scotodynia.

SCOTO'SIS. Scotodynia.

SCOTT, J. Art of Preventing the Loss of the Teeth, familiarly explained, by. London, 1834.—Every Man his own Dentist, by. London, 1838.

SCREW ELEVATOR, ELLIOT'S. An instrument invented by Dr. W. H. Elliot, for removing fangs of teeth by means of a screw which is inserted into a universal joint upon the end of the instrument. This instrument can be applied with equal facility to the fangs of the molar, as to those of the front teeth.

Screw-Plate. A plate of steel, pierced with two or more rows of holes, gradually decreasing in size from the first to the last, with a spiral thread cut on the inner wall of each. Accompanying this plate is a tap, or steel screw for each hole. This instrument is used in the laboratory of the dentist.

SCROBIC'ULUS. Diminutive of *scrobs*, a ditch. A small ditch, hollow, furrow or pit.

Scrobiculus Cordis. The pit of the stomach.

SCROFA. The sow.

SCROF'ULA. From *scrofa*, a sow, because hogs were supposed to be affected with it. A disease characterized by hard, glandular tumors in various parts of the body, but occurring most commonly in the neck, behind the ears and under the chin, suppurating slowly, and discharge, instead of pus, a white, curdled matter. It is popularly termed king's-evil. Dr. Cullen mentions four species of the disease: 1. *Scrofula vulgaris*, when it is not complicated with other disorders, is external, and permanent. 2. *Scrofula mesenterica*, when internal, and accompanied with swelling of the abdomen, pale countenance, loss of appetite, and peculiar fetor of the feces. 3. *Scrofula fugax*, when it is seated in the neck, which is the simplest form of the disease. 4. *Scrofula Americana*, when complicated with the yaws.

SCROF'ULOUS. Affected with, or relating to, scrofula.

SCROPHULA'RIA. The name of a genus of plants.

Scrophularia Aquat'ica. Great water figwort; water-betony.

Scrophularia Minor. Pilewort.

Scrophularia Nodosa. Figwort.

Scrophularia Vulgaris. Common figwort.

SCROPHULARIA'CEÆ. The figwort tribe of dicotyledonous plants.

SCROPHULOSIS. Scrofula.

SCROPHULOSUS. Scrofulous.

SCRO'TAL. *Scrotalis.* Relating to the scrotum.

Scrotal Hernia. A protrusion of any of the contents of the abdomen into the scrotum.

SCROTOCE'LE. Scrotal hernia.

SCRO'TUM. From *scorteus, scorteum,* made of leather. The integuments which cover the testicles.

Scrotum Cordis. The pericardium.

SCRUPLE. A weight of twenty grains.

SCURF. *Furfura.* Small exfoliations of the cuticle.

SCURVY. Scorbutus.

Scurvy Grass. Cochlearia officinalis.

Scurvy, Land. Purpura hæmorrhagica.

Scurvy of the Alps. Pellagra.

Scurvy of the Gums. See Gums, turgescence and ulceration of; also, Gums, preternatural prurient growth of.

SCUTIBRAN'CHIATA. *Scutibranchians;* from *scutum,* a shield, and *branchia,* gills. An order of hermaphrodite gastropodous mollusks which have their gills protected by a shield-shaped shell.

SCU'TIFORM. *Scutiformis;* from *scutum,* a shield, and *forma,* likeness. Having the form or resemblance of a shield.

Scutiform Cartilage. The thyroid cartilage.

SCUTEL'LA. A small cup.

SCUTELLA'RIA. The name of a genus of plants.

Scutellaria Galericula'ta. The skull-cap.

Scutillaria Lateriflo'ra. Skull-cap; madweed; hoodwort.

Scutellaria Integrifo'lia. Another variety, and very bitter plant.

SCYB'ALA. Hard excrement, discharged in round lumps, or balls.

SCYPHUS AUDITORIUS. The infundibulum of the cochlea.

Scyphus Cerebri. The infundibulum of the brain.

SCYTHICA RADIX. Glycyrrhiza; liquorice root.

SEA. *Mare.* A large body of water nearly surrounded by land.

Sea-Belts. Fucus saccharinus.

Sea-Green. Glaucous.

Sea-Holly. Eryngium maritimum.

Sea-Moss. Conferva rupestris and corallina officinalis.

Sea-Oak. Fucus vesiculosus.

Sea-Onion. Scilla maritima.

Sea-Salt. Sodii chloridum.

Sea-Sickness. Nausea marina.

SEAL, GOLDEN. Hydrastis canadensis.

Seal, Solomon's. Convallaria polygonatum.

SEARCHING. Sounding; the introduction of a metallic instrument into the bladder, for the purpose of ascertaining whether there be a stone in it.

SEBA'CEOUS. From *sebum,* suet. Of the nature of suet, or lard.

Sebaceous Glands. Follicles or crypts, of a round or pyriform shape, situated in the substance of the skin and opening on its surface by small excretory ducts. Similar glands are situated about the prepuce and labia majora which secrete sebaceous matter of a mucous or oily nature.

SEBESTI'NA. Cordia myxa; the smooth-leaved cordia or Assyrian plum.

SEBIZ, MELCH. On the Teeth, by, &c. Argent, 1664.—On the Teeth, (Disp. iv,) by. Argent, 1645.

SECA'LE. Rye. Also, the name of a genus of plants.

Secale Cerea'le. The rye plant.

Secale Cornutum. *Ergot;* spurred rye.

SEC'ONDARY. From *secundus,* the second. Something which acts subordinately to another, as secondary symptoms.

SECRE'TION. *Secretio;* from *secernere,* to separate. A function of the

animal economy, consisting in the separation of the materials of the blood at the extremities of the arteries, or of the vascular secretory system, and which differs in each organ, and hence the formation of bile, urine, saliva, milk, &c. There are, according to Magendie, three sorts of secretions, *exhalent*, *follicular* and *glandular*.

SECTIO. A section; an incision.

SEC'UNDINS. All that remains in the uterus after birth, as the placenta, membranes of the ovum, &c.

SECUN'DUM ARTEM. According to art.

SED'ATIVE. *Sedativus*; from *sedo*, I settle or assuage. A medicine which depresses the vital forces, and allays irritability and irritation.

SEDES. The anus; the feces.

SED'IMENT. *Sedimentum*. A deposit of substances held in solution or suspension by a liquid.

SEDUM. The name of a genus of plants.

Sedum Acre. *Sedum minus*. Wall-pepper.

Sedum Majus. Sempervivum tectorum.

Sedum Telephium. Telephium.

SEED. Semen.

Seed-Bud. The germen.

Seed-Lobe. The cotyledon.

Seed-Vessel. The pericarp.

SEE'ING. Vision. The perception of external objects by means of the organs of vision.

SEG'MENT. *Segmentum*; from *seco*, to cut off. A part cut off or divided.

SEGMENTA'TION. The act of dividing into segments.

SEGMOID VALVES. The valves of the pulmonary artery have been so called from their resemblance to the segments of a circle.

SEIDLITZ POWDER. A cooling, effervescent and aperient draught, consisting of a mixture of tartrate and bicarbonate of soda and tartaric acid.

SEISSER. Dissertation on Tooth-Ache, by. Ludg. Bat., 1675.

SEIRIASIS. The coup de soleil.

SELAGO. The upright club-moss.

SELENE. The moon.

SELENIASIS. Somnambulism.

SELERY. Apium graveolens.

SELF-HEAL. Prunella vulgaris.

SELI'BRA. Half a pound.

SELLA TURCICA. So called from its supposed resemblance to a Turkish saddle. A cavity in the sphenoid bone, bounded anteriorly and posteriorly by the clinoid processes, containing the pituitary gland.

SEMBELLA. Selibra.

SEMECARPUS. The name of a genus of plants.

Semecarpus Anacardium. The marking-nut tree.

SEMEIOL'OGY. Semeiotics.

SEMEIOT'IC. *Semeioticus, semeiosis*. Relating to the signs of disease.

SEMEIOT'ICS. Semiology.

SEMEN. From *sero*, to sow. A seed. Also, the fecundating fluid, secreted by the testicles, and carried by the vasa deferentia to the vesiculæ seminales, to be ejected into the vagina during coition.

Semen Adjowaen. A grateful, aromatic seed, the produce of the *ammi copticum*, brought from the East.

Semen Contra. Artemisia santonica.

Semen Sanctum. Artemisia santonica.

SEMI-. Half.

SEMICIRCULAR CANALS.—Three canals in the petros portion of the temporal bone which open into the vestibule of the ear.

SEMICU'PIUM. A half-bath, or one that receives only the lower extremities and hips.

SEMILU'NAR. From *semi*, half, and *luna*, the moon. Half moon-shaped.

Semilunar Cartilages. The two falciform fibro-cartilages between the condyles of the os femoris and the articular surfaces of the tibia.

Semilunar Ganglion. A ganglion of the great sympathetic nerve, situated

in the abdomen, and behind the suprarenal capsules.

Semilunar Valves. The three valves at the beginning of the pulmonary artery and aorta.

SEMI-MEMBRANOSUS. A muscle of the thigh, situated at its posterior part.

SEMINAL. Belonging, or relating, to seed, or semen.

SEMINERVOSUS. Semi-tendinosus.

SEMIOL'OGY. *Semeiotics;* from σημειον, a symptom, and λογος, a discourse. That part of medicine which treats of the signs or symptoms of disease. Symptomatology.

SEMI-ORBICULAR. *Semi-orbicularis.* Of the shape of a half globe.

Semi-Orbicularis Oris. The orbicularis oris.

Semi-Spina'lis Colli. A muscle situated at the posterior part of the neck.

Semi-Spinalis Dorsi. A muscle of the back.

Semi-Tendinosus. A muscle situated obliquely on the back part of the thigh.

SEMOLI'NA. The large hard grains retained in the bolting machine after the flour has been passed through it.

SEMPERVI'VUM. The name of a genus of plants.

Sempervivum Acre. Sedum acre.

Sempervivum Tectorum. The house-leek, or sengreen.

SENE'CIO. The name of a genus of plants.

Senecio Jacoræa. St. James'-wort. Ragwort.

Senecio Madraspat'anus. *Senecio pseudo-china.* Bastard china.

Senecio Vulgaris. Groundsel.

SENEC'TUS. From *senere,* to be old. Old age.

Senectus Ultima. Decrepitude.

SENEGA. Rattlesnake milkwort.

SENEGAL GUM. Acacia vera.

SENEKA. Polygala senega.

SENGREEN. Sempervivum tectorum.

SE'NILE. *Senilis.* Belonging, or peculiar, to old age.

SEN'NA. The produce of several plants of the genus cassia.

SENSA'TION. *Sensatio;* from *sentire, sensum,* to feel. An impression caused by external bodies on the organs of the senses, and transmitted to the brain.

SENSE. The faculty whereby animals receive impressions of the qualities of external bodies. Man is endowed with five senses, namely, *sight, hearing, smell, taste* and *touch.*

SENSIBIL'ITY. *Sensibilitas.* Susceptibility of sensation, or faculty of receiving impressions.

SENSO'RIUM. The common seat, or centre, of sensations; the brain.

SENSORY. Sentient.

SENTIENT. *Sentiens; sensory.*— Susceptibility of feeling, as the sentient extremities of the nerves.

SEPAL. One of the divisions of the calyx of flowers.

SEPARATO'RIUM. From *separo,* I separate. An instrument for separating the pericranium from the skull. Also, a pharmaceutical vessel for separating fluids of different densities from each other.

SEPEDONOGEN'ESIS. *Sepedogenesis;* from σηπεδων, putrescency, and and γενεσις, generation. A septic tendency, as in typhus fever and putrid diseases.

SE'PIA. The name of a genus of cephalopodous mollusca.

Sepia Officina'lis. Cuttle-fish. The internal shell of this animal is sometimes employed as a dentifrice.

SEPSIS. Putrefaction.

SEP'TENARY. From *septem,* seven. Consisting of seven; as, a septenary number.

SEP'TIC. *Septicus;* from σηπω, to putrefy. Relating to, or producing, putrefaction.

SEP'TUM. From *septo,* to separate. A partition; a part separating two cavities.

Septum Auricularum. The partition between the auricles of the heart.

Septum Cerebelli. The falx cerebelli.

Septum Cordis. *Septum ventriculosum.* The partition between the ventricles of the heart.

Septum Encephali. The tentorium.

Septum Lucidum. *Septum pellucidum.* The thin portion of the brain which separates the lateral ventricles from each other.

Septum Narium. The partition between the nares.

Septum Pectiniforme. The pectinated partition passing along the middle of the corpus cavernosum penis.

Septum Thoracis. The mediastinum.

Septum Transversum. The diaphragm.

SEQUE'LA. From *sequor*, to follow. Any secondary affection following upon a disease.

SEQUES'TRUM. From *sequestro*, I separate. A dead portion of bone separated from the living.

SERIC'EOUS. Silky.

SERIC'TERIA. The glands which secrete the silk in the silk worm.

SER'ICUM. Silk which is used by surgeons and dentists for ligatures. See Silk, floss. Also, the fine pubescence on plants.

Sericum Anglicum. Court-plaster.

SEROLIN. From *serum*, whey. A fatty matter detected in the blood.

SEROS'ITY. Serum.

SEROUS. *Serosus*, watery. Of the character, or nature of serum; relating to the watery portion of animal fluids.

Serous Membranes. Thin transparent laminæ, arranged in the form of a closed sac, and moistened by a thin serous fluid. The plura, peritoneum, arachnoid, &c. are of this kind.

SERPENT. *Serpens;* from *serpo*, I creep. A snake.

SERPENTA'RIA. Virginian snake-root.

Serpentaria Virginiana. Virginian snake-root.

SERPIG'INOUS. From *serpere*, to creep. A term applied to certain affections which creep, as it were, from one part to another, as a tetter or ulceration.

SERPI'GO. From *serpo*, to creep. A ringworm or tetter.

SERPYL'LUM. Wild thyme.

Serpyllum Vulgare. Common thyme.

SERRA. A saw.

SER'RATE. *Serratus.* Serrated. Having teeth on the edge or margin like those of a saw.

SERRAT'ULA. The name of a genus of plants.

Serratula Amara. A species of saw-wort.

Serratula Arvensis. The creeping way-thistle.

SERRA'TUS. From *serra*, a saw. Serrated. In *Botany*, applied to leaves which have notched edges like the teeth of a saw. In *Anatomy*, applied to muscles and other parts from their serrated appearance.

Serratus Anticus. Pectoralis minor.

Serratus Magnus. *Serratus major anticus.* A broad, fleshy, irregularly quadrilateral muscle, situated at the side of the thorax.

Serratus Posti'cus Inferior. A broad thin muscle, situated at the lower part of the back.

Serratus Posticus Superior. A small, flat, quadrilateral muscle, situated at the upper part of the back.

SERRE, J. J. J. History of the Tooth-ache during Pregnancy, by. Vienna, 1778.—Treatise on Rheumatism and Inflammation from which Gum-boils proceed, 1791.—Besides the above, Serre is author of a Practical Treatise on the Teeth, of about five hundred pages; a work containing much valuable information; published, Berlin, 1803.

SERRES, E. R. A. Essay on the Anatomy and Physiology of the Teeth,

or New Theory of Dentition, by. Paris, 1817.

SERTULA CAMPANA. The officinal melilot.

SE'RUM. The whey of milk. Also, the yellowish, watery fluid which separates from the blood when cold.

Serum Aluminosum. Alum whey.

Serum Catharticum. Purging whey.

Serum Lactis. The serum of milk. Whey.

Serum Sinapinum, Mustard whey.

SERVICE-TREE. Sorbus aucuparia.

SES'AMOID. *Sesamoideus;* from σησαμη, a grain of sesamum, and ειδος, likeness. Like the sesamum seed.

Sesamoid Bones. The small bones at the articulations of the great toes, sometimes at the joints of the thumbs, and, occasionally, at the condyles of the os femoris, and at the extremity of the fibula, under the os cuboides of the tarsus.

SES'AMUM. The name of a genus of plants.

Sesamum Orienta'le. *Benne. Oily grain.* Sesamum. An African plant, the seeds of which yield a bland oil.

SESELI. The name of a genus of plants.

Seseli Cre'ticum. Tordylum officinale.

Seseli Tortuo'sum. *Seseli massiliense.* The hartwort of Marseilles.

SESQUI. One and a half. This word is frequently joined to some number, weight, measure, &c., as *sesquigranum*, signifying a grain and a half.

SES'SILE. Attached by a base.

SETA. A bristle, or long, stiff hair, such as is found on the neck of a hog.

Seta Equina. A horse hair. The hair-worm. *Helminthus gordii.*

SETA'CEUM. A seton.

SETIG'EROUS. Bristly.

SETON. *Setaceum.* A strip of linen, or portion of silk or thread, passed through the skin and cellular membrane to keep up a constant irritation and suppuration. Also, the issue itself.

SETTERWORT. Helleborus fœtidus.

SEVUM. Suet.

Sevum Ceti. Spermaceti.

Sevum Ovile. *Sevum ovillum.* Mutton suet.

Sevum Præparatum. Prepared suet, which is done by melting and straining it through linen.

SEX. *Sexus.* The sexual difference which exists between the male and female of organized beings.

SEXTANS. *Sextant.* The sixth part of a pound.

SEXTARIUS. An ancient measure equal to a pint and a half.

SEX'TULA. The sixth part of an ounce.

SEX'UAL. *Sexualis.* Pertaining to, or that which characterizes, the sexes.

Sexual Functions. The functions by which the species are propagated.

Sexual Intercourse. Coition.

Sexual Organs. The organs of generation.

SHAKING PALSY. Synclonus agitans.

SHALLOT. Allium ascalonicum.

SHAMPOO'ING. Kneading. An eastern custom, which consists in pressing and kneading the muscles of the body, and extending the joints of the bather. It is regarded as a luxury, and as exercising a therapeutic effect.

SHEDDING. Caducus.

SHEDDING TEETH. The teeth of first dentition.

SHEEP LAUREL. Kalmia angustifolia.

SHELL. The hard external covering of testaceous and crustaceous animals and insects.

Shell Lac. A resinous substance which exudes from punctures of several East Indian trees.

SHERBET. A cooling drink, prepared with the juice of fruits, water and sugar, variously flavored.

SHEPHERD, S. M. Author of a small Treatise on the Cardinal Points of Dental Science and Practice, Petersburg, Va., 1847.—Also, of a paper on the Use of the Turn-Key, and of a a Report of a Case of Alveolar Exostosis, both published in the American Journal of Dental Science.—Besides the above, Dr. Shepherd has contributed a paper on the Employment of Amalgam for Filling Teeth, in which he opposes its use, and of an article on Artificial Teeth, published in the same periodical.

SHERRY. Sack. A deep amber colored wine, having an aromatic flavor and fragrancy, without acidity.

SHIN. The anterior part of the tibia.

SHINGLES. Herpes zoster.

SHORT-SIGHTEDNESS. Myopia.

SHOULDER-BLADE. The scapula.

SHOWER-BATH. The falling of water through apertures, from a greater or less height, upon the head and body.

SHRUB. A low, bushy tree. Also, a liquor composed of spirits, lemon juice and sugar.

SHUD'DERING. A peculiar sensation, accompanied by an involuntary spasmodic movement, and sometimes by a sensation of cold. It is sometimes the precursor of shivering, and, sometimes the result of mental operations.

SIAGON. Σιαγων. The jaw bone; the maxillary bone.

SIAGO'NAGRA. From σιαγων, the jaw, and αγρα, a seizure. Gout in the jaw.

SIAL'AGOGUE. *Sialagogus;* from σιαλοι, saliva, and αγω, I expel. Medicines which excite a preternatural flow of saliva, as pyrethrum, mercurial preparations, &c.

SIALIS'MA. Salivation.

SIALON. The saliva.

SIALORRHŒA. Salivation.

SIB'BENS. *Sivvens.* An infectious disease in some of the western counties of Scotland.

SICCAN'TIA. From *siccare,* to dry. Drying medicines.

SIC'CATION. *Siccatio.* Drying.

SICCHA'SIA. Disgust for food, such as is peculiar to pregnant women.

SICK. Laboring under disease; affected with nausea.

SICKNESS. A disease of any sort. Also, nausea, retching, or vomiting.

Sickness, Falling. Epilepsy.

SICULA. The beet.

SIDERA'TIO. *Syderatio;* from *sidus,* a star, because it was thought to be the result of the influence of the stars. Apoplexy. Also, paralysis, and gangrene.

SIDERUM. Phosphuret of iron.

SIFFLE'MENT. Whistling. A sound heard on auscultation, at times, like the humming of certain insects.

SIGHT. Vision.

Sight By Day. Hemeralopia.

Sight By Night. Nyctalopia.

Sight, Dimness of. Caligo.

Sight, Lateral. Dysopia.

SIGIL'LUM. Diminutive of *signum,* a sign. A seal or image.

Sigillum Hermeticum. The hermetic seal.

Sigillum Solomonis. Solomon's seal.

SIG'MOID. *Sigmoides;* from the Greek ς, *sigma,* and ειδος, resemblance. In *Anatomy,* applied to several parts from their resemblance to the Greek letter *sigma.*

Sigmoid Flexure. The fold of the colon where the rectum commences.

Sigmoid Valves. The valvular folds of the aorta and pulmonary artery.

SIGMOND. A Practical and Domestic Treatise on the Diseases and Irregularities of the Teeth and Gums, with the Methods of Treatment, by. Bath, 1825.

SIGN. In *Pathology,* every circumstance or phenomenon indicative of the nature and seat of a disease.

SIG'NATURES. Certain marks on the root, leaves, stem, &c. of plants, which were supposed, until the last

century, to indicate their medicinal virtues.

SIGNUM. A sign.

SILE'NE VIRGIN'ICA. Ground pink; wild pink; catch-fly.

SILER. Heartwort.

SI'LEX. Silica; flint.

SIL'ICA. Flint. Silicic acid; a compound of silicon with three atoms of oxygen. It is used in the manufacture of porcelain teeth, which see.

SIL'ICATE. A compound of silicic acid with a base.

SILI'CIOUS. From *silex*, flint.—Flinty.

SILI'CIUM. Silicon.

SIL'ICON. The basis of silicic acid.

SILIC'ULA. A pericarp, or pod, divided interiorly by a septum, to which the seed is attached, and nearly as broad as it is long.

SIL'IQUA. A dry, elongated pericarp, pod, or seed vessel, having two longitudinal sutures, and an interior partition to which the seed is attached.

SILIQUO'SUS. Having pods.

SILK. Sericum.

Silk, Dentist's Floss. Untwisted filaments of fine silk, prepared expressly for the purpose of cleaning the approximal surfaces of the teeth, and used by some dentists for finishing the surface of fillings in the sides of teeth. See Dental Hygiene and Filling Teeth.

Silk-Weed. Asclepias syriaca.

SILVER. Argentum.

Silver, Nitrate of. Argenti nitras.

Silver Leaf. Magnolia marcrophylla.

SIMAROU'BA. The name of a genus of plants.

Simarouba Officina'lis. *Quassia simarouba*. Mountain damson.

SIMARUBA'CEÆ. The quassia tribe of dicotyledonous plants.

SIMPLES. Medicinal herbs.

SINAPE. Sinapis nigra.

SINAPELÆ'ON. From σιναπι, mustard, and ελαιον, oil. Oil of mustard.

SINA'PIS. Sinapis nigra. Also, the name of a genus of plants.

Sinapis Alba. The white mustard plant.

Sinapis Nigra. The common black mustard.

SIN'APISM. *Sinapismus;* from σιναπι, mustard. A mustard cataplasm.

SINA'PIUM. An infusion of mustard seed.

SIN'CIPUT. The top of the head. Applied by some to the forepart of the head.

SINEW. A tendon.

SINGUL'TUS. A spasmodic motion of the diaphragm and adjacent parts. The hiccough.

SINUOSITAS. A sinus.

SIN'UOUS. From *sinus*, a bay or curve. Tortuous. A term applied to certain fistulous ulcers.

SINUS. A cavity, the interior of which is larger than the entrance or outlet. In *Anatomy*, certain cavities in the bones of the head and face. Also, certain venous canals into which a number of vessels empty themselves. In *Surgery*, a long, narrow, hollow track, communicating with some abscess, diseased bone, &c.

Sinus Arteriosus. The left auricle of the heart.

Sinus Corona'rius. *Sinus circularis*. A venous canal nearly surrounding the pituitary fossa and gland.

Sinus Coxæ. The acetabulum.

Sinus Falciformis. The longitudinal sinus.

Sinus, Longitudinal. See Longitudinal Sinus.

Sinus Maxillary. See Maxillary Sinus.

Sinus Muliebris. The vagina.

Sinus Pocularis. A small depression at the commencement of the caput gallinaginis of the urethra.

Sinus Renum. The pelvis of the kidney.

Sinus Uteri. The sinuses of the uterus are the large veins contained within its walls.

Sinus Venæ Portarum. The entrance of the venæ porta into the liver.

Sinus Venosus. The right auricle of the heart.

SINUSES, FRONTAL. Two cavities in the os frontis, one over each orbit.

Sinuses of the Dura Mater. The veins of the dura mater.

Sinuses of the Larynx. The ventricles of the larynx.

Sinuses of Morgagni. Small openings in the mucous membrane of the urethra.

Sinuses of Valsava. Three depressions in the aorta and pulmonary artery behind the semilunar valves.

Sinuses, Pulmonary. The depressions behind the semilunar valves of the pulmonary artery.

Sinuses, Vertebral. The two large veins extending from the occipital foramen to the end of the sacrum.

SIPHITA PARVA. Chorea.

SIPHO. A syringe.

SI'PHON. *Syphon.* A bent tube, usually having one end longer than the other, and used for conveying fluids from one vessel to another.

SIPHO'NOSTOMOUS. From σιφων, a tube, and στομα, a mouth. A term applied to crustacea, because they are furnished with a mouth like a tube.

SIPHUN'CULUS. A syringe.

SIRI'ASIS. From σιρος, the cavity of the fontanella. Disease, especially inflammation, of the brain, produced by insolation, or exposure to the influence of the solar rays.

SI'SON. The name of a genus of plants.

Sison Ammi. The plant which affords the *ammi verum.*

Sison Amo'mum. The field honeywort.

SISYM'BRIUM. The name of a genus of plants.

Sisymbrium Nastur'tium. Nasturtium aquaticum; water-cress.

Sisymbrium So'phia. The herb sophia.

SITIS. Thirst.

SITOS. Aliment.

SIÛM. The name of a genus of plants.

Sium Latifo'lium. The common water-parsnip.

Sium Ninsi. The plant the root of which is called *radix ninsi, ninzin* and *nindsin.*

Sium Nodiflo'rum. The creeping water-parsnip.

Sium Sis'arum. Skirret.

SIZE. In the *Arts,* impure hydrated gelatine. In *Medicine,* the buffy coat of the blood.

SKEL'ETON. *Sceletos.* The bones of the body preserved in their natural situation, divested of their soft parts.

SKIN. Cutis.

Skin, Scarf. The epidermis.

Skin-Bound Disease. Induration of the subcutaneous cellular tissue.

SKINNER. A Treatise on the Human Teeth, concisely explaining their structure and causes of Disease and Decay, by. New York, 1801.

SKIRRET. Sium sisarum.

SKULL. Cranium.

Skull Cap. Scutellaria galericulata. Also, a name sometimes applied to a bandage invented by Mr. Fox. See Fox's Bandage.

SKUNK CABBAGE. Dracontium fœtidum.

SLAV'ERING. Driveling; involuntary flow of saliva.

SLEEP. *Somnus.* A suspension of the voluntary exercise of the intellectual faculties and the powers of the body.

SLEEP'LESSNESS. Agrypnia; insomnia.

SLEEP-WALKING. Somnambulism.

SLING. A bandage for sustaining the forearm, suspended around the neck.

SLOE TREE. Prunus spinosa.

SLOUGH. The dead part which separates from the living in mortification.

SLUMBER. Somnolency.

SMALLAGE. Apium graveolens.

SMALL-POX. Variola.

SMALT. The protoxyd of cobalt.

SMEC'TICA. Detergents.

SMEG'MA. Soap.

SMELL. *Olfactus.* The sense which perceives and appreciates odors. Also, the qualities of bodies which affect the olfactory nerves or organs of smell.

SMELLING. Olfaction.

SMI'LAX. The name of a genus of plants.

Smilax China. The China root tree.

Smilax Sarsaparil'la. One of the trees supposed to yield sarsaparilla.

SMI'LE. A curved bistoury, having two sharp edges.

SMITH, MAYO G. A Popular Treatise on the Teeth; containing a History of the Dental Art, with anatomical descriptions of the mouth and its appendages, and accounts of chemical and physiological experiments on the teeth, &c., by. Boston, 1848.

SMITH, H. R. Author of a Paper on the Diseases of the Gums; published in volume first of Dental Register of the West.

SMYR'NIUM. The name of a genus of plants.

Smyrnium Olusa'trum. Alexanders. A plant formerly cultivated in gardens for culinary purposes.

SNAIL. *Limax.* A slimy, slow-creeping animal, of the genus *helix*, and order of *mollusca*.

SNAKE, RATTLE. Crotalus horridus.

Snake-Killing Birthwort. Aristolochia anguicida.

SNAKEROOT. Aristolochia serpentaria, and polygala senega.

Snakeroot, Black. Actæa racemosa.

Snakeroot, Button. Eryngium aquaticum.

Snakeroot, Canada. Asarum canadense.

SNAKEWEED. Polygonum bistorta.

SNAKEWOOD. Colubrinum lignum.

SNEEZEWORT. Achillea ptarmica.

SNEEZING. *Sternutatio.* A convulsive action of the expiratory muscles, commonly occasioned by irritation of the nasal fossæ.

SNELL, JAMES. Practical Guide to Operations on the Teeth, by. London, and Philadelphia, 1831. This work contains many useful practical suggestions.

SNIPS. A pair of very strong scissors or shears used in the laboratory of the dentist for shaping gold, silver, or platina plate, for bases for artificial teeth.

SNIPE. Scolopax gallinago.

SNORING. *Stertor.* The noise made by the passage of air through the fauces and nasal fossæ in respiration, either in sleep or during certain diseases, as in apoplexy.

SNUFFLES. Breathing hard through the nose.

Snuffles, Morbid. Coryza maligna.

SOAP. *Sapo.* A compound of certain oil-acids, with a salifiable base.

SOAPWORT. Saponaria officinalis.

SOB. A sudden spasmodic inspiration and expiration.

SOCIA PAROTIDIS. The accessory gland of the parotid, or a lobe of the parotid separated from the principal gland.

SODA. An Arabic word. The mineral alkali, or protoxyd of sodium, a white, caustic powder, obtained, naturally, from Eygpt, and, artificially, in limited quantity, by the incineration of marine plants, but principally from the sulphate of soda.

Soda, Acetate of. Sodæ acetas.

Soda, Borate of. Sodæ biboras.

Soda, Carbonate of. Sodæ carbonas.

Soda, Caustica. The hydrated protoxyd of soda. Caustic soda.

Soda, Dried Carbonate of. Sodæ carbonas exsiccatus.

Soda, Impura. Impure soda. *Soda. Barilla.* Soda obtained by the incineration of the sea-shore plants.

Soda, Muriate of. Sodæ murias.

Soda, Nitrate of. *Peruvian nitre.* A salt, having precisely the same qualities as nitrate of potash.

Soda Phosphate of. Sodæ phosphas.

Soda Powders. Two powders, one consisting of half a drachm of carbonate of soda, the other of twenty-five grains of tartaric acid, which, when dissolved in separate tumblers of water and mixed, form a refreshing, effervescing, saline draught.

Soda, Subcarbonate of. Sodæ carbonas.

Soda, Sulphate of. Sodæ sulphas.

Soda, Tartrate of. Sodæ potassio-tartras.

Soda Water. A refreshing effervescing draught, formed by dissolving carbonate of soda in water, and supersaturating it with carbonic acid.

SODÆ ACETAS. Acetate of soda.

Sodæ Biboras. *Sodæ boras.* Biborate of soda. Borate of soda. Borax.

Sodæ Bicarbonas. Bicarbonate of soda.

Sodæ Boras. Sodæ biboras.

Sodæ Carbonas. Carbonate of soda.

Sodæ Carbonas Exsiccatus. Dried carbonate of soda.

Sodæ Chloras. The chlorate of soda.

Sodæ Chlorinatæ Liquor. Solution of chlorinated soda.

Sodæ Hydriodas. Sodii iodidum.

Sodæ Hypochloris. Hypochlorite of soda.

Sodæ Murias. Muriate of soda. Sodii chloridum.

Sodæ Phosphas. Phosphate of soda.

Sodæ Potassio-Tartras. Tartrate of soda.

Sodæ Sesquicarbonas. An imperfect bicarbonate of soda.

Sodæ Subboras. Sodæ biboras. Borax.

Sodæ Subcarbonas. Carbonate of soda.

Sodæ Sulphas. Sulphate of soda.

SODII AURO-TERCHLORIDUM. Chloride of gold and sodium.

Sodii Chloridum. Chloride of sodium. Muriate of soda. Common salt.

Sodii Iodidum. Iodide of sodium. Hydriodate of soda.

SODIUM. The metallic base of soda.

Sodium, Chloride of. Muriate of soda.

Sodium, Oxyd of. Soda.

SOFT PALATE. The velum pendulum palati.

SOFTEN'ING. Mollities.

Softening of the Brain. Ramollissement of the brain.

SOL. The sun. A term, also applied, by the older chemists, to gold.

SOLAMEN. Consolation; a carminate.

SOLANA'CEÆ. The nightshade tribe of dicotyledonous plants.

SOL'ANOID. *Solanoides;* from *solanum*, the potato, and ειδος, resemblance. Resembling a potato. A term, applied to a form of cancer, from its resemblance to a potato.

SOLA'NUM. The bitter-sweet.—Also, the name of a genus of plants.

Solanum Dulcama'ra. Bitter-sweet. Woody nightshade.

Solanum Fœtidum. Dartura stramonium.

Solanum Lethale. Atropa belladonna.

Solanum Licoper'sicum. The love-apple plant, or tomato.

Solanum Melon'gena. The mad-apple plant. Egg plant.

Solanum Nigrum. The garden nightshade.

Solanum Racemosum. American nightshade. Poke-weed. Poke-berry.

Solanum Sanctum. The palestine nightshade.

Solanum Tuberos'um. The potato plant.

Solanum Vesicarium. The winter-cherry.

SOLAR. *Solaris;* from *sol*, the sun. Pertaining to the sun.

Solar Plexus. *Plexus solaris*. See Plexus, solar.

SOL'DER. An alloy easily fused, employed to unite the surfaces of two pieces of metal.

Solder, Gold. See Gold Solder.

SOL'DERING. A process which consists in uniting the surfaces of two pieces of metal by melting a more fusible metal (an alloy) between them, which serves, by chemical attraction and cohesive force, to bind the pieces together. The pieces may be of the same or dissimilar metals, but the metal or alloy, by which they are to be united, must have an affinity for both. Thus, gold alloyed with silver and copper, melts more easily than the first named metal, and having an affinity for it, constitutes a proper uniting medium. See Gold Solder. The surfaces, however, of the pieces to be united, should be bright, and in actual contact, to insure a uniform effect of the solder upon them. They should also be covered with a mixture of borax and water, of the consistence of cream. After this has been applied, which may be most conveniently done with a small camel's-hair pencil, a sufficient quantity of solder, cut in small pieces, should be laid along the line of contact between the gold pieces to be united, to effect the desired strength of union.

The pieces to be united, should be prevented from separating, during the application of the heat, either with plaster of paris, iron clamps, or wire. This precaution is necessary to insure a perfect union of the pieces.

These preparatory steps having been gone through with, the pieces should be placed, and made fast, upon a piece of charcoal, or pumice-stone, to prevent the too rapid escape of the heat during the actual process of soldering.

The most common method of obtaining the requisite amount of heat, is, from the flame of a spirit or oil lamp, which is thrown upon the work with a blow-pipe. When plaster is employed, this should first be heated to a red heat, by throwing the whole of the flame of the lamp in a flaring manner over it. This done, it should be concentrated upon the point where it is wished that the solder should take effect, and kept there until it fuses and flows between the pieces to be united. Should it flow in a wrong direction, from an improper application of the heat, the concentrated point of the flame should be moved to the proper place, when the solder will immediately return and take effect there.

Considerable practice is necessary to accomplish the process with ease, and prevent melting the pieces to be united. The foregoing directions are intended to apply to the soldering of gold, as it is with this metal that the dentist has particularly to do; they will, however, be found applicable to the soldering of platina and silver. See Mounting Porcelain Teeth upon a Metallic Base.

For throwing the flame upon the work, the common blow-pipe is most frequently employed, but Parmly's and other self-acting blow-pipes may be used with greater advantage.

SOLDANEL'LA. Convolvulus soldanella.

SOLE. The under surface of the foot.

SOLEN. A tube or canal. Also, a cradle for a fractured limb.

SOLENA'RIUM. From σωλην, a canal. A catheter.

SOLE'US. Gastrocnemius internus. A muscle situated at the posterior part of the leg.

SOLID. *Solidus*. A body whose particles are so united by cohesive attraction as to require some degree of force to separate them. In *Anatomy*, the bones, muscles, ligaments, membranes, nerves, vessels, cartilages, &c.

SOLIDA'GO. The name of a genus of plants.

SOLIDAGO ODORA. Sweet-scented golden rod.

SOLIDAGO VIRGAU'REA. Golden rod.

SOL'IDISM. The doctrine which ascribes all diseases to alterations in the solid parts of the body.

SOLIUM. A species of tape-worm.

SOLOMON'S SEAL. Convallaria polygonatum.

SOLUBIL'ITY. *Solubilitas;* from *solvere, solutum,* to disolve. Capable of dissolving in a menstruum.

SOLUM. The sole.

SOLU'TIO. A solution.

SOLUTIO ARSENICALIS. Liquor arsenicalis.

SOLUTIO CALCIS. Liquor calcis.

SOLUTIO POTASSII IODIDI IODURETA. Liquor iodini compositus.

SOLUTIO SULPHA'TIS CUPRI COMPOS'ITA. *Aqua cupri vitriolati composita.*—Compound solution of sulphate of copper.

SOLU'TION. *Solutio.* In *Chemistry,* an operation which consists in dissolving a solid, in a menstruum. Also, the product of such operation. In *Surgery,* the separation of parts previously united, which is called a *solution of continuity.*

SOL'UTIVE. *Solutivus;* from *solvo,* to loosen. A laxative.

SOL'VENT. From *solvere,* to dissolve. A menstruum. Also, medicines supposed to possess the property of dissolving or removing obstructions of extraneous substances.

SOMA. The body.

SOMAT'IC. *Somaticus;* from σωμα, the body. That which relates to, or concerns, the body.

SOMATOL'OGY. *Somatologia;* from σωμα, the body, and λογος, a discourse. A treatise on the human body. Anatomy.

SOMNAM'BULISM. *Somnambulatio;* from *somnus,* sleep, and *ambulare,* to walk. Sleep-walking.

SOMNAM'BULIST. A sleep-walker.

SOMNIF'EROUS. *Somniferus;* from *somnus,* sleep, and *fero,* to bring. That which induces sleep.

SOMNILO'QUIUM. *Somniloquismus;* from *somnus,* sleep, and *liquor,* I speak. Talking in one's sleep.

SOM'NIUM. Dreaming.

SOM'NOLENCY. *Somnolentia.*—Sleepiness; often a symptom of disease.

SOM'NUS. Sleep.

SON'CHUS. The name of a genus of plants.

SONCHUS ARVEN'SIS. The greater hawkweed.

SONCHUS OLERACEUS. The sow-thistle.

SOOT. Fuligo.

SOOT, WOOD. Fuligo ligni.

SOPHISTICA'TION. *Sophisticatio.* Adulteration; counterfeiting; falsification.

SOPHO'RA. The name of a genus of plants.

SOPHORA HEPTAPHYLLA. A shrub, the roots and leaves of which are called *anticholerica.*

SOPHORA TINCTORIA. *Baptisia tinctoria.* Wild indigo; indigo weed; horse-fly weed; yellow broom; yellow indigo.

SOPHRONISTE'RES. The dentes sapientiæ.

SO'PIENS. Soporific.

SOPOR. A profound sleep, from which the person can only be roused with difficulty. It occurs in many cerebral diseases.

SOPORIF'IC. Somniferous.

SORA. The nettle-rash.

SORBEFA'CIENT. *Sorbefaciens;* from *sorbere,* to suck in, and *facere,* to make. A remedy that promotes absorption.

SORBUS. The name of a genus of plants.

SORBUS ACUPA'RIA. The wild service tree.

SORBUS DOMES'TICA. The cultivated service tree. It has an astringent fruit, which is sometimes used in diarrhea.

SOR'DES. The fetid excrementi-

tious matter which forms on the teeth during fever. Also, dirty sanies, discharged from ulcers.

SORE. An ulcer or excoriation.

Sore, Bay. An endemic disease, at the Bay of Honduras, thought by Dr. Mosely to be true cancer.

Sore Mouth. Stomatitis.

Sore Mouth, Gangrenous. Cancrum oris.

Sore Throat. Cynanche.

Sore Throat, Clergyman's. Follicular pharyngitis.

Sore Throat, Ulcerous. Cynanche maligna.

SORE'NESS. Painful uneasiness or tenderness of a part when touched. It is a symptom of inflammation.

SOR'REL. Rumex acetosa.

Sorrel, French. Rumex scutatus.

Sorrel-Tree. Andromeda arborea.

Sorrel Wood. Oxalis acetosella.

SOUND. A solid metallic instrument, shaped like a catheter, used by surgeons for the purpose of ascertaining whether there be a stone in the bladder.

SOUND'ING. Searching.

SOUR DOCK. Rumex acetosa.

SOUTHERN WOOD. Artemisia abrotanum.

SOW-BREAD. Cyclamen europæum.

SPAG'IRISTS. An ancient sect of physicians, who pretended to account for the changes that occur in health and disease upon chemical principles.

SPAGYRIA. Chemistry.

SPAIN, PELLITORY OF. Anthemis pyrethrum.

SPANHÆ'MIA. From σπανος, poor, and αιμα, blood. Poverty of the blood, from a deficiency of fibrin and red corpuscules.

SPANISH FLY. Cantharis.

SPARADRA'PUM. Adhesive plaster spread on silk, linen, cotton or paper.

SPARGANO'SIS. From σπαργαω, to swell. A swelling. Also, a milk abscess.

SPAR'SUS. Irregularly scattered; dispersed.

SPAR'TIUM. The name of a genus of plants.

Spartium Jun'ceum. Spanish broom.

Spartium Scopa'rium. The common broom. The tops and leaves have diuretic properties.

SPASM. *Spasmus;* from σπαω, I draw. An involuntary muscular contraction. Spasms are distinguished into *tonic*, which consists in complete rigidity of the muscles, as in lock-jaw, and *clonic*, which consists in alternate contractions and relaxations, as in convulsions.

SPASMA. From σπαω, I draw. Voluntary straining, and energetic contraction, or extension of the muscles, as in running, riding, or bearing heavy burdens.

SPASMI. Spasmodic diseases. An order in the class *neurosis* of Dr. Cullen, characterized by a morbid contraction of the muscular fibres.

SPASMOD'IC. *Spasmodicus; spasmoticus.* Relating to a spasm or convulsion.

Spasmodic Croup. Laryngismus stridulus.

SPASMOL'OGY. *Spasmologia;*—from σπασμος, spasm, and λογος, a discourse. A treatise on convulsions.

SPASMOT'ICUS. Spasmodic.

SPAS'MUS. A spasm; a convulsion.

Spasmus Cynicus. Risus caninus; risus sardonicus.

SPASTIC. *Spasticus.* Spasmodic.

SPAT'ULA. Diminutive of *spatha*, a broad instrument. An instrument like a knife, used for spreading plasters, &c.

SPATULATE. Shaped like a spatula.

SPEARWORT. Ranunculus flammula.

SPE'CIES. A group of such individuals as have an essential identity resulting from their ultimate constitution or nature. Individuals, animals, plants,

and minerals agreeing in their appearance and composition. When species differ in circumstances from accident, they are termed *varieties*. The circumstances common to one or more species constitute a division or genus. Species is also an old pharmaceutical term for powders.

SPECIF'IC. *Specificus*. A medicine that cures some diseases upon a principle peculiar to itself, and not common to two or more. Also, a remedy that infallibly cures a particular disease. The term is applied, too, to a medicine which acts on some particular organ more than on others.

Specific Gravity. See Gravity, specific.

SPECIL'LUM. From *specio*, I examine. A probe.

SPECTA'CLES. From *spectare*, to behold. An optical apparatus, consisting of two lenses, fixed in a metallic frame adapted to the eyes, and used to assist the sight.

SPEC'TRUM. An optical illusion; a spectre. Also, an elongated figure of the seven prismatic colors, formed by a transparent prism.

SPEC'ULUM. From *specio*, I see. A mirror. Also, an instrument for dilating cavities to facilitate their examination.

Speculum Ani. An instrument for dilating the anus, while an operation is being performed on the parts within.

Speculum Metal. An alloy for metallic mirrors, composed of two parts copper and one of tin.

Speculum Oculi. An instrument for keeping the eyelids open, and preventing the eye from moving.

Speculum Oris. An instrument for distending the mouth.

Speculum Oris, Elliot's. An instrument for distending the cheeks during the removal of wax impressions from the mouth.

Speculum Vaginæ. An instrument for dilating the vagina.

Speculum Veneris. Yarrow.

SPEECH. Articulated voice.

SPEECHLESSNESS. Aphonia; mutitas.

SPEEDWELL. Veronica officinalis.

Speedwell, Female. Antirrhinum elatine.

SPEL'TER. *Speltre; speltrum*. Natural, impure zinc, which contains copper, iron, lead, manganese, plumbago, and a little arsenic.

SPENCER'S DENTAL DRILL. An instrument invented by Mr. K. Spencer, dentist, of Georgia, for removing caries from the teeth. The drill is moved by an endless chain, enclosed in an octagonal steel case, worked with a handle and pistern.

SPERM. *Sperma*; from σπειρω, I sow. Spermatic fluid. Seed. Semen.

SPERMACE'TI. Cetaceum.

SPERMATHE'CA. From σπερμα, seed, and θηκη, sheath. A receptacle attached to the oviducts of insects.

SPERMAT'IC. *Spermaticus*; from σπερμα, seed. Belonging, or relating, to the testicles and ovary.

Spermatic Arteries. Two arteries, one on each side, given off, most commonly, by the aorta, though sometimes by the renal arteries, and distributed, in man, to the spermatic chord, testicle and epididymis, and in the female, to the ovarium, fallopian tube, and round ligament.

Spermatic Chord. The vascular and nervous chord by which the testicle is suspended.

Spermatic Plexus. A nervous plexus on each side of the body, formed by filaments from the renal plexus.

Spermatic Veins. The veins which accompany the spermatic arteries.

SPERMATOCE'LE. From σπερμα, seed, and κηλη, a tumor. A swelling of the testicle.

SPERMATO'PHORA. From σπερμα, seed, and φερω, I bear. The sheaths in the cephalopods which convey the semen or sperm.

SPERMATORRHŒ'A. From

σπερμα, sperm, and ρεω, I flow. An involuntary emission of semen.

SPERMATOZO'A. From σπερμα, sperm, and ζωον, animal. Spermatic animalcules. Animalcules found in the semen.

SPERM'ODERM. The external covering of a seed.

SPHACELIS'MUS. Gangrene.—Also, an inflammation of the brain.

SPHAC'ELUS. From σφαχω, to destroy. The disorganized portion thrown off in mortification. Complete mortification.

SPHÆNOIDES. Sphenoides.

SPHÆRAN'THUS INDICUS.—The *adaca*, a plant of Malabar.

SPHÆRO'COCCUS CRISPUS.—The fucus crispus.

SPHAGE. The throat.

SPHENO-MAXILLARY. Relating to the sphenoid and maxillary bones.

Spheno-Maxillary Fissure. The inferior orbitar fissure. Foramen lacerum inferius.

Spheno-Maxillary Fossa. A depression at the union of the spheno-maxillary and pterygo-maxillary fissures.

SPHENO-PALATINE. Relating to the sphenoid and palate bones.

Spheno-Palatine Artery. The termination of the internal maxillary artery, which enters the back part of the nose through the spheno-palatine foramen, to be distributed upon the pituitary membrane.

Spheno-Palatine Foramen. A foramen formed by the vertical portion of the os palati, and sphenoid bone, establishing a communication between the nasal fossæ and the zygomatic fossa.

Spheno-Palatine Ganglion. A small ganglion situated without the spheno-palatine foramen, in the pterygo-maxillary fissure.

Spheno-Palatine Nerves. The lateral nasal nerves, which arise from the ganglion of Meckel, and enter the nose through the spheno-palatine foramen, to be distributed to the outer and inner parietes of the nasal fossæ.

SPHENO-PARIETAL. Belonging, or relating, to the sphenoid and parietal bones.

SPHENO-STAPHYLINUS. The levator palati muscle.

SPHENO-TEMPORAL. Belonging, or relating, to the sphenoid and temporal bones.

SPHE'NOID. *Sphenoides;* from σφην, a wedge, and ειδος, resemblance. Wedge-like; applied to a bone of the cranium.

Sphenoid-Bone. *Sphenoides os.*—A bone situated in the middle of the base of the cranium, extending underneath from one temple to the other, and wedged in, as it were, amid the other bones.

SPHENOI'DAL. *Sphenoidalis.* Belonging, or relating, to the sphenoid bone.

Sphenoidal Spine. A projecting crista at the lower surface of the sphenoid bone, which articulates with the vomer.

SPHINC'TER. From σφιγγω, I constrict. A name given to certain muscles, the office of which is, to close openings around which they are situated.

Sphincter Ani. A muscle situated around the anus.

Sphincter Ani Internus. The circular fibres of the muscular coat of the rectum at its extremity.

Sphincter Gulæ. The superior constrictor pharyngis.

Sphincter Labiorum. The orbicularis oris.

Sphincter Oculi. The obicularis palpebrarum.

Sphincter Oris. The orbicularis oris.

Sphincter Vaginæ. A muscle situated on the side of the vagina, near its external orifice, opposite the nymphæ, and covering the corpus cavernosum.

Sphincter Visicæ. A name given

by some anatomists to a few fibres which surround the neck of the bladder.

SPHYGMOL'OGY. *Sphygmologia;* from σφυγμος, the pulse, and λογος, a discourse. A treatise on the pulse.

SPHYG'MOS. From σφυξεω, to leap or rebound. The pulse.

SPHYXIS. Pulsation.

SPICA. A spike. In *Botany*, a species of inflorescence in which all the flowers are sessile along a common axis. In *Surgery*, a spiral bandage, the turns of which cross each other like the letter V.

Spica Brevis. Alopecuris pratensis.

Spica Celtica. Valeriana celtica.

Spica Fœmina. Common lavender.

Spica Indica. Nardus Indica.

Spica Inguinalis. A bandage for inguinal ruptures.

Spica Duplex. A double spica or spiral bandage.

Spica Mas. Broad-leaved lavender.

Spica Nardi. Nardus Indica.

Spica Simplex. A common spica bandage.

SPICE-WOOD. The laurus benzoin.

SPICES. Agreeable, warm aromatic drugs, such as nutmeg, cinnamon, &c.

SPIC'ULA. In *Pathology*, pointed pieces of bone. In *Botany*, applied to grasses.

SPIGEL'IA. The Indian pink.—Also, the name of a genus of plants.

Spigelia Marilan'dica. The perennial worm-grass, or Indian pink.

SPILAN'THUS. The name of a genus of plants.

Spilanthus Acmel'la. The balm-leaved spilanthus.

Spilanthus Olera'ceus. The spear-leaved spilanthus.

SPILO'MA. A spot or stain. A variety of *nævus*.

SPI'LUS. A spot or discoloration of the skin.

SPI'NA. A thorn. In *Anatomy*, a process on the surface of a bone.

Spina Acida. The barberry.

Spina Ægyptiaca. Acacia vera.

Spina Bifida. A congenital malformation or defect of the spinal column.

Spina Cervina. Buckthorn.

Spina Hirci. Astragalus tragacantha.

Spina Ventosa. A term of rather indefinite signification. By some it is defined to be a tumor arising from an internal caries of bone; by others, a disease of the osseous system, in which the bone exhibits a distended appearance.

Spina Ventosa of the Teeth.—Among the diseases which attack the teeth, Mr. Fox mentions spina ventosa as one, which he thus describes: "The seat of the malady is in the cavity of the tooth; the vessels ramifying on its membrane, acquire a diseased action, by which the membrane becomes thickened, absorption of some of the internal parts of the tooth takes place, and the opening, at the extremity of the fang, also, becomes enlarged. This disease of the membrane is attended with the formation of matter, discharging itself at the point of the fang, into the alveolar cavity, which, being rendered more porous by the process of absorption, affords an easy exit. During the progress of the disease, the gum, covering the alveolar process, becomes inflamed, and acquires a spongy texture; the matter, passing from the socket, makes its escape into the mouth by several openings through the gum, which is thus kept in a constant state of disease."

It will be perceived by the foregoing, that there is little analogy between spina ventosa, according to the common acceptation of the term, and the disease described by Mr. Fox. The latter is nothing more than alveolar abscess, arising from inflammation and suppuration of the lining membrane. But this affection, simply, bears no resemblance to spina ventosa. If the tooth be previously or simultaneously attacked by exostosis, and the natural

canal enlarged by the corrosive action of the contained matter, the disease might, perhaps, be regarded, as identical with spina ventosa, as it occurs in other bones.

The enlargement of the opening at the extremity of the fang, is caused by the action of the confined matter, and not by the absorbents, as Mr. F. supposes, for before this enlargement takes place, the lining membrane is destroyed, and, consequently, the vitality of the internal parietes of the root, and hence, cannot be exposed to the action of the absorbents.

The proper curative indication in a case of this sort, consists in the prompt removal of the tooth.

SPINA'CIA. The name of a genus of plants.

Spinacia Olera'cea. Spinach.

SPI'NAL. *Spinalis;* from *spina*, the spine. Belonging, or relating, to the spinal column.

Spinal Arteries. Two arteries descending, one on the anterior and one on the posterior surface of the spinal chord.

Spinal Chord. *Medulla spinalis.* The spinal marrow, which is a continuation of the medulla oblongata.

Spinal Diseases. The diseases which affect the spinal chord and its membranes.

Spinal Irritation. A term applied to sub-inflammatory affections of the spinal chord and its membranes.

Spinal Marrow. The spinal chord.

Spinal Nerve. The accessory of the pneumogastric, or accessory nerve of Willis.

SPINALIS CERVICIS. Semi-spinalis colli.

Spinalis Colli. Semi-spinalis colli.

Spinalis Dorsi. A muscle situated on the lateral surfaces of the spinous processes of the back, and the inner side of the longissimus dorsi.

SPINE. The vertebral column.

SPINES'CENT. *Spinescens.* Becoming hard and thorny.

SPIN'NARET. The articulated tubes of spiders, which they employ in making their webs.

SPINOUS. *Spinosus.* Having the shape of, or beset with, spines or thorns.

Spinous Processes of the Vertebræ. These processes are situated one on the back part of each vertebra.

SPIRAC'ULA. *Spiracules;* from *spiro*, I breathe. The breathing pores of insects. Applied, also, to the pores of the skin.

SPIRÆ'A. The spiræa tomentosa. Also, the name of a genus of plants.

Spiræa Africana. Diosma crenata.

Spiræa Filipendula. The officinal dropwort.

Spiræa Tomen'tosa. Hardback; red meadow-sweet.

Spiræa Trifoliata. Gillenia trifoliata.

Spiræa Ulmaria. Meadow-sweet. Queen of the meadows.

SPI'RAL. *Spiralis;* from *spira*, a spire. Winding round a cylinder or other round body, in a circular form, and at the same time rising or advancing forward; winding like a screw.

Spiral Bandage. The common bandage or roller, which is wound spirally round a limb.

Spiral Springs. In *Dental Prostheses*, the coiled wires employed for the retention of artificial teeth in the mouth. This description of spring was formerly always used in the application of a substitute for the teeth of both jaws, but the perfection to which the atmospheric or suction principle of applying bases for artificial teeth has, within the last few years, been brought, renders their employment almost altogether unnecessary. But when used, they should be made of wire no larger than is absolutely necessary to give to the springs the power required to keep the pieces in place.

The simplest method of winding the wire, is to secure it between two blocks of wood, held between the jaws of a

small bench-vice. Then, the upper end of the wire, in connection with a small spindle or steel-wire, the size of a small knitting-needle, six or eight inches in length, is grasped by a hand-vice or pair of sliding tongs; the spindle resting on the blocks of wood is made to revolve by turning the hand-vice, or sliding-tongs, according as the one or the other may be used. In this way, the wire is wound firmly and closely round the steel rod or spindle.

A machine has recently been invented by Drs. Howcott and Davidson, of Memphis, Tenn., by means of which, the wire may be wound with much greater uniformity and accuracy, than in the manner as above described.

SPIRATIO. Respiration.

SPIRIT. *Spiritus;* from *spirare,* to exhale. This term was formerly applied to all volatile substances obtained by distillation. They were formerly distinguished into *inflammable* or *ardent spirits, acid spirits,* and *alkaline spirits,* but at present, the term is restricted to alcoholic liquors, and ether.

Spirit, Rectified. Alcohol.

Spirit of Alum. The acid liquid distilled from alum.

Spirit of Salt. Hydrochloric acid.

Spirit of Tin. Perchloride of tin.

Spirit of Turpentine. Oil of turpentine.

Spirit of Wine and Camphor.—Spiritus camphoræ.

SPIRITUS. Spirit. Also, breath.

Spiritus Ætheris Aromaticus.—Aromatic spirit of ether.

Spiritus Ætheris Nit'rici. Sweet spirit of nitre. Spirit of nitric ether.

Spiritus Ætheris Sulphu'rici.—Spirit of sulphuric ether. Sweet spirit of vitriol.

Spiritus Ætheris Sulphurici Compos'itus. Compound spirit of sulphuric ether.

Spiritus Ammo'niæ. Spirit of ammonia.

Spiritus Ammoniæ Aromat'icus.—Aromatic spirit of ammonia.

Spiritus Ammoniæ Fœ'tidus. Fetid spirit of ammonia.

Spiritus Ammoniæ Succina'tus.—Succinated spirit of ammonia.

Spiritus Anisi. Spirit of aniseed.

Spiritus Armora'ciæ Compos'itus. Compound spirit of horseradish.

Spiritus Camphoræ. Spirit of camphor.

Spiritus Carui. Spirit of caraway.

Spiritus Cinnamomi. Spirit of cinnamon.

Spiritus Colchici Ammonia'tus.—Ammoniated spirit of colchicum.

Spiritus Cornu Cervi. Subcarbonate of ammonia.

Spiritus Frumenti. Spirits distilled from rye and corn, as whiskey, &c.

Spiritus Gallicus. French brandy.

Spiritus Juniperi Compositus.—Compound spirit of juniper.

Spiritus Lavendulæ. Spirit of lavender.

Spiritus Lavendulæ Compositus. Compound spirit of lavender.

Spiritus Menthæ Piperitæ. Spirit of peppermint.

Spiritus Menthæ Viridis. Spirit of spearmint.

Spiritus Myris'ticæ. Spirit of nutmeg.

Spiritus Nitri Simplex. Dilute nitrous acid.

Spiritus Pimen'tæ. Spirit of pimenta.

Spiritus Pulegii. Spirit of pennyroyal.

Spiritus Rectifica'tus Alcohol. Spirit of wine.

Spiritus Rector. The aroma of a plant.

Spiritus Rosmarini. Spirit of rosemary.

Spiritus Salis Ammoniaci Causticus. Aqua ammoniæ.

Spiritus Tenuior. Dilute alcohol.

Spiritus Vini Gallici. French brandy.

Spiritus Vitrioli. Sulphuric acid.

SPIROID CANAL. The aquæductus Fallopii.

SPIROP'TERA HOMINIS. A small worm sometimes found in the urine and kidneys.

SPIROM'ETER. From *spiro*, I breathe, and μετρον, a measure. An instrument for measuring the air inhaled.

SPISSAN'TIA. Incrassantia; that which inspissates or thickens.

SPIT?. Sputum.

SPITTING OF BLOOD. Hæmoptysis.

SPITTLE. Saliva.

SPITTOON', DENTIST'S. A vase or other vessel used by the dentist to receive the saliva or blood which comes from the mouth of his patient while he is operating.

SPLANCHNA. The entrails.

SPLANCH'NIC. *Splanchnicus;*—from σπλαγχνον, an entrail. Relating to the entrails.

Splanchnic Cavities. The cavities of the abdomen, chest and head.

Splanchnic Nerves. These are two in number, the *greater* and *lesser;* the first arises from the sixth, seventh, eighth, ninth, and sometimes the tenth thoracic ganglia; the second from the tenth and eleventh thoracic ganglia.

SPLANCH'NICA. The second order of diseases, class *cœliaca* of Dr. Good, comprehending those which affect the abdominal organs, without primary inflammation.

SPLANCHNOG'RAPHY. *Splanchnographia;* from σπλαγχνον, a viscus, and γραφω, to describe. The anatomy of the viscera.

SPLANCHNOL'OGY. *Splanchnologia;* from σπλαγχνον, a viscus, and λογος, a discourse. A treatise on the viscera.

SPLANCH'NON. An intestine, viscus or entrail.

SPLANCHNOPA'THY. *Splanchnopathia;* from σπλαγχνον, a viscus, and παθος, disease. Disease of the intestines.

SPLANCHNOT'OMY. *Splanchnotomia;* from σπλαγχνον, a viscus, and τεμνω, I cut. Dissection of the viscera.

SPLEEN. Σπλην. A spongy viscus, situated below the diaphragm in the left hypochondrium, between the eleventh and twelfth false ribs. Also, hypochondriasis.

SPLEENWORT. Asplenium ceterach.

SPLENAL'GIA. From σπλην, the spleen, and αλγος, pain. Pain in the spleen.

SPLENEMPHRAX'IS. From σπλην, the spleen, and εμφρασσω, I obstruct. Obstruction of the spleen.

SPLEN'ETIC. *Spleneticus.* Belonging, or relating, to the spleen.

SPLEN'IC. Relating to the spleen.

Splenic Artery. An artery distributed to the spleen.

Splenic Plexus. A nervous network, accompanying the splenic artery.

Splenic Vein. A vein having its origin in the spleen, and accompanying the splenic artery.

SPLENI'TIS. From σπλην, the spleen, and *itis*, a terminal denoting inflammation. Inflammation of the spleen.

SPLE'NIUM. Spleenwort. Also, a compress.

SPLE'NIUS. An oblong, broad, flat muscle, situated at the back part of the neck and upper part of the back.

SPLENIZA'TION. A term applied to a morbid change of the lung, in which its tissue resembles that of the spleen.

SPLENOCE'LE. Hernia of the spleen.

SPLENOG'RAPHY. *Splenographia;* from σπλην, the spleen, and γραφω, a description. The anatomy of the spleen.

SPLENOHÆ'MIA. From σπλην, the spleen, and αιμα, blood. Congestion of the spleen.

SPLENOL'OGY. *Splenologia;* from σπλην, the spleen, and λογος, a discourse. A treatise on the spleen.

SPLENON'CUS. From σπλην, the

spleen, and ογκος, a tumor. Tumefaction of the spleen. Ague cake.

SPLENOT'OMY. *Splenotomia;*—from σπλην, the spleen, and τεμνω, I cut. Dissection of the spleen.

SPLINT. A long piece of wood, pasteboard, sheet iron, or leather, employed in the treatment of fractures, to keep the broken extremities of bones from moving.

Splint-Bone. The fibula.

Splint-Cloth. A bandage, consisting of a central portion, with six or eight tails.

SPLINT'ER. A term applied, in *Surgery*, to a fragment that separates from a fractured or diseased bone. Also, to a small portion of wood which has entered the skin.

SPLITTING INSTRUMENT, ELLIOT'S IMPROVED. An improvement consisting of bringing the cutting edges of the instrument together at the point instead of above, so that the edges form the letter V. By applying the force as deep between the roots as possible a perpendicular split is produced.

SPOD'IUM. An old preparation of zinc and other substances.

Spodium Abaisir. Metallic oxyds, and a preparation of white lead and oil.

Spodium Album. Bone earth.

Spodium Arabum. Burned ivory.

Spodium Græcorum. The white dung of dogs.

SPONDYLAL'GIA. From σπονδυλος, a vertebra, ond αλγος, pain. Pain in the back.

SPONDYL'IUM. Cow-parsnip.—All-heal.

SPON'DYLUS. A vertebra.

SPON'GIA. Sponge. The name of a genus of marine zoophytes.

Spongia Præparata. Prepared sponge.

Spongia Usta. Burned sponge.

SPON'GIOLE. *Spongiolum;* from σπογγιον, a sponge. A spongelet, or the soft succulent extremity of the capillary roots in plants, which absorbs or sucks up fluid.

SPONGOID. Spongy; resembling sponge.

SPONGOS. The tonsil.

SPONG'Y. *Spongiosus.* A term applied to textures resembling sponge.

SPONTA'NEOUS. From *sponte*, voluntarily. That which occurs of itself, or without apparent external agency or cause.

SPOONER, JOHN R. John R. Spooner, late surgeon dentist of Montreal, was born in Troy, N. Y., 1792, and after having received a liberal education, commenced the study of medicine, and graduated at the Vermont Academy of Medicine. His attention was soon after turned to dental surgery, and after having obtained all the information that was at that time available upon the subject, he commenced practice in Utica, New York; from thence he went to Buffalo, and soon after to Montreal, where he soon acquired a justly deserved high reputation as a skilful and scientific practitioner. This he enjoyed, until he was compelled by ill health to seek a more genial clime.

His health having failed him, he went to the island of Barbadoes, where, in March, 1839, he died of pulmonary consumption.

Dr. J. R. Spooner was the first person to employ arsenious acid to destroy the nerves of teeth; his object, at first, in using it, was to find a substance that would not act chemically upon the teeth. Dr. Spooner was devotedly attached to his profession, and contributed much to the elevation of its dignity.

SPOONER, S. Author of Guide to Sound Teeth, or a Popular Treatise on the Teeth. New York, 1836. This is one of the best popular treatises upon the teeth extant.

SPOONWOOD. Kalmia latifolia.

SPORAD'IC. *Sporadicus;* from σπειρω, to sow. A term applied to diseases which occur in every season and locality, from accidental causes.

SPORE. *Sporule.* The reproduc-

tive corpuscles contained in the urn of the mosses, and all the cryptogamia.

SPORID'IUM. The reproductive body of algaceous plants.

SPORULE. A spore.

SPRAIN. Subluxation; a straining or rupturing of the soft parts surrounding a joint.

SPRAT. Clupea sprattus.

SPRUCE. A species of fir; the pinus abies. Also, a drink prepared from spruce fir.

SPUMA. Froth.

SPUMO'SUS. Frothy.

SPUNK. The agaric of the oak; touchwood boletus.

SPURGE. See Euphorbia.

Spurge-Flax Daphne gnidium.

Spurge-Laurel. Daphne laureola.

Spurge-Olive. Daphne mezereum.

SPURRED RYE. Secale cornutum.

SPU'TUM. *Sputamen;* from *sputo*, to spit. The secretions ejected from the mouth by the act of spitting. Also, the expectorated matter which comes from within the chest.

SQUA'MA. A scale.

SQUAMÆ. Scaly diseases. See *Lepra*, *Psoriasis*, *Ptyriasis*, and *Ichthyosis*.

SQUA'MOUS. *Squamosus;* from *squama*, a scale. Scaly.

Squamous Suture. The suture which unites the squamous portion of the temporal bone with the parietal.

SQUARRO'SE. *Squarrosus.* Rough, scaly.

SQUILL. *Squilla.* Scilla maritima.

SQUILLS, VINEGAR OF. Acetum scillæ.

SQUIN'ANCY. Cynanche tonsillaris.

SQUINT'ING. Strabismus.

STACHYS. The name of a genus of plants.

Stachys Fœtida. Ballota nigra.

Stachys Palustris. Clown's woundwort.

STAFF. A grooved instrument, employed in the operation of lithotomy to guide the knife.

STAGE. The period or degree of a disease, as the cold, hot, and sweating stages of an intermittent.

STAG'MA. From σταζω, I distil. Any distilled liquor.

STAGNA'TION. *Stagnatio;* from *stagnare*, to form a pond. A congestion, or retardation of the fluids in any part of the body.

STAHLIANS. The followers of Stahl.

STALAGMI'TIS. The name of a genus of plants.

Stalagmitis Cambogioi'des. A species of stalagmitis which yields a kind of gamboge.

STALAGMOS. Distillation.

STAL'TICUS. From στελλω, to contract. A term formerly applied to medicines which were supposed to have the power of healing.

STA'MEN. The male organ of fructification in plants, consisting of the anther and filament.

STAM'INA. A term applied in *Physiology*, to the degree of strength and vigor in the constitution.

STAM'MERING. Stuttering; impediment of speech; hesitation in the utterance of words.

STAN'GOS. Tin.

STANNI MURIAS. Muriate of tin.

Stanni Pulvis. Tin finely divided.

STAN'NIC ACID. Peroxyd of tin.

STANNIOLUM. Tinfoil.

STAN'NUM. Tin.

Stannum Foliatum. Tinfoil.

STAPE'DIUS. A muscle of the internal ear.

STAPES. A stirrup; applied to a bone of the internal ear.

STAPHISAGRIA. Stavesacre.

STAPHYLÆMATO'MA. A tumor of the uvula formed by an effusion of blood.

STAPHYLE. The uvula.

STAPHYLI'NUS EXTERNUS.—A muscle of the palate.

STAPHYLI'TIS. Inflammation of the uvula.

STAPHYLO-PHARYNGEUS.—The palato-pharyngeus.

STAPHYLŒDE'MA. Relaxation of the uvula, either from inflammation or infiltration.

STAPHYLO'MA. From σταφυλη, a grape. A name given to various tumors of the anterior surface of the ball of the eye.

STAPHYLOMA CORNEÆ. *Staphyloma conicum.* A disease characterized by opacity and projection of the cornea.

STAPHYLOMA OF THE IRIS. Prolapsus iridis. Hernia of the iris.

STAPHYLOMA SCLEROTICÆ. A projection of a portion of the eye on the sclerotic coat.

STAPHYLON'CUS. Tumefaction of the uvula.

STAPHYLOPLAS'TY. From σταφυλη, the uvula, and πλασσω, I form. An operation for replacing the soft palate, or any portion of it, when lost. When there only exists an opening in the palate or velum, this operation may often be performed with complete success, but when the loss of substance is very considerable, the result will be more doubtful. Dr. Pancoast, in his operative surgery, thus describes the operation for closing a hole near the centre of the hard palate, which formed a communication between the mouth and nose, as performed by himself.

"Two irregular quadrilateral flaps were raised from the mucous covering of the side of the roof of the mouth. These were reversed upon the orifice with their mucous surface upwards, attached to each other by two points of interrupted suture, and forced firmly up against the margin of the bony orifice, which had previously been made raw with the knife by a *curved* hare-lip pin, the convexity of which presented upwards and corresponded with that of the palatine arch. The wrapping of the ligature round the pin carried the flaps firmly up against the orifice, so as to facilitate their adhesion to the raw margin of the latter. The mucous membrane of the sides of the flaps was partially shaved with a knife before they were reflected upwards."

STAPHYLOR'APHY. From σταφυλη, the uvula, and ραφη, a suture. The operation for uniting a cleft palate, which consists in paring the edges, passing ligatures through and bringing them together.

The idea of this operation was first conceived by an ingenious French dentist, by the name of LE MONNIER, who attempted, and with success, to perform it, as early as the year 1764. But for more than half a century afterwards, it does not seem to have attracted any attention, or to have been generally known to the medical profession. In 1819, however, M. ROUX, a celebrated French surgeon, and author of an able memoir upon the subject, published in 1825, performed the operation upon Dr. Stephens a young American physician.* In 1820, it was performed for the first time in the United States, by DR. J. C. WARREN, of Boston, and in 1822 in England, by MR. ALCOCK.† Now, it is classed among the regular operations of surgery.

As the success of the operation depends in a great degree upon the consent of the patient, he should, as a general rule, have attained a sufficient age to enable him to appreciate its importance, before it is performed. Dr. Hullihen, however, a scientific dentist of Wheeling, Va. says, he has performed the operation with success on a child of nine

* We are informed, however, by Velpeau, in his *Elements of Operative Surgery*, p. 428, that M. Colombe performed the operation on a dead subject in 1813, and in 1815 endeavored to prevail on a patient to permit him to repeat it, but without success. In 1817, too, M. Græfe published in Hufeland's Journal, some details concerning it, but the subject elicited no interest until M. Roux performed the operation in 1819.

† Vide *Dr. Reese's Appendix to Cooper's Surgical Dictionary.*

years of age, but the author is of the opinion, that it is generally better to defer it until after the fifteenth or sixteenth year, and the natural excitability of the parts should be, previously, as much lessened as possible, by frequently touching and moving them about with the finger. This should be done several times a day for, at least, two weeks before the operation is attempted, and during this time, the patient should be restricted to a spare diet.

The operation of staphyloraphy, or velosynthesis, consists in removing the margins of the divided velum with a pair of curved scissors, as recommended by M. Roux, or a double-edged knife, and holding the raw edges in contact with each other until a union takes place.

A multiplicity of ingeniously contrived instruments have been invented for the performance of the operation, but all that are really necessary, are, a sharp hook, a double-edged knife, short curved needles, a needle-holder, (*porte-aiguille*,) strong waxed ligatures, a pair of long-handled curved forceps, and scissors; other instruments, may, in some cases, be required. In addition to the above, water, towels, and one or more assistants, will be needed.

Thus prepared, the patient, after having been previously submitted to the necessary preparatory treatment, should be placed in a chair facing a good light, with his head firmly supported by an assistant, and his mouth open, the operation may be commenced, by inserting the hook into the margin of the velum near its most dependent part, on the left side of the fissure. This instrument, held by an assistant, should be depressed so as to make the margin slightly tense. The point of the double-edged knife should now be placed below the most dependent part of the velum, a little to the left of where the hook is inserted, and carried from below upwards, until it has reached the angle of the fissure, removing about one line of the margin. This operation may be repeated on the opposite side of the fissure, or by changing the knife from the right to the left hand, and directing the assistant holding the hook to pass his hand "across, and a little above, the face of the patient," in the manner as described by Dr. Mütter, so as to keep up a constant traction upon the strip of mucous membrane removed by the first cut, the right margin of the fissure may be made tense, and the knife carried from above downwards, completing, by a single incision, the whole of this part of the operation.

Dr. S. P. Hullihen, an eminent dentist of Wheeling, Va., who has performed the operation eleven times with success, has invented a bistoury for pairing the edges, which possesses decided advantages over the common double-edged knife. It is composed of two parts, which open like scissors, but when closed, forms a double-edge knife or bistoury. The manner of using it, is as follows: after first seizing the cleft edge of the velum at the base of the uvula, with a pair of curved forceps, and putting it on the stretch, the bistoury, with its back towards and against the palate bone, should be pushed through the velum near its edge; then, by opening it, the edge will be paired off in the most even and perfect manner possible.

Further procedure should be suspended until the hemorrhage, though seldom very great, shall have partially subsided. A needle, armed with a well waxed ligature, and held in a pair of suitable forceps, should be passed from before backwards through the most dependent part of the left margin, about three lines from the edge. As soon as it is seen on the opposite side, it should be grasped by the assistant with a pair of long-handled forceps, and as soon as the hold of the porte-aiguille, is relaxed, drawn through, replaced in the latter, and passed through

from behind forwards, the right margin of the velum opposite to the ligature in the left. After the patient has rested a few minutes, a second, a third, and, when necessary, a fourth ligature should be introduced.

The ligature first introduced should now be tied, bringing the edges of the velum close together, and, afterwards, the second and third, cutting off the ends of each. After the first knot of the ligature is tied, some precaution should be used to prevent this from slipping, while the second is tied. The method adopted by M. Roux for knotting the ligature is, to make the first fold of the knot with the fore-fingers of each hand placed back to back, and after this has been drawn sufficiently tight, it is seized by an assistant with a pair of forceps, and held until the second and last turn of the knot is made.

Some surgeons use two needles for each ligature—one at each end, and introduce them from behind forwards—one through each margin of the divided velum, instead of one, as in the method just described.

The needle-holder, or "porte" of Schwerdt, is thought to be as well adapted to the purpose as any instrument that can be employed. Dr. Physic's forceps have also been used, but Dr. Mütter thinks Schwerdt's a preferable instrument.

After the operation has been performed, the patient should be directed to keep his mouth closed, maintain perfect quiet; avoid coughing, sneezing, or even spitting, and the use of all solid food. Nor should he take but very little fluid aliment, and this only at long intervals. For appeasing the cravings of the hunger with which some suffer, Dr. Mütter recommends "thin calf's-foot jelly, or what is known as cold custard slip," as the best nourishment that can be used, but he thinks neither should be given until after the second or third day after the operation has been performed.

In the performance of the operation of staphyloraphy, however, different surgeons employ different instruments, and adopt different methods of procedure. Professor N. R. Smith, of Baltimore, who has performed the operation five times, and in three cases with perfect success, employs a very simple needle, of a lance shape, mounted on a handle, and having a slit near its point, which opens at its posterior end. The needle is broader in front of the eye than behind it, which renders the passage of the back part more easy. Armed with a ligature, the curved portion of the needle is carried beyond the fissure, and its point introduced "behind the middle of the uvula," and as soon as it has come through far enough to expose the ligature in the slit, it "is taken hold of with a tenaculum, disengaged from the slit or eye in the needle," when "the latter instrument is withdrawn." A second ligature, in like manner, is introduced "half an inch higher up," and a third, if necessary, "at an equal distance from the second. With the ends of the ligature passed through the uvula, this part is drawn forwards," until the fissure in the soft palate shall assume nearly a "horizontal position," its edges are then cut off with a "pair of scissors, either straight or curved, laterally," or with a bistoury and a pair of forceps. This done, the ligatures are tied, and the ends then cut off.*

Dr. J. C. Warren, of Boston, who has performed the operation a number of times, uses a needle of his own invention with a movable point. Dr. J. M. Warren, son of Dr. J. C., has also performed the operation a number of times, and with very great success. When the fissure extends up into the hard palate, he dissects the mucous membrane from the bones on each side, carrying his knife sufficiently forward

* Vide *Appendix to Cooper's Surgical Dictionary*, by Dr. Reese, p. 126.

towards the alveolar border to form a flap broad enough to meet a like one from the opposite side, along the median line.

Dr. S. P. Hullihen has invented an *acutenaculum* for this operation, which the author believes possesses decided advantages over every other needle-holder that has been employed, as it enables the operator to hold the velum with the point of the needle, as with a tenaculum, until he satisfies himself where the stitch should be. By this means the stitches may always be inserted the proper distance from the edge of the velum and on both sides directly opposite to each other—a matter of great importance in the successful treatment of cleft-palate. See Acutenaculum, Hullihen's.

When the fissure is so wide as to prevent the margins of the velum from being brought together. Dr. Mettauer, of Virginia, recommends making several lateral incisions through the mucous membrane, with a view to increase the extent of the velum, and thus permit their edges to be brought together. Mr. Fergusson proposes, for the more easy and perfect accomplishment of this end, the division of the levator-palati, the palato-pharyngeus, and the palato-glossus muscles. The motory influence of the muscles, in an upward, outward, and downward direction, being thus, for a time, cut off, he believes the motory power of the soft palate will be so much destroyed, that the edges of the fissure may be brought together.*

For supplying a deficiency of structure, Dieffenbach recommends a longitudinal incision a short distance from the margin of the fissure, he has performed the operation in two cases, with complete success. Dr. Mütter, of Philadelphia, who has been very successful in the operation, has also had recourse to these lateral longitudinal incisions, with the most happy results.*

When the inflammation, which follows the operation, is very severe, it should be combated by general and local bleeding, and such other antiphlogistic means as the nature of the case may seem to demand. When the inflammation is accompanied by cough, Dr. Mütter recommends the administration of opiates. The same author recommends, in case sloughing of the parts takes place, the application, with a camel's-hair pencil, of a solution of nitrate of silver, or a mixture of creasote and water, "three or four times a day."

It often happens, that an opening remains in the palate after the velum has been successfully united. This may, sometimes, be closed by the granulation of the edges of the cleft, which may be induced by making them raw by the application of caustics or the actual cautery. Dieffenbach has employed, with success, a concentrated tincture of cantharides, applied several times a day to the edges of the opening.† By some, the actual cautery is preferred, but if this latter be used, it should only be heated sufficiently to blister the parts.‡ The nitrate of silver and potassa pura have been used, but there is danger of causing a greater loss of substance by the use of these powerful caustics than can be gained by the granulations which they induce. The actual cautery is preferable.

STAPHYLOSIS. Staphyloma.

STAR-ANISE. Illicium anisatum.

Star-Grass. *Star-blasing.* Aletris farinosa.

Star-Like. Stellate.

Star-Shoot. Tremella nostoc.

* Vide *Medico-Chirurgical Transactions*, vol. 28.

* Vide *Liston and Mutter's Surgery*, p. 204.

† Vide *British and Foreign Medical Review*, for April, 1846.

‡ Vide *Dr. Hullihen on Cleft Palate*, in Am. Jour. Dental Science, vol. 5, p. 473.

STAR-THISTLE. Carlina acaulis.

STARCH. Amylum.

STARKEY'S SOAP. Sapo terebinthinæ.

STA'SIS. From σταω, I stop. In *Pathology*, a nearly stagnant condition of the fluids.

STAT'ICE. The name of a genus of plants.

STATICE CAROLINIA'NA. Marsh rosemary.

STATICE LIMO'NIUM. Red behen; sea-thrift; sea-lavender.

STAT'ICS. That part of physical science which treats of the forces which keep bodies at rest. It is the converse of *dynamics*.

STA'TION. *Statio;* from *stare*, to stand. In *Physiology*, the act of standing. In *Zoology*, and *Botany*, the habitation of animals and plants.

STA'TIONARY. *Stationarius;* from *stare*, to stand. A name given by Sydenham, to certain diseases which prevail in a place for a number of years.

STATIS'TICS, MEDICAL. *Vital statistics.* The detail of facts connected with the deaths, births, salubrity, &c., of different places.

STATUS. A state or condition.

STATUS NERVOSUS. Nervous diatheses.

STAVESACRE. Delphinum staphisagria.

STEAM. The vapor of water at a high temperature.

STEAR. Sevum; fat.

STEARNS, CHARLES W. Author of a Paper on Congenital Fissure of the Palate, Articulation and Impediments of Speech; published in the London Lancet and republished in the seventh volume of the American Journal of Dental Science. In this paper Mr. Stearns describes a very ingeniously contrived artificial palate and velum, invented by himself. See Artificial Palate.

STEATOCE'LE. From στεαρ, fat, and κηλη, a tumor. A fatty tumor.

STEATO'MA. From στεαρ, fat. An encysted tumor, the contents of which are of a fatty nature.

STEATO'SIS CORDIS. Fatty heart; a preternatural deposition of fat on the heart, or fatty degeneration of this organ.

STEEL. *Chalybs.* Iron combined with carbon.

STEGNO'SIS. From στεγνοω, I constrict. Constriction; constipation; suppression of the evacuations.

STELENGIS. Stridor dentium.

STEL'LA. A star. Also, a bandage crossing like an X.

STELOCHITIS. Osteocolla.

STEM. The body of a tree, shrub, or plant. Also, the peduncle of the fructification, or the pedicle of a flower; that which supports the flower or fruit.

STEM'MATA. From *stemma*, a stem. A term applied to the minute eyes of worms. and to those which are added to the large compound eyes.

STEMA. The penis.

STENOTHO'RAX. One with a narrow chest.

STENTOROPHO'NUS. One who has a strong voice.

STEPHANE. Crown.

STERA. The uterus.

STERCORA'CEOUS. *Stercorarius;* from *stercus*, dung. Of the nature of, or relating, to excrement.

STERCUS. Excrement.

STERELMIN'THA. *Sterelminthans;* from στερεος, solid, and ελμινς, an intestinal worm. A name applied to intestinal worms which have no true abdominal cavity, but composed of parenchymatous substance, as the tape worm.

STEREOT'ICA. From στερεος, hard. Lesions or deformities of the hard parts; an order of diseases in the class *tychica*, of Dr. Good.

STERIL'ITY. *Sterilitas;* from *sterilis*, barren. The condition of an animal, or plant, not capable of procreating its species, or producing fruit.

STER'NAL. Pertaining to the sternum.

STERNAL'GIA. Angina pectoris.

STERNO-CLAVIC'ULAR. Relating to the sternum and clavicle.

STERNO-CLAVICULAR ARTICULATION. The union of the sternum with the clavicle.

STERNO-CLEIDO-MASTOIDEUS. A muscle situated on the anterior and lateral part of the neck.

STERNO-COSTALES. From three to six muscles, situated at each side of the lower surface of the sternum.

STERNO-HYOIDEUS. A long flat muscle, situated at the anterior part of the neck, between the sternum and os hyoides.

STERNO-TYROIDEUS. A long, broad and flat muscle, situated at the anterior part of the neck, between the sternum and thyroid cartilage.

STERNODYNIA SYNCOPIALIS. Angina pectoris.

STER'NUM. *Sternon;* from στερρος, solid. Breast bone. An oblong, flat bone, situated at the fore part of the chest.

STERNUTAMEN'TUM. Sneezing.

STERNUTAMENTO'RIA. Sneeze-wort, or bastard pellitory.

STERNUTA'TIO. Sneezing.

STER'NUTATORY. *Sternutatorius;* from *sternutare*, to sneeze. A substance which provokes sneezing.

STER'TOR. From *stertere*, to snore. The deep snoring which, sometimes, accompanies respiration in disease, particularly apoplexy.

STETH'OSCOPE. *Stethoscopium;* from στηθος, the chest, and σκοπεω, I examine. A hollow cylinder, made of fine-grained wood, as cedar, or maple, invented by Laënnec, to assist auscultation.

STHENI'A. From σθενος, strength; power. Excess of rigidity of the animal tissues; excess of vital action.

STHEN'IC. *Sthenicus.* Inflammatory; active; also, applied to diseases which arise from preternatural excitability.

STIBI'ALIS. Pertaining to antimony; antimonial.

STIBII ESSENTIA. Antimonial wine.

STIBIUM. Antimony.

STIG'MA. From στιζω, to prick or brand. In *Pathology*, a small red speck on the skin. Also, nævus maturnus. In *Botany*, the female organ, situated at the summit of the ovary, or of the style, where it exists.

STIG'MATA. From στιγμα, a mark. The breathing pores in the bodies of insects; the spiracles.

STILBOMA. A cosmetic.

STILL. A vessel, or boiler, employed in the distillation of liquors.

STILLICID'IUM. From *stillare*, to drop. Literally, a dropping; applied, in *Pathology*, to strangury, or the discharge of urine, drop by drop.

STILLIN'GIA. The name of a genus of plants.

STILLIN'GIA SYLVAT'ICA. Queen's-root.

STIMATO'SIS. Stymatosis.

STIM'MI. Antimony.

STIM'ULANT. *Stimulans;* from *stimulare*, to goad. A medicine which is capable of exciting the organic action of the different systems of the economy. Stimulants may be *general*, or *local; diffusible*, or *permanent*. When *general*, they affect the whole system; when *local*, only a particular part; *diffusible*, are those which act promptly but temporarily; the *permanent*, act more slowly, and their effects continue much longer.

STIM'ULUS. Any thing which excites the animal economy generally, or the action of a part.

STIPE. The base of a frond; a species of stem passing into a leaf. Also, the stem of a fungus.

STI'PULE. *Stipula.* A leafy appendage to the proper leaves, or to their footstalks, but are usually at the base of the latter.

STI'PULAR. Belonging to, or resembling, stipules.

STITCH. In *Pathology*, a sharp spasmodic pain in the side.

STLENGIS. Stridor dentium.

STOCKING, LACED. A stocking made of firm cloth in such a way as to admit of being laced.

STO'LON. A runner or shoot, proceeding horizontally from a plant.

STOLONIF'EROUS. Putting forth stolons.

STOMA. The mouth.

STOMAC'ACE. From στομα, the mouth, and κακος, evil. *Cancrum oris.* Canker of the mouth. See Cancrum Oris, and Gangrena Oris.

STOMACH. *Stomachus;* from στομα, the mouth, and χεω, to pour. A musculo-membranous receptacle, continuous with the œsophagus, and situated in the epigastric region beneath the diaphragm, between the liver and spleen.

Stomach Disease. Limosis.

Stomach Pump. An instrument for conveying water and bland nutritious fluids to the stomach in cases of impeded deglutition, and for removing poisonous fluids from it.

STOMACH'IC. *Stomachicus.* That which strengthens or gives tone to the stomach.

STOMACHUS. The stomach.

STOMAL'GIA. From στομα, mouth, and αλγος, pain. Pain in the mouth.

STOMAT'IC. *Stomaticus.* A medicine used in diseases of the mouth, as a dentifrice, or masticatory.

STOMATI'TIS. From στομα, the mouth, and *itis*, a suffix, denoting inflammation. Inflammation of the mouth.

STOMATO-GASTRIC. From στομα, a mouth, and γαστηρ, a stomach. A term applied to the system of nerves principally distributed upon the stomach and intestines.

STOMATOPA'NUS. From στομα, the mouth, and πανος, a glandular tumor. Tumefaction of the glands of the mouth.

STOMATOPHY'MA. From στομα, the mouth, and φυμα, a swelling. A swelling in the mouth.

STOMATOPLAS'TIC. From στομα, the mouth, and πλασσω, I form. The operation of forming a mouth, as in cases where the aperture is closed or contracted.

STOMATORRHA'GIA. From στομα, the mouth, and ρηγνυμι, I break out. Hemorrhage from the mouth.

STOMATO'SCOPE. From στομα, the mouth, and σκοπεω, I view. A speculum oris; an instrument for keeping the mouth open, so as to permit an examination of the parts within.

STONE IN THE BLADDER.—Calculi, vesical.

Stone Crop. Sedum acre.

Stone Pock. Acne indurata.

Stone Root. Collinsonia canadensis.

STORAX. Styrax.

Storax Liquida. Liquidambar styraciflua.

Storax Rubra Officina'lis. Cascarilla bark.

Storax, White. Peruvian balsam.

STOREY'S WORM CAKES. An empirical preparation, composed, principally, of calomel and jalap.

STORKBILL. Geranium maculatum.

STOUT, J. B. Author of a Lecture on the Physiology, Pathology and Natural History of the Teeth, delivered before the New York Society of Dental Surgeons, and of an article on the Teeth, published in the first volume of the Dental Intelligencer.

STRABIS'MUS. From στραβιζω, to squint. Squinting. An affection of the eyes, characterized by a defect of parallelism in the axis of vision, occasioned by a shortness of one of the muscles of the eye-ball.

STRABOSITAS. Strabismus.

STRABOT'OMY. *Strabotomia;* from στραβος, one who squints, and τομη, incision. The operation of dividing the muscle or muscles that distort the eye, for the removal of strabismus.

STRAMO'NIUM. Dartura stramonium.

STRANGA'LIS. A hard tumor in the breast, arising from obstruction of the flow of milk.

STRANGULA'TION. *Strangulatio.* Constriction; obstruction of the air passages; suffocation; contraction of an opening which has given passage to a portion of intestine, so as to prevent its return.

STRANGULATION, UTERINE. Hysteria.

STRAN'GURY. *Stranguria;* from στραγξ, a drop, and ουρον, urine.—Difficulty, accompanied by heat and pain, in passing the urine, which escapes, drop by drop.

STRASBURG. Dissertation upon Odontalgia, by. Regiomonti, 1651.

STRATUM. A layer.

STRAWBERRY. Fragaria vesca and Virginiana.

STREITHEIN. Dissertation on Dentition, by Altd., 1638.—New and Secret Experiments for Preserving the Beauty of the Teeth, by. Haye, 1706.

STREM'MA. From στρεφω, to turn. A sprain.

STRENGTH. Vigor; a tonic state of the tissues of the body.

STREPITO'SUS MORBUS. A disease of the Austrian Alps, in which emphysematous tumors arise on different parts of the body, which crepitate, and are accompanied by a sonorous escape of gas from the mouth and anus.

STREPSIP'TERA. *Strepsipterans;* from στρεπτος, twisted, and πτερον, a wing. An order of insects possessing rudimental elytera in the form of spirally twisted scales.

STRIATE. *Striatus.* Scored; grooved; marked with long lines.

STRIC'TURE. *Strictura;* from *stringere, strictum,* to tie hard. A contracted state of some tube or duct of the body, as the urethra, œsophagus, or intestines.

STRIDOR DENTIUM. *Grincement des dents; brygmus.* Grinding of the teeth; a common symptom in children affected with worms or gastric derangement, during sleep. It is also a symptom of some cerebral affections.

STRIGIL. *Strigilus.* A flesh brush.

STROBELBERGER. Dissertation on Podagra and Tooth-Ache, by. Leipsic, 1630.

STROB'IL. *Strobilus.* An ament, the carpels of which are scale-like, spread open and bear naked seeds, as the fruit of the pines.

STROBIL'IFORM. *Strobiliformis.* Shaped like a strobil, or cone.

STRON'GYLUS GIGAS. A long worm, with a flat, obtuse head, sometimes found in the human kidney.

STRON'TIA. An earth composed of oxygen and a base called *strontium.* When dry, it is white and resembles baryta in many of its properties.

STRON'TIUM. The metallic base of strontia, and very similar to barium.

STROPHOS. Tormina.

STROPH'ULUS. *Red gum* or *red gown; white gum; tooth-rash.* A disease peculiar to infants, and characterized by a cutaneous eruption of red, and sometimes whitish, pimples, occurring, most commonly, about the face, neck and arms. It is distinguished by Dr. Willan into five species. 1. *Strophulus intertinctus,* or red gum, or red gown; 2. *Strophulus albidus,* or white gum; 3. *Strophulus confertus,* denominated the *tooth-rash,* or rank red gum; 4. *Strophulus volaticus,* characterized by clusters of papulæ, appearing successively on different parts of the body, and of a deep red color. 5. *Strophulus candidus,* consisting of large, shining papulæ, which appear whiter than the adjacent cuticle.

STRUC'TURE. *Structura;* from *struere, structum,* to build. The arrangement of the organic elements of animals and plants. Also, a texture.

STRUMA. In *Pathology,* a term generally applied to scrofula. Also, bronchocele.

STRU'MOUS. *Strumosus.* Scrofulous.

STRUTHIUM. Masterwort.

STRYCH'NIA. Strychnine.

STRYCH'NINE. *Strychnina.* An inodorous, bitter, solid, crystalline alkaloid, obtained from *strychnos nux vomica.* It is exceedingly poisonous.

STRYCHNOMAN'IA. From στρυχνος, nightshade and μανια, madness. Madness produced by eating deadly nightshade.

STRYCH'NOS. The name of a genus of plants.

Strychnos Columbrina. A tree of the East Indies. It yields the *lignum columbrinum,* which contains strychnia.

Strychnos Nux Vomica. The tree which yields the poison nut; *nux vomica.*

Strychnos Sancti Ignatii. Ignatia amara.

Strychnos Tieut'e. The tree which produces the *upas tieuté,* a strong Java poison.

Strychnos Toxif'era. This yields the active agent of the ourari or woorari poison of Guayana.

STUN'NED. Laboring under a concussion of the brain.

STUPE. Stuppa.

STUPEFA'CIENT. *Stupefaciens;* from *stupefacio,* to stupefy. That which stupefies; a narcotic.

STU'POR. From *stupeo,* to be senseless. Diminished sensibility to external impressions, often amounting to lethargy.

STUP'PA. A stupe; a piece of cloth, or tow, soaked in a warm liquid and applied to a part of the body.

STUPRUM. A rape.

STURGEON. Acipensor sturio.

STUTTERING. Defective speech; a high degree of stammering.

STYE. Hordeolum.

STYLIFORM. *Styliformis.* Style, or rod-shaped. A term applied, in *Anatomy,* to processes of bone.

STYLO-CERATO-HYOIDEUS. Stylo-hyoideus.

Stylo-Chondro-Hyoideus. Stylo-hyoideus.

Stylo-Glossus. A muscle situated between the lower jaw and os hyoides, at the anterior and upper part of the neck. Its use is to raise the tongue and draw it backwards.

Stylo-Hyoideus. A muscle situated at the anterior, lateral, and superior part of the neck. Its use is to raise the os hyoides and carry it backwards and to one side.

Stylo-Mastoid Foramen. A foramen between the styloid and mastoid processes of the temporal bone. It gives passage to the portia dura of the auditory nerve, and to the stylo-mastoid artery.

Stylo-Pharyngeus. A muscle situated at the anterior and lateral part of the neck. Its use is to dilate and raise the pharynx, and carry it backwards.

STYLOID PROCESS. A long, slender process of the temporal bone, which gives attachment to the stylo-glossus, stylo-pharyngeus, and stylo-hyoideus muscles.

STYLUS. A style; a pencil. In *Surgery,* a probe. In *Botany,* the shaft of a flower.

STYMATO'SIS. From στυω, to have a priapism. Hemorrhage of the penis, accompanied by erection.

STYPSIS. Constriction; constipation.

STYPTERIA. Alum.

STYP'TIC. *Stypticus;* from στυφω, to constringe. A remedy which possesses the property of constringing the animal tissues, and of arresting hemorrhage.

STY'RAX. The name of a genus of plants.

Styrax Alba. Myroxylon peruiferum.

Styrax Benzoin. The tree which affords the gum benzoin.

Styrax Calami'ta. Storax in the cane.

Styrax Colata. Strained storax.

Styrax Liquida. Liquidambar.

STYRAX OFFICINA'LIS. The tree which yields the solid storax.

STYRAX RUBRA. Red storax; storax in the tear.

STY'ROLE. The essential oil of storax.

SUB-. A prefix, signifying beneath.

SUBARCHNOIDE'AN FLUID.—The serous fluid between the arachnoid membrane and pia mater.

SUBCARBONAS POTASSÆ.—Carbonate of potash,

SUBCAR'BONATE. *Subcarbonas.* A carbonate capable of neutralizing more acid, or one in which the base predominates.

SUBCHLORIDE OF MERCURY. Calomel.

SUBCLA'VIAN. *Subclaviculus;*—from *sub*, under, and *clavicula*, the clavicle. That which is under the clavicle.

SUBCLAVIAN ARTERIES. The arteries which pass under the clavicle to the axilla. There is one on each side. The right arises from the arteria innominata, and the left, from the arch of the aorta.

SUBCLAVIAN VEINS. These veins are two in number, one on each side; they are continuations of the axillary, and terminate in the vena cava superior.

SUBCLA'VIUS. A muscle on the anterior and superior part of the thorax.

SUBCRURÆI. Two small muscular slips sometimes under the cruræus.

SUBCRUEN'TUS. From *sub*, and *cruentus*, bloody. Having somewhat the appearance of blood. A term applied to certain excretions which are mixed with, or have the appearance of blood.

SUBCUTA'NEOUS. From *sub*, under, and *cutis*, the skin. That which is situated immediately under the skin.

SUBCUTANEOUS GLANDS. *Glandulæ subcutaneæ.* The sebaceous and sudoriparous glands, the excretory ducts of which perforate the skin.

SUBDIAPHRAGMAT'IC PLEXUS. A plexus formed by the solar plexus; it distributes its branches to the diaphragm.

SUBER. The bark of the *quercus suber*, or cork tree.

SUBINFLAMMA'TION. A very mild degree of inflammation, or slight arterial excitation. Broussais defines it to be an augmentation of the vital phenomena of the lymphatic system.

SUBINTRAN'TES FEBRIS. From *sub*, under, and *intrare*, to enter. Intermittents, the paroxysms of which are so near together, that one begins before that which has preceded it, has completed its stages.

SUBLIMAMEN'TUM. Any substance which hangs or floats in the urine as it cools.

SUBLIMA'TION. *Sublimatio;* from *sublimo*, I raise up. The operation by which solid matters are volatilized by heat, and again condensed into a solid form.

SUBLI'MIS. A name given to certain muscles, from their being more superficially situated than their kindred muscles.

SUBLIN'GUAL. *Sublingualis;*—from *sub*, under, and *lingua*, the tongue. Applied to parts situated under the tongue.

SUBLINGUAL ARTERY. An artery, sometimes considered a branch of the lingual, traversing the anterior border of the hyo-glossus muscle, to be distributed to the sublingual gland and to the muscles of the tongue. It also sends a branch to the frænum linguæ.

SUBLINGUAL GLANDS. These are the smallest of the salivary glands; are situated beneath the anterior and lateral parts of the tongue, resting on the mylo-hyoid muscle, and covered by the mucous membrane. They consist of a granular structure, with excretory ducts, which enter the cavity of the mouth through the mucous membrane between the tongue and inferior cuspid and bicuspid teeth, by several openings.

SUBLUXA'TION. *Subluxatio.* A sprain.

SUBMAX'ILLARY. *Submaxillaris;*

from *sub*, under, and *maxilla*, the jaw. Situated beneath the jaw.

Submaxillary Ganglion. A small nervous ganglion, formed of the vidian nerve, and situated at the posterior part of the submaxillary gland.

Submaxillary Gland. The maxillary gland.

SUBMEN'TAL. *Submentalis;* from *sub*, under, and *mentum*, the chin. Situated under the chin.

Submental Artery. A small artery, given off by the facial, near the base of the jaw. It divides near the median line, and is distributed to the muscles of the chin.

Submental Vein. The vein which accompanies the submental artery.

SUBMER'SION. *Submersio;* from *sub*, under, and *mergere, mersum*, to plunge. The act of plunging under water; drowning.

SUBMU'RIAS. A submuriate; a chloride.

Submurias Hydrargyri. Calomel.

SUBOR'BITAR. *Infra-orbitar.*— From *sub*, under, and *orbita*, the orbit. That which is situated beneath the orbit of the eye.

Suborbitar Artery. The infra-orbitar artery.

Suborbitar Foramen. The infra-orbitar foramen.

Suborbitar Nerve. The infra-orbitar nerve; a branch of the fifth pair.

SUBROTUND. Nearly round.

SUBSCAP'ULAR. *Subscapularis;* from *sub*, under, and *scapula*, the shoulder blade. That which is situated beneath the scapula.

Subscapular Muscle. A muscle situated under the scapula.

SUBSIDEN'TIA. Sediment.

SUBSTAN'TIA. A substance.

Substantia Adamantina Dentium. The enamel of the teeth.

Substantia Ostoidea. A name given by Purkinje and Fränkel to the crusta petrosa, or cementum of the teeth.

Substantia Filamentosa Dentium. A name given by Malpighi to the enamel of the teeth.

Substantia Ossea Dentium. A name given by Malpighi to tooth-bone.

Substantia Vitrea Dentium. The enamel of the teeth.

SUBSUL'TUS TEN'DINUM.— Slight convulsive motions or twitchings of the tendons. It occurs in extreme debility, at an advanced stage of nervous and typhus fevers, and is generally indicative of a fatal termination.

SUBSURDITAS. Deafness.

SUBTEPID. Lukewarm.

SUCCA'GO. From *succus*, juice. The inspissated juice of fruits.

SUCCEDA'NEUM. From *succedere*, to go under, to come in the place of another. That which is used for something else; a substitute.

Succedaneum, Royal Mineral.— The name given by the Crawcours, to amalgam, the use of which, for filling teeth, they introduced into the United States about the year 1833.

SUCCINI RESINA. Artificial musk.

SUCCIN'IC. *Succinicus;* from *succinum*, amber. Of, or belonging to, amber.

Succinic Acid. *Acidum succinicum.* An acid which exists in amber, and obtained from it by distillation. It is also produced by the action of nitric acid on margaric acid.

SUC'CINUM Amber; a hard, brittle, resinous, tasteless substance, sometimes transparent, but oftener semi-transparent or opaque, of a pale, golden yellow, and found principally in Prussia. It has a shining lustre, and when rubbed, becomes electric.

Succinum Cinereum. Ambergris.

Succinum Griseum. Ambergris.

SUC'CULENT. *Succulens.* Juicy; full of juice.

SUC'CUS. Juice. The fluid obtained from plants by pressing them. The term is also applied to animal fluids.

Succus Cyreniacus. The juice of laserwort.

Succus Gastricus. The gastric juice.

Succus Heliotropii. Croton tinctorium.

Succus Indicus Purgans. Gamboge.

Succus Liquiritiæ. Glycyrrhiza glabra.

SUCCES'SION. A mode of exploring the chest for the purpose of ascertaining if there be a collection of water in it. It consists in shaking the body of the patient, and listening to the sounds thus produced.

SUCKER. A stolon.

SUCK'ING. Drawing with the mouth or with an instrument.

SUCK'LING. Lactation.

SUCTION POWER. In *Physiology*, the force supposed to be exerted on the veins by the dilatation of the heart.

SUCTO'RIA. *Suctorii;* from *sugo*, I suck. A term applied to animals provided with mouths for sucking, and organs for adhesion, like the lamprey.

SUDAM'INA. From *sudor*, sweat. The small vesicles, resembling millet seed, which appear on the skin, especially in the summer, after profuse sweating.

SUDA'TIO. From *sudor*, sweat. Sweating.

SUDATORIA FEBRIS. Sudor anglicus.

SUDATO'RIUM. A sweating room.

SUDOR. Sweat. A fluid resulting from visible cutaneous transpiration. See Perspiration.

Sudor Anglicus. Sweating sickness.

SUDORIF'EROUS. From *sudor*, sweat, and *fero*, I carry. A term applied, in *Anatomy*, to the ducts which carry sweat.

SUDORIF'IC. From *sudor*, sweat, and *facio*, I make. A diaphoretic; a medicine which provokes sweating.

SUDORIP'AROUS FOLLICLES. The follicles which secrete the perspirable fluid.

SUET. Sevum.

SUFFIMEN'TUM. A perfume; a fumigation.

SUFFITUS. A fumigation.

SUFFOCA'TION. *Suffocatio;* the state of an animal, in which respiration is arrested or impeded, from whatever cause produced.

SUFFUMIGA'TION. From *sub*, under, and *fumigo*, to smoke. The burning of odorous substances.

SUFFUSIO AURIGINOSA. Jaundice.

Suffusio Nigra. Amaurosis.

SUFFU'SION. The act, or state, of being overspread, as with a fluid. In *Pathology*, an extravasation of some humor, as the blood. The term is sometimes applied to *cataract*, and to *amaurosis*.

SUGAR. *Saccharum.* The sweet constituent of vegetable and animal products, obtained by inspissating the juice of the plants from which it is usually obtained, as that of the *cane*, the *maple*, the *beet*, &c., and allowing the sugar to crystallize.

Sugar, Maple. Acer saccharinum.

Sugar of Lead. Plumbi acetas.

Sugar of Milk. Lactin.

SUGILLA'TION. *Sugillatio;* from *sugillo*, to bruise. A bruise; an ecchymosis. Also, a spot made by a leech-bite or a cupping-glass.

SU'ICIDE. *Suicidium;* from *sui cædes*, murder of one's self. Self-murder.

SUL'CATE. *Sulcatus.* Grooved; furrowed.

SUL'CUS. A furrow; a groove.

SUL'PHAS. A salt formed by the union of sulphuric acid with a salifiable base.

Sulphas Antimonii. Sulphate of antimony.

Sulphas Quinæ. Sulphate of quinine.

SULPHATE. Sulphas.

Sulphate of Lime. Gypsum.

SUL'PHIDE. Sulphuret.

SULPHIS. *Sulphite.* A salt form-

ed by the union of sulphurous acid with a salifiable base.

SULPHO-. A prefix, signifying the presence of sulphur or sulphuric acid.

SULPHOCYANIDE. A compound of sulpho-cyanogen.

SULPHO-CYA'NOGEN. Bisulphuret of cyanogen.

Sulpho-Gly'ceric Acid. A compound of glycerine with sulphuric acid.

Sulpho-Indigotic Acid. The solution of indigo in sulphuric acid.

Sulpho-Proteic Acid. A compound of sulphuric acid and proteine.

Sulpho-Vin'ic Acid. Bisulphate of ethyle.

SULPHUR. Brimstone. A combustible, brittle body, of a yellow color, unpleasant odor when rubbed or heated, is rendered electric by friction, volatilizes when heated, and condenses unchanged. It is a volcanic production, and obtained in large quantities from Solfatara in Italy.

Sulphur Antimonii Præcipi'tatum. Precipitated sulphuret of antimony.

Sulphur Auratum Antimonii.—Golden sulphuret of antimony.

Sulphur Lotum. Washed sulphur.

Sulphur Præcipita'tum. Milk of sulphur.

Sulphur Sublima'tum. Sublimed sulphur. Flowers of sulphur.

Sulphur Vivum. Native sulphur.

Sulphur-Wort. Peucedanum officinale.

SULPHU'REOUS. *Sulphureus.*—Of, or belonging to, sulphur.

SULPHUROUS ACID. A pungent gaseous acid, obtained by burning sulphur in air.

SULPHURET. A compound of sulphur.

Sulphuret of Carbon. Bisulphuret of carbon.

SULPHURETED HYDROGEN. A compound of sulphur and hydrogen, an extremely fetid and inflammable gas.

SULPHURET'UM. A sulphuret. A compound formed by the union of sulphur with an alkali, earth or metal.

Sulphuretum Ammoniæ. Sulphuret of ammonia.

Sulphuretum Calcii. Sulphuret of calcium.

Sulphuretum Hydrargyri Nigrum. Black sulphuret of mercury.

Sulphuretum Sodii. Sulphuret of sodium.

Sulphuretum Stibii Nativum.—Native sulphuret of antimony.

SULPHU'RIC. *Sulphuricus.* Belonging to sulphur.

Sulphuric Acid. *Acidum sulphuricum. Acidum vitriolicum.* A fluid, oily, colorless acid, of a very caustic nature.

SUMACH. Rhus glabra.

SUMBUL ROOT. Musk root.

SUMMER COMPLAINT. Diarrhœa.

Summer Rash. Lichen tropicus.

SUNBURN. Ephelis.

SUN-DEW. Drosera rotundifolia.

Sun-Stroke. Coup de soleil.

SUPER. A common prefix, signifying above.

SUPERARSEN'IAS POTASSÆ. Superarseniate of potash; Macquer's arsenical salt.

SUPERBUS. The rectus superior oculi.

SUPERCIL'IARY. *Superciliaris;* from *super*, above, and *cilium*, the edge of the eyelid. Belonging, or relating, to the eyebrows, as the superciliary arches.

Superciliary Arches. The prominences on the frontal bone above the orbits covered by the eyebrows.

Superciliary Ridges. The superciliary arches.

SUPERCIL'IUM. The eyebrow.

SUPERFI'CIAL. From *super*, upon, and *facies*, the face. Being on the surface, not deep.

SUPERFI'CIES. The surface; the exterior part of a thing.

SUPERFŒTA'TION. *Superfœtatio;* from *super*, upon, and *fœtare*, to

bring forth young. The impregnation of a woman already pregnant.

SUPERIMPREGNA'TION. Superfetation.

SUPERIOR AURIS. The attollens aurem.

SUPERPURGA'TION. *Superpurgatio.* Excessive evacuation by stool.

SUPERSCAPULA'RIS. The *supra-spinatus*, and *infra-spinatus* muscles, are so called.

SUPERUS. Above.

SUPINA'TION. *Supinatio;* from *supinus*, lying on the back. Turning the palm of the hand upwards by rotating the forearm.

SUPINA'TOR. A term applied to muscles which turn the hand upwards.

Supinator Brevis. Supinator radii brevis.

Supinator Longus. Supinator radii longus.

Supinator Radii Brevis. A small tendinous muscle situated at the upper part of the forearm.

Supinator Radii Longus. A long muscle, enveloped in a tendinous fascia, situated along the outer surface of the radius, immediately under the integuments.

SUPPOSITO'RIUM UTERINUM. A pessary.

SUPPOS'ITORY. *Suppositorium;* from *sub*, under, and *ponere*, to put. A solid medicine intended to be introduced into the rectum, either for the purpose of favoring an intestinal evacuation, or to act as an anodyne.

SUPPRES'SION. From *supprimo*, to withhold. In *Pathology*, the stoppage of a natural, continued, periodic, or of a critical evacuation, as a suppression of urine, &c.

SUPPURANS. Suppurative.

SUPPURA'TION. *Suppuratio;*—from *suppuro*, to suppurate. The formation or secretion of pus.

SUPPURATIVE. *Suppurans.* That which promotes suppuration.

SUPRA-. A common prefix, signifying above.

Supra-Costa'les. The intercostal muscles.

Supra-Orbitar. *Supra-orbitalis.*—That which is situated above the orbit.

Supra-Spinatus. Above the spine. *Supra-scapularis.* A muscle of the arm.

SURA. The calf of the leg. Also, the fibula.

SUR'CULUS. The stem of mosses.

SURDENT. From *supra*, above, and *dens*, a tooth. A temporary tooth forced to one side by the eruption of the tooth of replacement.

SURDITAS. Deafness.

SUR'FEIT. A sense of fulness, oppression, nausea, and sickness, occasioned by eating to excess.

SUR'GEON. *Chirurgeon.* From χειρ, the hand, and εργον, work. One who practices surgery.

Surgeon-Apoth'ecary. One who unites the practice of surgery with that of an apothecary.

Surgeon, Dental. See Dental Surgeon.

Surgeon-Dentist. See Dental Surgeon.

SUR'GERY. *Chirurgia.* That part of the curative art which has for its object the treatment of external diseases, injuries and malformations.

Surgery, Dental. See Dental Surgery.

SUR'GICAL. *Chirurgicus.* Belonging, or relating, to surgery.

SUS. The name of a genus of animals.

Sus Scrofa. The hog.

SUSCEPTIBIL'ITY. Impressibility; capability of receiving impressions; great sensibility.

SUSPEN'DED ANIMATION. Asphyxia.

SUSPEN'SION. Hanging. Also, temporary cessation.

SUSPENSO'RIUM. From *suspendo*, to hang. A suspensory; that which sustains, or suspends any part, as a bag, or bandage.

Suspensorium Hepatis. The broad ligament of the liver.

SUSPENSORIUS TESTIS. The cremaster muscle.

SUSPEN'SORY. Suspensorium.

SUSPIR'IUM. From *sus*, under, and *spiro*, I breathe. Short breathing. A sigh.

SUSUR'RUS. Tinnitus aurium.

SUTURE. *Sutura;* from *suo*, to join together. A union. In *Anatomy*, the union of bones by means of serrated, or dentated, edges. In *Surgery*, the stitching of the lips of a wound for the purpose of procuring their union. Several kinds of sutures have been recommended by surgeons, but the two principal are, the *interrupted* and the *twisted*. The *interrupted suture* consists in passing a needle, armed with a ligature, through the lips of a wound, previously brought together, and then tying the extremities. The *twisted suture* consists in passing a needle or pin through the lips of the wound, so as to keep them accurately in contact, and then passing a waxed ligature around it, from one side to the other, in the form of a figure ∞. This latter suture is chiefly employed in the operation for hare-lip, and to unite wounds of the face.

SWALLOW-WORT. Asclepias vincetoxicum.

SWEAT. Sensible moisture upon the skin, excreted from it. Sensible perspiration.

SWEATING SICKNESS OF MALWAH. A malignant form of cholera.

SWEDIAUR'S LIQUOR AGAINST APTHÆ. ℞.—Borax, in powder, ʒ ij; tinct. myrrh, ʒ i; distilled rose water, ℥ i; honey of roses, ℥ ij. Mix. To be applied to the apthæ several times a day.

SWEEPINGS. A term applied to the dust and dirt swept from the floor of the mechanical workshop or laboratory of the dentist, jeweller, and gold-beater, which, notwithstanding every precaution and care to prevent the escape of the precious metal, will be found to contain more or less of it. These sweepings are subjected to a process for the preparation and collection of the gold. See Washing.

SWEET-FLAG. Acorus calamus.

SWEET MARJORAM. Origanum marjorana.

SWEET NAVEW. Brassica rapa.

SWEET RUSH. Andropogon schænanthus.

SWEET SULTAN. Centaurea moschata.

SWEET WILLOW. Myrica gale.

SWELL'ING. A morbid increase of the bulk of the whole or any part of the body.

SWELLING, WHITE. Hydarthrus.

SWIETE'NIA. The name of a genus of plants.

SWIETENIA FEBRIF'UGA. The red dye-wood tree.

SWIETENIA MAHAG'ONI. The mahogany tree.

SWIM'MING. Natation.

SWIMMING OF THE HEAD. Vertigo.

SWORD-SHAPED. Lanceolate and ensiform.

SWOON. Syncope.

SYCAMINOS. Morus nigra.

SYCAMORE. *Sycamorus;* from συκον, a fig, and μορον, a mulberry. The sycamore fig tree.

SYCO'MA. Sycosis.

SYCON. *Syconus.* A fruit like a fig.

SYCO'SIS. A tumor resembling, in shape, a fig. Also, a fungous ulcer. Dr. Bateman describes it to be an eruption of inflamed, but not very hard tubercles, occurring on the bearded portion of the face, and scalp, in adults, in irregular patches or clusters. The tubercles are red and nearly the size of a pea.

SYMBLEPH'ARUM. *Symblepharosis;* from συν, with, and βλεφαρον, the eyelid. Adhesion of the eyelids, occasioned by concretion, ulcers of the cornea, scarification and burns.

SYMBOLOGICA. Symptomatology.

SYMBOLS, CHEMICAL. See Equivalents, table of.

SYM'METRY. *Symmetria;* from συν, with, and μετρον, a measure. Correspondence, in size and shape, of the several parts of the body, to each other.

SYMPATHET'IC. *Sympatheticus;* from συν, with, and παθος, suffering. Depending on, or relating to, sympathy.

Sympathetic Ink. A coloring matter which is invisible when cold, and colored when hot, or on the application of an appropriate agent. The chloride of cobalt is thought to be the best.

Sympathetic Nerve. The intercostal nerve.

SYM'PATHY. *Sympathia;* from συν, with, and παθος, affection. The relation that exists between two or more organs, or parts, contiguously, or remotely, situated, whereby an action or affection in one, is participated in by the others.

SYMPHOREMA. Congestion.

SYMPHYSEOT'OMY. *Symphysotomy;* from συμφυσις, natural union, and τεμνω, I cut. The operation or section of the symphysis pubis, called the Sigaultian operation. It is performed with a view of increasing the diameter of the pelvis, to facilitate delivery.

SYMPHYS'IA. A species of malformation occasioned by the union of parts naturally divided.

SYM'PHYSIS. From συμφυω, to grow together. The connection of bones by means of intervening cartilage or other texture.

SYM'PHYTUM. The name of a genus of plants.

Symphytum Maculosum. Pulmonaria officinalis.

Symphytum Minus. Prunella vulgaris.

Symphytum Officina'le. Comfrey.

Symphytum Petræ'um. Coris monspeliensis. Montpellier coris.

SYMP'TOM. *Symptoma;* from συμπτωμα, a coincidence. A sign of disease; a perceptible change or alteration in the appearance, or functions of one or more of the organs of the body, during the progress of disease.

SYMPTOMAT'IC. *Symptomaticus.* That which is a symptom of some other affection.

SYMPTOMATOL'OGY. *Symptomatologia;* from συμπτωμα, a symptom, and λογος, a discourse. That part of pathology which treats of the symptoms of disease.

SYMPTO'SIS. Emaciation; atrophy.

SYN-. A prefix, signifying union, similarity, &c.

SYNARTHRO'SIS. From συναρθροω, to articulate. That mode of articulation which does not admit of motion. There are three species, namely, *suture, harmony,* and *gomphosis.*

SYNCHONDRO'SIS. From συν, with, and χονδρος, a cartilage. The union of bones by means of an intervening cartilage.

SYNCHONDROT'OMY. *Synchondrotomia.* Symphyseotomy.

SYN'CHRONOUS. From συν, with, and χρονος, time. Occurring at the same time.

SYN'CLONUS. From συν, with, and κλονος, agitation. A genus of disease in Dr. Good's Nosology, comprehending those affections characterized by tremulous and clonic agitation of the muscles, particularly when excited by the will.

Synclonus Ballismus. Shaking palsy.

SYN'COPE. From συγκοπτω, I fall down. Fainting; swooning.

Syncope Angino'sa. Angina pectoris.

SYNDESMOL'OGY. *Syndesmologia;* from συνδεσμος, a ligament, and λογος, a discourse. That part of *Anatomy* which treats of the ligaments.

SYNDES'MO-PHARYNGE'US.—The constrictor pharyngis medius.

SYNDES'MOS. A ligament.

SYNECHI'A. From συν, with, and εχειν, to have, or to hold. Adhesion of the iris with the cornea, or with the capsule of the crystalline lens.

SYNEZI'ZIS. *Synizesis;* from συν, with, and ζευγνυειν, to join. Closure or

obliteration of the pupil of the eye. It may be *congenital* or *accidental; simple* or *complicated*, according to the time of its occurrence, or the nature of the affection.

SYN'OCHA. From συνεχω, I continue. Inflammatory fever.

SYN'OCHUS. From συνεχω, I continue. Continued fever, or a fever which is inflammatory at first, but which ultimately becomes typhoid.

Synochus Putris. Typhus gravior.

SYNOSTEOL'OGY. *Synosteologia;* from συν, with, οστεον, a bone, and λογος, a discourse. That part of *Anatomy*, which treats on the joints.

SYNOSTEOT'OMY. *Synosteotomia;* from συν, with, οστεον, a bone, and τεμνειν, to cut. The dissection of the joints.

SYNO'VIA. The unctuous and serous fluid, exhaled by the synovial membranes of the movable articulations.

SYNO'VIAL. *Synovialis.* Belonging, or relating, to the synovia.

Synovial Glands. The fatty fimbriæ found within the synovial capsules of some joints.

Synovial Membrane. The membrane surrounding the movable articulations, and which secretes the synovia.

SYN'TASIS. Tension of parts.

SYNTAXIS. Articulation.

SYNTENO'SIS. From συν, with, and τενων, a tendon. The articulation of bones by tendons.

SYNTEXIS. Marasmus; consumption.

SYN'THESIS. From συντιθημι, I compose. In *Chemistry*, the combination of several bodies for the formation of a new compound, or the reunion of the elements of a compound, previously separated by analysis. In *Surgery*, the reunion of parts which have been divided.

SYNTHETIS'MUS. The reduction of a fracture, and maintaining it reduced.

SYNULOTICA. Remedies which promote the healing of a wound.

SYNYMEN'SIS. *Synimensis;* from συν, with, and υμην, a membrane. The connection of bones by a membrane.

SYPH'ILIS. The origin of this word is obscure. Some derive it from σιφλος, filthy. The venereal disease, which consists of certain morbid phenomena produced in various textures of the body by the action of a specific poison; commencing by a chancre, and followed by a bubo, ulcers in the throat, copper-colored blotches on the skin, pains in the bones, nodes, &c.

Syphilis Indica. Frambœsia.

SYPHILOID. *Syphiloides;* from *syphilis*, and ειδος, resemblance. *Syphilis pseudo-syphilis.* A term applied to ulcers and other affections from their resemblance to syphilis.

SYRIG'MUS. Tinnitus aurium.

SYRINGA A syringe.

Syringa Vulgaris. The common lilac.

SYR'INGE. An instrument from which any liquid may be squirted.

Syringe, Tooth. See Tooth-Syringe.

SYRINGOT'OMUM. A knife formerly used in the operation for *fistula in ano.*

SYRINX. A fistula. A syringe. A pipe.

Syrinx Hiera. The spinal column.

SYROP. Syrup.

SYR'UP. Syrupus.

Syrup, Hive. Compound syrup of squill.

SYRUPUS. Sugar dissolved in water, either with or without medicinal impregnation.

Syrupus Simplex. Simple syrup.

Syrupus Aceti. Syrup of vinegar.

Syrupus Allii. Syrup of garlic.

Syrupus Althæ'æ. Syrup of marsh mallow.

Syrupus Amygda'læ. Syrup of almonds. Syrup of orgeat.

Syrupus Antiscorbu'ticus. Syrup of horseradish.

Syrupus Aurantii Corticis. Syrup of orange-peel.

Syrupus Croci. Syrup of saffron.

Syrupus Ipecacuan'hæ. Syrup of ipecacuanha.

Syrupus Krame'riæ. Syrup of rhatany.

Syrupus Limonis. Syrup of lemons.

Syrupus Mori. Syrup of mulberries.

Syrupus Papa'veris. Syrup of poppies.

Syrupus Rhamni. Syrup of buckthorn.

Syrupus Rhei. Syrup of rhubarb.

Syrupus Rhei Aromaticus. Aromatic syrup of rhubarb.

Syrupus Rhœ'ados. Syrup of red poppy.

Syrupus Rosæ. Syrup of roses.

Syrupus Rosæ Gal'licæ. Syrup of red roses.

Syrupus Sarsaparil'læ. Syrup of sarsaparilla.

Syrupus Sarsaparillæ Compositus. Compound syrup of sarsaparilla.

Syrupus Scillæ. Syrup of squill.

Syrupus Scillæ Compos'itus.—Compound syrup of squill. Hive syrup.

Syrupus Senegæ. Syrup of senega.

Syrupus Sennæ. Syrup of senna.

Syrupus Toluta'ni. Syrup of tolu.

Syrupus Violæ. Syrup of violets.

Syrupus Zingib'eris. Syrup of ginger.

SYSPA'SIA. From συσπαω, I contract. A genus of disease in Dr. Good's Nosology, comprehending convulsions, epilepsy, and hysteria.

SYSSARCO'SIS. From συν, with, and σαρξ, flesh. The union of bones by means of muscles.

SYSTAT'ICA. From συνιστημι, I associate. Nervous diseases which affect several or all the sensorial powers at the same time. The fourth order, in the class *neurotica*, of Dr. Good.

SYSTEM. *Systema*; from συν, with, and ιστημι, I place. In *Anatomy*, an association of organs which, as the bones, arteries, veins, or nerves, are destined to execute analogous functions, and hence, the osseous, arterial, venous and nervous systems. In *Physics*, the arrangement of bodies, as of the planets around a common centre, exhibited in the system of the universe. In *Natural History*, the methodical arrangement of beings, with a view of facilitating their study.

SYSTOLE. From συστελλω, to contract. The contraction of the heart, to give impulse to the blood.

SYSTOLTIC. Pertaining to the systole of the heart.

SYSTREM'MA. The cramp.

SZYMANSKI, JOHN ADRIAN. John Adrian Szymanski, late surgeon dentist, of New York, was of an ancient and distinguished family of Warsaw, Poland. He was the second and youngest son of Valentine Szymanski, librarian for king Stanislaus; was born September 10th, 1793. He lost his father when only two years of age, but he received a liberal education under the direction of a step-father. The profession of surgery having been chosen for his future occupation, he served a regular apprenticeship in Warsaw and Dantzic with a view to accomplish himself for the duties of this branch of medicine, and, in 1814, he commenced practice in the last named place, but soon after went to Sweden, and obtained a situation as surgeon's mate in the hospital of Gottenburg. But having an ardent desire to travel, he left there in about eighteen months, and went to England, where, the author believes, his attention was first directed to dental surgery. In 1816, he came to the United States, and commenced practice as a dentist in Philadelphia. But he did not remain here long, and the four or five succeeding years was spent in traveling over the United States, practicing in many of the cities and towns with great success, and acquiring reputation wherever he went.

Added to a scientific knowledge of his profession, Dr. S. possessed great

mechanical tact and ingenuity. In 1822, he married an accomplished young lady, Miss Waller, in the neighborhood of Fredericksburg, Va. For several years after, he spent most of his time, during the winters, in Charleston, S. C., Savannah, and Augusta, Ga., and the summers in Virginia. In 1828, he moved to New York, and entered into co-partnership with the late Mr. Charles Newton, an eminent dentist, but was soon after attacked by dropsy of the chest, which terminated his life on the 17th of January, 1829.

Dr. Szymanski was a man of polished manners and accomplished education. Besides his own, he spoke six different languages fluently, namely, Latin, Greek, French, German, Spanish and English, and by his death the dental profession lost a valuable member.

T.

T BANDAGE. A bandage so named from its being shaped like the letter T. It is used after the operation for fistula in ano, and in diseases of the perinæum, anus, &c.

TABACUM. Necotiana tabacum.

TABEL'LA. A lozenge.

TABES. *Marasmus tabes;* from *tabere*, to consume. Wasting of the whole body, attended by languor, and fever.

Tabes Dorsalis. A disease characterized by great prostration of strength, dyspeptic symptoms, pain and weakness in the back and loins, gleet and impotence, hectic fever, and general emaciation.

Tabes Mesenter'ica. *Tabes scrofulosa; tabes glandularis.* Engorgement and tubercular deposit of the mesenteric glands, accompanied with emaciation, irritability and derangement of the nutritive functions. It begins with loss of appetite, languor, pain in the back, fullness, followed by tenderness of the abdomen, and chalky appearance of the alvine evacuations, which are sometimes mixed with blood and mucus.

Tabes Pulmonalis. Phthisis pulmonalis.

Tabes Saturnina. Wasting from lead poison.

Tabes Urinalis. Diabetis.

TABID. *Tabidus.* Consumptive; emaciated.

TABLE. *Tabula.* An extended surface: applied, in *Anatomy*, to the compact tissue, or layers forming the bones of the cranium, of which there are two; one external, and one internal, called the *tabula vitrea.*

TABULA. A table.

TACAMAHACA. A resinous substance, of a brownish color, aromatic taste, and fragrant smell, which exudes from the *fagara octandra* tree.

TACITUR'NITY. *Taciturnitas;* from *tacere*, to be silent. The condition of a person who does not speak. It is often a symptom of nervous affections, particularly of melancholy.

TACT. *Tactus.* Passive sensation, or the faculty by which the cutaneous membrane is made sensible of the presence of a body without being able to see it.

TACTUS. Tact.

TÆ'NIA. *Tenia;* from ταινια, a fillet, or ribbon. Tape-worm. A genus of intestinal worms, characterized by a flat, long, and articulated body.

Tænia Hippocampi. Corpora fimbriata.

Tænia Semicircula'ris. A semi-

transparent layer running in the groove that separates the thalamus opticus from the corpus striatum in the lateral ventricle of the brain.

TÆNIA TARINI. A band of a yellowish color passing over the corporis striata.

TÆNOID. From *ταινια*, a ribbon, and *ειδος*, like. Ribbon-shaped, like the *tænia*, or tape-worm.

TAFT, J. Author of a Paper on Irregularity of the Teeth, and another on Abrasion of the Teeth; both published in eighth volume of American Journal of Dental Science.

TAIL. Cauda.

TALIACOTIAN OPERATION.—An operation to restore lost or defective parts, so called, because first introduced by Caspar Taliacotius. This operation is also called *rhinoplastic*, *cheiloplastic*, &c., according to the part restored.

TALPA. *Talparia*. A mole. The term has also been applied to a kind of tumor situated on the head from its seeming to burrow, like a mole, under the scalp.

TALIPES. Club-foot.

TALMA, A. F. Author of a Memoir on the Preservation of the Teeth, and on some Prejudices relative to the Dental Art. Brussels, 1843. This work has been translated into English and republished in the London Forceps.

TALUS. From *taxillus*, a small die. The astragalus, a bone of the ankle.

TAMARIND. The fruit of the tamarind tree.

TAMARIN'DUS. The name of a genus of plants.

TAMARINDUS IN'DICA. The tamarind tree.

TAMARIS'CUS. The tamarix gallica.

TAM'ARIX. The name of a genus of plants.

TAMARIX GAL'LICA. The tamarisk tree.

TAMPON. A plug.

TAMPONNEMENT. Plugging.

TANACE'TUM. Tansy. Also, the name of a genus of plants.

TANACETUM BALSAMI'TA. The officinal costmary, or alecost.

TANACETUM VULGARE. Common tansy.

TANASIA. Tanacetum.

TANNIC ACID. Tannin; a vegetable acid found in most astringent barks, especially in the gall-nuts, sumach, kino, and catechu. It is a powerful astringent, and the use of it has been recommended for allaying the sensibility of sensitive teeth, preparatory to their preparation for filling, and, also, for reducing inflammation of an exposed dental pulp.

TANNICUM PURUM. Tannin.

TANNIN. Tannic acid.

TANSY. Tanacetum.

TANSY, MAUDLIN. Achillea ageratum.

TANSY, WILD. Potentilla anserina.

TAPE'TUM. A shining spot on the outside of certain animals, which is said to add to the intensity of vision.

TAPE-WORM. Tænia.

TAPIOCA. Jatropha manihot.

TAPPING. Paracentesis.

TAPSUS. Black mullein.

TAR. The impure turpentine procured by burning, from the wood of the pinus palustris and other species of pinus.

TAR, BARBADOES. Petroleum.

TAR WATER. Water impregnated with tar.

TARAGON. Artemisia dracunculus.

TARAX'ACUM. Leontodon taraxacum.

TARAX'IS. *Tarache*. Slight inflammation of the eye. Also, a disorder of the sight, arising from a blow, compression of the eye, or the action of smoke, or other external cause.

TAREN'TULA. From *tarentum*, a town of Italy where they abound. A species of spider.

TARO. Arum esculentum.

TAR'SAL. *Tarseus*. Relating to the tarsus.

TARSAL ARTICULATIONS. The union of the tarsal bones.

TARSEUS. Tarsal.

TAR'SUS. The instep, which is composed of seven bones, viz. the astragalus, os calcis, os naviculare, and three ossa cuneiformia. Also, two thin cartilaginous layers situated in the substance of the edge of each eyelid.

TARTAR. *Tartarum.* The deposit attached to the inside of wine casks. Also, the earthy deposit which forms on the teeth. See Salivary Calculus.

TARTAR, CREAM OF. Supertartrate of potash.

TARTAR EMETIC. Antimonium tartarizatum.

TARTAR, SALT OF. Carbonate of potash.

TARTAR, SOLUBLE. Tartrate of potash.

TARTAR, VITRIOLATED. Sulphate of potassa.

TARTARIC ACID. *Acidum tartaricum.* The vegetable acid existing in cream of tartar, which, after being extracted, is a white crystallized solid, in the form of irregular six-sided prisms, having a strong acid taste.

TARTARUM. Tartar.

TARTARUM EMETICUM. Antimonium tartarizatum.

TARTARUM REGENERATUM. Acetate of potassa.

TARTARUS AMMONIÆ. Tartras ammoniæ.

TARTARUS DENTIUM. Tartar of the teeth.

TARTRAS. A tartrate, formed by the union of tartaric acid with a salifiable base.

TARTRAS AMMONIÆ. Tartrate of ammonia.

TARTRAS POTASSÆ. Tartrate of potassa.

TARTRAS POTASSÆ ACIDULUS. Bitartrate of potassa.

TARTRAS SODÆ. Potassio-tartrate of soda.

TASIS. Extension; tension.

TASTE. *Gustus.* That sense, by aid of which, the flavor of sapid bodies is perceived. The tongue is the principal organ of taste.

TAVEAU, ORE. Hygiene of the Mouth, or Treatise on the Means necessary for the Preservation of the Teeth, &c., by. Paris, 1833.

TAVEAU'S ELIXIRS FOR THE MOUTH. 1. ℞.—Tincture of guaiac, vulnerary spirits. ā ā ʒ vj; essential oil of mint, gtt. iv. M. 2. ℞.—Tincture of guaiac, ʒ iv; camphorated brandy, ʒ i; essence of mint, essence of scurvy-grass, ā ā gtt. vj; essence of rosemary, gtt. x. Mix.

TAVEAU'S ODONTALGIC ELIXIR. ℞.—Cloves, opium, cinnamon, ā ā ʒ ij; pyrethreum, ʒ i; resin, ʒ ss; brandy of 22 degrees, ʒ viij. Mix.

TAVEAU'S ELIXIR FOR THE GUMS. ℞.—Vulnerary water, ʒ viij; spirit of scurvy-grass, ʒ i; essential oil of cloves, gtt. v. Mix.

TAVEAU'S LOZENGES FOR THE MOUTH. ℞.—Catechu, ʒ ij; coral, ʒ iv; sugar, ʒ ij; essence of cinnamon, gtt. x. Mix and divide into lozenges of ten grains each. These are recommended for the purpose of correcting fetor of the breath.

TAVEAU'S POWDERS FOR THE TEETH. 1. ℞.—Prepared terræ sigillatæ, ʒ v; cream of tartar, ʒ ij; cloves, ℈ i. 2. ℞.—Pumice stone, ʒ vi; cream of tartar, ʒ ij; lac carmine, ʒ i; cinnamon, ʒ ij. 3. ℞.—Red coral, ʒ iv; dragon's blood, ʒ i; cinnamon, ʒ ss; citron, ʒ ij; white sugar, ʒ ss. Mix.

TAXIS. From τασσω, I order, I arrange. The replacement of parts which have left their natural situation, as in the reduction of hernia, with the hand, without the aid of instruments.

TAXUS BACCA'TA. The yew tree.

TAYLOR, EDWARD. On the Use of Arsenic in Destroying the Sensibility of Carious Teeth, preparatory to Plugging; published in the American Journal of Dental Science, volume fifth.—On Filing Teeth; published in

the Dental Register of the West. Dr. Taylor is also author of several other articles on the teeth, published in the last named periodical.

TAYLOR, JAMES. Dissertation on the State of the Dental Profession, and Dental Empiricism, delivered before the American Society of Dental Surgeons, at the sixth annual meeting, by.—Address delivered before the Mississippi Valley Association of Dental Surgeons, by. August, 1844.—Remarks on the Vascularity of the Teeth, read before the last named association, June, 1844, by. The above were published in the fifth and sixth volumes American Journal of Dental Science. Dr. Taylor is also author of a Paper on the Effects of Calomel on the Teeth; published in volume first of the Dental Register of the West, a periodical of which he is one of the editors.

TAYLOR, JOSEPH. Author of a Paper on the Use of Letheon; published in the Dental Register of the West.

TEA. Thea.

Tea Berry. Gaultheria.

Tea, Mountain. Gaultheria.

Tea, Oil. An oil expressed from the seeds of the *camellia oleifera*.

TEAR. *Lachryma*. The limpid, saline, inodorous, and colorless humor secreted by the lachrymal gland, and poured out between the eyelids and globe of the eye.

TEAT. The nipple.

TEAZEL. Eupatorium perfoliatum.

TECNOCTONIA. Infanticide.

TECTIBRAN'CHIATE. From *tego*, I cover, and *branchia*, gills. An order of hermaphrodite gastropods in which the gills are covered by a process of the mantle.

TEETH. The small bones which occupy the alveolar cavities of the upper and lower jaws. They are the hardest portions of the body and the principal organs of mastication. They are distinguished into *milk*, *temporary* or *deciduous* teeth, and *permanent* or *adult* teeth. The first division consists of three classes, namely: 1. Incisores, 2. Cuspidati, 3. Molares.—The second division consists of four classes, namely: 1. Incisores, 2. Cuspidati, 3. Bicuspides, 4. Molares.

The temporary teeth are twenty in number, ten in each jaw; to wit, four incisores, two cuspidati, and four molares. There are thirty-two in the permanent set, sixteen to each jaw, which are designated as follows: incisores, four; cuspidati, two; bicuspides, four; molares, six. The third or last molar is sometimes called the dens sapientiæ or wisdom tooth. For a description of the classes belonging to each division, see the articles respectively relating to them.

In speaking on the teeth in general, Mr. Alexander Nasmyth says, they "may be regarded in the first place as the armory of the mouth; and in the second, as the instruments by which the process of assimilation is commenced. They assist in seizing, dividing, tearing, and masticating the substances which the diversified surface of the earth, the fathomless depths of the ocean, and the boundless expanse of atmosphere, afford, in infinite variety, as materials for building up the physical frame-work of animated existence. They present themselves as appendages of the skin, to the products of which in some of their modifications they bear a great resemblance, whilst in others they resemble true bone. The varieties which they present, throughout the range of the animal kingdom, correspond to the infinite diversities in the functions they are required to perform; and wonderful are the minute and perfect adaptations which they present in various animals to the wants and instincts of the latter. Indeed, from their peculiar conformation, they indicate so exactly the type of animal to which they belong, that they are found to furnish the best characteristic marks by which to classify the members of the

animal kingdom. Their importance, therefore, in a scientific point of view, is very great, the aid which they afford to the naturalist being precise and definite; they have held a prominent place in all classifications of animals, and Brisson adopted them exclusively as his guide in this department of his labors. Such is the beautiful harmony of nature, that the information acquired by means of these organs puts us at once in possession of a knowledge of many of the peculiarities and distinguishing habits of the animals to which they respectively belong. Moreover, the enduring nature of the materials which enter into their structure cannot but give them additional value in the eyes of the geologist.

"Cuvier, whose scientific research was at once remarkable for its elevation, and the grandeur and breadth of contemplation which it displayed, has widened, by his profound labors, the field of physical philosophy; he has lit torches in the abyss of time, to guide us in our inquiries into the past, which, were they zealously prosecuted, 'man, to whom only a momentary sojourn on earth has been accorded, would have the glory of unfolding the history of the thousands of centuries which have preceded his existence, and of the millions of beings who were not his cotemporaries.' "*

Teeth, Artificial. See Artificial Teeth, Metallic Bases, and Porcelain Teeth.

Teeth, Abrasion of. See Abrasion of the Teeth.

Teeth, Articulation of. The teeth are united to the maxillary bones by a species of articulation called *gomphoses*, which see. Those having but one root depend greatly on their nice adaptation to the alveoli, for the strength of their union. Those having three or four, often receive support from their divergence. But the periosteum lining the alveolar cavities and investing the roots, forms another band of union, as does also the vessels entering the extremities of the fangs, as well as the gums around their necks.

Teeth, Atrophy of. See Atrophy of the Teeth.

Teeth, Caries of. See Caries of the Teeth.

Teeth, Characteristics of. The teeth present marked and striking differences in their appearance. They vary in volume, color, length and arrangement, and all of these are indicative of the differences that exist in the susceptibility of these organs to disease.

Teeth in which the earthy salts or phosphate of lime exists in great abundance, are generally of a dull, heavy white, or light cream color, of a medium size, short, with thick cutting edges; those of each class of uniform dimensions, very hard, and after the middle period of life, gradually assume a faint yellowish appearance. This description of teeth is most frequently met with in persons of a sanguinous temperament, or at least, those in whom this greatly predominates; they rarely decay, and are indicative, if not of *perfect* health, of a state that bordered very closely on it at the time of their ossification.

Such teeth are occasionally possessed by persons of all nations and classes, but by far more generally, by laboring people in healthy northern latitudes. Among the inhabitants of England, Ireland, and Scotland, and more especially the middle and poorer classes, they are very common. They are also very frequently met with in the northern parts of the United States, the Canadas, the mountainous districts of Mexico, and so far as the author has had an opportunity of informing himself, in France, Russia, Prussia, and Switzerland. Those who have them, generally enjoy excellent health, and are seldom troubled with dyspepsia or any of its concomitants.

It is this kind of teeth, which Lavater

*Cuvier sur les Ossemens Fossiles. Discours. Prelim. p. cxl.

says, he has never met with, except in "good, acute, candid, honest men," and of whose possessors, it has been remarked, that their stomachs are always willing to digest whatever their teeth are ready to masticate.

But as it regards character or disposition of mind, it is, perhaps, more than questionable, whether any thing can be learned from the physiognomical appearances of the teeth, further than they may be influenced at the time of their ossification by the constitutional temperament or state of the general health, and though this may then be favorable to the production of such as possess the characteristics we have described, it may, afterwards, become so impaired as to retain but little of its original condition, while these organs, by reason of their exemption from the laws that govern the functional operations of other parts of the body, preserve theirs through life. Those who possess the temperament, however, necessary to the production of such teeth, usually have all their organs well developed, and as a very common consequence, have open, frank and cheerful dispositions. It is probable, therefore, that from having very frequently observed them in the possession of those who enjoy these happy qualities of mind, that this celebrated physiognomist was induced to regard them as an invariable accompaniment.

Teeth of this description are ossified at a time when all the operations of the body are performed in the most perfect manner. The influence of the state of the constitutional health upon these organs, at this period of life, is exemplified in the early decay of a single class, or of a pair of teeth, in each jaw, which had received their calcareous ingredients at a time when the functional operations of the body were disturbed, while all the rest, ossified under more favorable circumstances, and possessing as a consequence, the characteristics just described, will remain sound through life. Thus, whenever it happens, that a child, of an excellent constitution, is affected with any severe disease, the teeth that are at the time undergoing the process of ossification, are found, on their eruption, to differ from those which have received their earthy material at another time, when the operations of the organism were healthily performed. Instead of being of a dull or heavy white, and having a smooth uniform surface, they have a sort of chalky aspect, or are faintly tinged with blue, and have rougher and less uniform surfaces. Teeth of this description, are very susceptible to the action of corrosive agents, and as a consequence, rarely last long.

But, not willing to rest the correctness of these observations upon mere hypothesis or vague conjecture, we have, in a great number of instances, where we have met with teeth thus varying in their physical condition and appearance, taken pains to inquire of those who had had an opportunity of knowing the state of the general health of the subjects, at the different periods of the ossification of these organs, and in every case where we have been able to procure the desired information, it has tended to the confirmation of the opinion which we have here advanced. Nor have we neglected to improve the many opportunities that have presented, in the course of a somewhat extended professional career, for making these observations.

Although the operations of the economy are so secretely carried on, that it is impossible to comprehend their mechanism fully, it is well ascertained, that the phenomena that result therefrom, are influenced and modified by the manner in which they are performed. If they be deranged, the blood, from which the calcareous materials that form the basis of all the osseous tissues are derived, is deteriorated, and furnishes these earthy salts in less abundance and of an inferior quality. Hence, teeth that ossify when the system is under the influence

of disease, do not possess the characteristics necessary to enable them to resist the assaults of the corrosive agents, to which all teeth are more or less exposed, and that rarely affect those that receive their ossific matter from pure blood.

The next description of the teeth which we propose to describe, possess the following characteristics. They have a bleached, or azure blue appearance; they are most commonly long, the incisores thin and narrow, the cuspidati usually round and pointed, the bicuspides and molares small in circumference and deeply indented upon their grinding surfaces.

Teeth possessed of these characteristics are generally very sensitive, easy to be acted upon by corrosive agents, and to the ravages of which, unless great attention be paid to their cleanliness, they usually fall early victims. They are also frequently affected with atrophy, or have upon their surfaces, white, brown, or opaque spots, varying in size and number. Several are sometimes found upon a single tooth, and, in some instances, every tooth in the mouth is more or less marked with them.

But this is not the only description of teeth liable to be affected with this disease. These spots are occasionally met with on teeth of every degree of density, shape, shade and size; but they are, probably, more frequently seen on such as last described, than any other, and, besides, it often happens that they are affected with erosion on emerging from the gums, and sometimes so badly as to place both their restoration and preservation beyond the reach of art. This species of erosion, or that which takes place while the teeth are in their matrices, is caused by some morbid condition of the fluids in which they are there bathed, and is denominated congenital.

Teeth, like those under consideration, are indicative of a weakly, innate constitution—of a temperament considerably removed from the sanguinous—and of blood altogether too serous to furnish materials, such as are necessary for the building up of a strong and healthy organism. They are more common to females than males, though many of the latter have them. They are met with among people of all countries, but by far more frequently among those who reside in sickly, southern latitudes, and whose systems have become enervated by luxurious modes of living. Among the inhabitants of Great Britain, they are more rare than among those of the United States, and those who have them, seldom attain to a great age. Nevertheless, some, under the influence of a judicious regimen, and a salubrious climate, though innately delicate, as has been the case with most of those who have this kind of teeth, do acquire a good constitution, and live to a great age, while the dental apparatus, less fortunate, except the most rigid and constant attention has been paid to the use of the means necessary for its preservation, generally soon falls an early victim to the ravages of disease.

There is another description of teeth, though differing in many of their characteristics from those of which we have just been speaking, that are, nevertheless, not unlike them in their texture and in their susceptibility to deleterious impressions. The crowns of these are much larger than teeth of the ordinary size; their faces are rough and irregular, with protuberances, rising, not only from the grinding surfaces of the bicuspides and molares, but also, not unfrequently, from their sides, with correspondingly deep indentations. Their appearance is that of a muddy white. The crowns of the incisores of both jaws are broad, long and thick. The posterior or palatine surfaces of those of the superior maxillary are rough, and usually have a deep indentation in them. In the majority of cases, their arrangement is tolerably regular, though

they are more or less inclined to project. The alveolar ridges usually describe a broad circle, and evidence a development, which, though large, is, in many respects faulty. The excess in size, both here and in the teeth, seems to consist more of gelatine than calcareous phosphate.

This description of teeth decay readily, and in some instances appear to set at defiance the resources of the dentist. They are liable to be attacked at almost every point, but more particularly in their indentations and on their sides which come in contact with each other.

Persons who have teeth like those now under consideration, generally have what Laforgue calls, lymphatico-serous temperaments. Their blood is usually pale, and the fluids of the mouth, while they are poured out in great abundance, are for the most part exceedingly viscid. They do not have that white frothy appearance that is observable in those of healthy sanguinous individuals.

Laforgue enumerates among the Europeans, three classes, each differing from the others in the quality of the materials that compose their respective organisms, that can be distinguished by their teeth. The first of these classes have pure blood, a good constitution, and as a consequence, their osseous tissues are compact, their flesh firm, and all of their fluids of a healthy and good quality. The second class have sanguino-serous temperaments, and the third, lymphatico-serous.

The first of these classes, he tells us, have handsome teeth, well enameled, and of a cream color. The molares of the first dentition, of the second class, and sometimes the secondary incisores and cuspidati, are eroded, and the third class, he says, have teeth that are very white, brittle, and that are easily affected by caries.

The kind of teeth which he assigns to the third class, though frequently possessed by those who belong to it, are oftener met with among those of the second. It is among those of this class that the teeth which we last described are most frequently found.

Continuing the subject, he says, "there are in each constitution, two degrees that are distinguished by the quality of the materials that compose the teeth. The second degree of the first class has not so much of the bony structure, and their enamels are thinner than in the first degree; neither is the flesh, the blood, or any of the fluids of so good a quality. Persons of the second class are not so healthy as those of the first. There is nothing to distinguish them, except that the one constitution is more perfect than the other.

"In the second constitution, erosion is more strongly marked in the first than in the second degree, and it has its seat upon the incisores instead of the large molares of the first dentition. In the third constitution, the second degree is marked by the softness of the teeth, which are more subject to caries than in the first degree. The quality of the blood, the flesh, fluids, and the health and strength of subjects of the second and third constitutions are always in proportion to the density of the osseous system."

As teeth that are neither too large nor too small, and that have a close compact structure, and slightly tinged with yellow, are indicative of a constitution, whatever it may be at the present time, that was innately good, so those that are long, narrow, and faintly tinged with blue, as well as those that greatly exceed the ordinary size of these organs, and that are irregular in shape, and that have a rough and muddy appearance, furnish assurance of a constitution, that was, at least, originally bad. The first of the latter descriptions of teeth are more frequently met with among females than males, and among those of strumous temperaments, than those in whom this diathesis does not exist. There is another

kind of teeth that resemble these in shape and size, and also in texture, that have been more universally regarded as denoting a tendency to phthisis pulmonalis, than any other description that have attracted the attention of writers on this disease. They are characterized by whiteness, and a pearly gloss of the enamel, and are thought by many to be exceedingly durable, but we have observed that individuals who have this sort of teeth, when attacked by febrile or any other form of disease that had a tendency to alter the fluids of the body, were very subject to tooth-ache and dental caries, and that when this condition of the general system was continued for a considerable length of time, that their teeth, in rapid succession, crumbled to pieces.

Persons of sanguino-mucous temperaments, who have suffered in early childhood, from general febrile or inflammatory diseases, often have their teeth affected with what Duval calls the decorticating process, or the denudation of their enamel, resulting, no doubt, from the destruction of the intermediary substance, which constitutes the bond of union between it and the bone.

The teeth of persons who have suffered from small-pox, measles, or other severe forms of eruptive disease, or malignant inflammatory fever, during the time of their enameling, often present a very singular appearance, unlike those that are affected with the ordinary kind of erosion, where the edges of the enamel around the part affected are rough and brittle, are smooth, or comparatively so, while the injury is confined to only very small and regularly circumscribed spots, which extend in a direct horizontal line across such of the teeth as have been attacked by it. These pits are sometimes so close to each other that half a dozen or more of them are united so as to form a sort of narrow and irregular groove. Two, and sometimes more, of these grooves or rows of pits extend across the same teeth, but this happens only in those cases, in which the subjects have either had relapses, or been affected, during the enameling process, with more than one of the diseases that gives rise to their formation.

There are many other characteristics which the teeth present in shape, size, density and color, and from which, valuable inductions might be made, both with regard to the innate constitution and the means necessary to their preservation; but as the limits we have prescribed to this article, will not admit of their consideration, we shall conclude by observing, that the appearances of these organs vary almost to infinity. Each is indicative of the state of the general health at the time of their formation, and of their own physical condition and susceptibility to injury.

Teeth, Chemical Constituents of. See Tooth-Bone. Also, Enamel of the Teeth.

Teeth, Denuding of the. See Denuding of the Teeth.

Teeth, Development of Pulps and Sacs of. In the development of the pulps and sacs of the human teeth, is exhibited one of the most curious and interesting operations of the animal economy. From small mucous papillæ, observable at a very early period of intra-uterine existence, they, in obedience to certain developmental laws, gradually increase, until they attain the size of the crowns of the teeth they are respectively destined to form. They then begin to ossify, and this process, commencing on the cutting edges of the incisores, the points of the cusps of the cuspidati, bicuspides, and eminences of the molares, extends over the whole surface of their crowns, until they are invested in a complete layer of bone, and so, layer after layer is formed, one within the other, until nothing remains but a small cavity in each tooth which contains the residuum of the pulp. In

the meantime, the enamel and roots of the teeth begin to form.

Eustachius, who wrote in 1563, was the first to give any thing like a correct description even of the position and arrangement of the teeth in the jaws previous to their eruption. Hemard, a French anatomist, wrote about nineteen years later, but did little more than repeat the description given of the teeth by Eustachius. Nor did Albinus, author of several anatomical works, published in the early part of the eighteenth century, throw much additional light upon the subject, and since his time, the manner of the formation of the teeth has successively been a subject of inquiry by Hunter, Jourdain, Herbert, Blake, Fox, Cuvier, Serres, Delabarre, and others, but the combined researches of all these writers, have failed to furnish accurate information with regard to the early stages of the formation of these organs. The best description which had been given of the progress of the teeth, previously to the year 1839, was by Mr. Thomas Bell, but it was reserved for Mr. Goodsir to trace the development of these organs, almost from the moment of the appearance of the germs of the first set, as simple mucous papillæ, until the completion of the second, and so minutely and accurately has he done this, that little seems to remain for future anatomists in this interesting field of physiological inquiry. Relying upon the accuracy of his researches, which are described in the Edinburg Medical and Surgical Journal, for January 1st, 1839, the author will here give a summary of what he says upon the subject.

At about the sixth week, in the upper jaw of the human embryo, a deep groove, lined with mucous membrane, may be seen between the lip and a semi-circular lobe, (which is the primitive condition of the palate,) which terminates on each side, behind the former. This groove gradually widens from behind forwards, and a ridge, commencing posteriorly and running in the same direction, rises from its floor, and divides it into two others. The inner one constitutes the *primitive dental groove*, and the outer is formed by the outside of the alveolar process and the lip. The inner side of this ridge, "after being cut into three grooves," "of which the posterior is the deepest, terminates in a rounded lobule, which is continuous with it anteriorly, while externally, internally, and posteriorly, it is bounded by that portion of the original groove which was situated behind the semi-circular lobe."

"At some period between the sixth and seventh week, a longitudinal portion is cut off, from the internal posterior edge of the semi-circular lobe," extending forwards to a middle bulging of the lobe, and to a bulging posteriorly which becomes isolated, and assumes the appearance of an "ovoidal papilla, the long diameter of which is anterio-posterior." This papilla is the germ of the first temporary or milk molar, and the first tooth-germ which appears. It is a simple, free granular papilla, at this period. About the eighth week, another papilla of an ovoidal, granular form, appears between the middle and anterior curve of the ridge, on the floor of the same groove, which is the rudiment of the temporary cuspidatus or canine tooth. The germs of the incisores; the central first, and afterwards the lateral, make their appearance during the ninth week, in the form of mucous papillæ. The sides of the groove on each side of the first molar papilla approach each other during the tenth week, and processes, before and behind the germ, from either side are sent off, which meet, unite, and enclose it in a follicle. In the mean time a similar follicle is gradually forming round the germ of the cuspidatus, and towards the end of the tenth week, the papilla of the second temporary molar shows itself behind

the first, at the side of the rounded lobule, which terminates the outer ridge posteriorly, and from which it seems to be a production.

The incisores progress regularly during the eleventh week, and septa pass from the outer to the inner wall between them, so that each becomes enclosed in a follicle. In the meantime, the second molar papilla gradually increases, and it, in turn, becomes enclosed in a follicle, formed by the gradual folding of the terminal lobule of the outer ridge around it. There still remains a portion of the primitive groove behind the follicle of the last molar germ. The last molar follicle is completed during the thirteenth week, and the different papillæ, instead of remaining simple, rounded masses of granular matter, assume the shape of the future teeth they are respectively destined to form. During this period the papillæ grow faster than the follicles, and, consequently, protrude from them. In the meantime, the mouths of the follicles are becoming more developed, "so as to form opercula, which correspond in some measure with the shape of the crowns of the future teeth." The incisor follicles have two; one anterior and one posterior; the first larger than the latter; the cuspidati follicles have three—one external and two internal; the molar follicles, as many as there are protuberances upon their grinding surface.

By the fourteenth week, the outer and inner lips of the primitive dental groove have increased so much as to meet or apply themselves together in a "valvular manner, giving to the papillæ the appearance of having receded back into their follicles, so that they are almost completely hid by their opercula. The development of the germs and follicles of the teeth of the lower jaw is almost precisely similar to those of the upper, though rather more tardy in their appearance.

At the last mentioned period, "*the primitive dental groove,*" occupies a higher level than it did at first, and "may be now denominated the *secondary dental groove,*" and it is at this time that provision is made for the production of the ten anterior permanent teeth. It consists in the appearance of crescent-shaped depressions behind the inner opercula of the follicles; first, of the central incisores, then of the laterals, next of the cuspidati, and, lastly, of the first and second temporary molares. This occurs about the fourteenth or fifteenth week, and about the same time, the opercula approach each other and close the mouths of the follicles, but without adhering, beginning with the central incisores, next with the lateral, the cuspidati, and ending with the second molares. Commencing from behind and proceeding forwards, the lips and walls of the secondary groove now begin to adhere; the follicles have become sacs; the papillæ, the pulps of the temporary teeth, and the crescent-shaped depressions, "*cavities of reserve,*" from which the pulps and sacs of the teeth of replacement are produced. The *primitive dental groove*, which has now extended back beyond the second temporary molar, "retains here its original appearance;" it has a "grayish yellow color," and its edges continue "smooth for a fortnight or three weeks longer," for the "development of the papilla and follicle" of the first permanent molaris.

The *cavities of reserve* for the teeth of replacement have, at this time, the appearance of small "compressed sacs, with their sides in contact, and situated between the surface of the gum," and the sacs of the milk teeth. From the time the follicles of the temporary teeth close, they "become gradually moulded into their peculiar human shape. The molar pulps begin to be perforated by three canals, which, proceeding from the surface to their centres, gradually divide their primary

base into three secondary bases, which become developed into the fangs of the future teeth." The sacs, in the meantime, "grow more rapidly than the pulps," leaving an intervening space, "in which is deposited a gelatinous granular substance, at first in small quantity, and adherent only to the proximal surfaces of the sacs, but, ultimately about the fifth month," becomes "closely and intimately attached to the whole interior of these organs, except for a small space of equal breadth, all around the base of the pulp, which space retains the original gray color of the inner membrane of the follicle, and, as the primary base of the pulp becomes perforated by the canals formerly mentioned, the granular matter sends process into them, which adhering to the sac, reserve the narrow space, described above, between themselves and the secondary bases. These processes of granular matter do not meet across the canals, but disappear near their point of junction. The granular matter is closely applied, but does not adhere to the surface of the pulp," but is exactly moulded to all of its eminences and depressions.

At the fundus of the sac, each branch of the dental artery sends of small branches to the outer membrane of the sac, and the "true" or inner membrane is supplied from arteries from the gums, after having inosculated with the twigs sent off by the dental artery, but none of these are sent to the granular substance. "The dental branch, after giving off these saccular twigs, divides into a number of contorted ramifications between the base of the pulp and the sac, which from smaller ramusculi are transmitted into the pulp itself. In the case of the molares, the main branches divide into three secondary branches, one for each of the secondary bases. From these" the sacs and pulps are supplied with blood.

During these changes in the sacs of the temporary teeth, "the follicle of the first permanent molar closes, and granular matter is deposited in its sac." Below the sac, of this tooth, or between it and the gum, there is a cavity of reserve "of delicate mucous membrane," formed by the union of the edges of the secondary groove, from which the materials for the formation of the second and third permanent molars are derived.

But previous to this period a "raised border and zone-like vascularity" has formed around the apices and eminences of the pulps of the temporary teeth, and almost simultaneously with which, the process of ossification commences. The inner surface of the granular matter is, at the same time absorbed; and, ultimately, becomes so thin as to render the subjacent vascularity apparent. The absorption continues, and by the time the surface of the crown has become covered with a layer of bone, no remains of it are perceivable. As yet little change has taken place in the cavities of reserve for the teeth of replacement, or those for the two posterior molares. The former, however, "have been gradually receding from the surface of the gum, so as to be posterior instead of inferior, to the milk sacs. The two or four anterior, about the fifth month begin to dilate at their distal extremities, across which a fold appears, which is the germ of the future pulp, lying in the direction of the cutting edge of the future tooth; and at the proximal or acute extremities of the cavities, two other folds, an anterior and a posterior, appear." These are analogous to the opercula of the follicles of the temporary teeth. The bulgings at the distal extremities of the cavities of reserve soon assume the appearance of dental pulps, and the mouths of these cavities are gradually closed.

"The cavities of reserve have now become tooth-sacs, and under this form they continue to recede from the sur-

face of the gum, imbedding themselves in the sebaceous cellular tissue, which has all along constituted the external layer of the milk-sacs, and in which the larger saccular vessels ramify before arriving at the true mucous membrane of the sacs. This implantation of the permanent, in the walls of the temporary tooth-sacs, give the former the appearance of being produced by a *gemmiparous* process, from the latter." It was this, says Mr. Goodsir, in a note, that deceived Dr. Blake, and led him to believe that the sacs of the teeth of replacement originated from the temporary teeth-sacs; an error into which most subsequent writers have fallen.

By the sixth month, they have formed across the alveolar groove, and nitches are now formed on the "posterior walls of the alveoli" for the sacs of the permanent teeth. Up to the eighth, and even the ninth month, the sac of the first permanent molaris, is imbedded in the maxillary tuberosity. At or little before birth, the roots of the temporary incisores begin to be formed, and "in the accomplishment of which," says Mr. Goodsir, "three cotemporaneous actions are employed, viz. the lengthening of the pulp; the deposition of tooth-substance upon it; and the adhesion to the latter of that portion of the inner surface of the sac which is opposite to it." By the time the central incisores begin to appear through the gum, the jaw has lengthened sufficiently for the first permanent molaris to begin to assume its "proper position, in the posterior part of the alveolar arch." During the advance of the temporary teeth, the sacs of the permanent continue to recede, and to "insinuate themselves" "between the sacs of the former," until "they are only connected by their proximal extremities" through the alveolo-dental foramina, or *iternia dentium* of Delabarre, to the gum.

The passage of a tooth through the gum having been described in article Dentition, the author does not deem it necessary to introduce here the description of Mr. Goodsir.

The vessels which go to the sacs of the permanent teeth are derived, first, from the gums, but they ultimately receive vessels from the sacs of the temporary teeth, which uniting with the others, eventually retire into the permanent dental canals.

About the seventh or eighth month after birth, the cavity of reserve behind the first permanent molaris, "begins to lengthen, to bulge out, and to curve backwards and upwards at its posterior extremity, under the form of a sac, into the mass of the maxillary tuberosity; a papilla soon appears in its fundus, a process of contraction separates it from the remainder of the cavity of reserve, which still adheres to its proximal wall by one extremity, while by the other it is continued into the substance of the gum under the anterior molar. This new sac, which is that of the second permanent molar, now occupies the position in the maxillary tuberosity, which the first permanent did before it." As the jaw lengthens, it leaves this position and drops downwards and forwards on a level with the other teeth. In the meantime, the remaining extremity of the cavity of reserve sends off the papilla and sac of the third molar, or dens sapientiæ, and this, as the other molares had done, takes a position in the maxillary tuberosity, where it remains until the jaw lengthens sufficiently for it to take its place behind the second molar, which it does at from the seventeenth to the twentieth year.

The development of the teeth in the lower jaw commences, as in the upper, "in a deep narrow groove, situated between the lip and a semi-circular lobe, but which, instead of terminating in a simple curve posteriorly, as in the upper jaw, becomes shallow, and assumes a sigmoidal form upon the surface of the posterior bulbous ovoidal portion of the lobe." The lip, about the seventh week, "becomes very loose, and sepa-

rates widely from the lobe, between which and the former a ridge appears, growing from behind forwards, and dividing the original groove into two, an outer one, the labial duplicature of the mucous membrane; and an inner, the *primitive dental groove*. This ridge, which as in the upper, does not yet extend to the incisive portion of the jaw, is flat, or on the same continuous plane with the bottom of the dental groove, and its lip is turned out, or overhangs the labial mucous membrane. The inner lip of the groove is formed by the semi-circular lobe, which has become thin, and arched over the groove, particularly anteriorly, where it is cut into four festoons, two on each side of the median line; and posteriorly, where it still retains the appearance of an oval lobe, from under which the outer lip or ridge appears to proceed. The groove curves inwards between the two lips posteriorly, under a form which is evidently a development of the original sigmoidal groove.

"Near the posterior extremity of the groove, there is an elevation of a small portion of its floor, which speedily becomes the germ or papilla of the inferior anterior milk molar tooth—the second tooth which appears in the primitive development of the human body." This elevation, lengthened from behind forwards, and flattened transversely, becomes a papilla during the eighth week, and about the same time the canine or cuspid papilla makes its appearance a little farther forward. The dental groove, in the mean time, advances forward to the median line, and during the next week the papillæ of the incisores, the centrals first, and afterwards the laterals make their appearance. The papillæ of the eight anterior teeth continue to increase, and soon become enclosed in follicles. The second temporary molar papilla makes its appearance between the eleventh and twelfth week, and the same provision for the production of the teeth of replacement is made in the lower as in the upper jaw. As the jaw lengthens, the papillæ of the permanent molares are developed in the manner as before described, "the coronoid process acting the part the maxillary tuberosity did in the upper jaw."

For a description of the manner of the formation of the enamel, see Enamel of the Teeth.

On the laws regulating the development of the pulps and sacs, and the period for the appearance of each of the tooth germs, Mr. Goodsir says: "In the description which has been given of the earlier phenomena of dentition, it will be perceived that many of them range themselves under the laws recognized by MM. G. St. Hillaire and Serres, viz. the law of symmetry (loi de symmetrie,) the law of conjunction (loi de conjugaison,) the law of balancing or antagonism (le balancement des organes,) and the law of eccentric development (loi du developpement excentrique.)

"The primitive and secondary dental grooves, the follicles, the cavities of reserve, the osseous alveoli of the milk teeth and their septa, are all formed originally of two halves, which ultimately join according to the laws of symmetry and conjunction.

"The pulps of the milk teeth with their notched laminæ are productions from the external lip or ridge of the groove. The inter-follicular septa, and the osseous alveolar septa, are also developed from without inward, (loi du developpement excentrique.)

"I have already pointed out the beautiful example of antagonism which exists between the median and lateral elements of the inter-maxillary system, and I may now point out, from among the facts formerly detailed, a few instances of the same kind, which must be referred to the same general expression, (loi de balancement.)

1. "Before the tenth week the upper lip is full and prominent, but at that

time it begins to recede, and gradually to disappear anteriorly, so as to expose the follicles and papillæ of the incisor teeth. It afterwards begins to regain its former position and size, and the fourteenth or fifteenth week it is as large as the inferior, which from the first, has not changed its appearance.

"At the tenth week, when the lip begins to recede, the maxillary palate advances its anterior extremity, so as to conceal, in some degree, the inter-maxillary palate, (median and lateral lobules.) When the middle of the lip has disappeared, the maxillary has not only encroached upon the inter-maxillary, but has also thrown itself into a bundle of irregular folds at its anterior parts. As the maxillary palate retires, and the folds become regular crenated rugæ, the anterior part of the lip again appears, and at the fifteenth or sixteenth week, it is full and prominent, when the maxillary palate has retired to its proper position.

2. "When the outer lip of the primitive dental groove sends off the laminæ, which constitute the greater part of each of the interfollicular septa, and the floor of the secondary groove, the lip itself, almost disappears.

"The inner lip, again, which contributes a very small share towards the accomplishment of this process, becomes so much enlarged as to cover the whole groove.

3. "The external and internal lips of the primitive dental groove are, originally, equally prominent. The former, when it sends off the inter-follicular septa, diminishes, while the latter increases. When all the follicles of the primitive groove have been completed, the external lip begins to increase, and the internal to diminish. This increase of the external lip goes on after the closure of the secondary groove, until, at the fifth month, it becomes very prominent, and is divided into an incisor, a canine and molar portion, each of which has a general similarity in shape to the acting portions of the corresponding divisions of the future tooth ranges. As long as it remains in this condition, it is employed by the infant as a masticating organ. During this period the internal lip has altogether disappeared, except a small portion posteriorly; but a short time before the milk teeth appear, it again increases, and the raphe of the dental groove, instead of being hid behind the base of the external lip, is situated on the ridge of the dental arch, which now, as at first, is composed of two equally developed portions. The raphe forms a little border in the situation just mentioned, and is familiar to the eye of the surgeon, who, by its disappearance at any particular point, can satisfy himself of the proximity of the milk tooth under it."

Careful observation of the Whole Process of Dentition in Man leads to the following conclusions:

"*Milk Teeth.* 1. The milk teeth are formed on both sides of either jaw, in three divisions, a molar, a canine, and an incisor, in each of which dentition proceeds in an independent manner.

2. "The dentition of the whole arch proceeds from behind forwards—the molar division commencing before the canine—and the latter before the incisor.

3. "The dentition of each of the divisions proceeds in a contrary direction, the anterior molar appearing before the posterior, the central incisor before the lateral.

4. "Two of the subordinate phenomena of dentition also obey this inverse law, the follicles closing by commencing at the median line, and proceeding backwards, and the dental groove disappearing in the same direction.

5. "Dentition commences in the upper jaw, and continues in advance during the most important period of its progress. The first tooth germ which appears, is that of the *superior* anterior

molar, which precedes that of the *inferior* anterior molar.

"The apparent exception to this law, in the case of the inferior incisor, has already been explained.

"*Permanent Teeth.* 6. The germs of the permanent teeth, with the exception of that of the anterior molar, appear in a direction from the median line backwards.

7. "The milk teeth originate, or are developed, from the mucous membrane.

8. "The permanent teeth, also originating from mucous membrane, are of independent origin, and have no connection with the milk teeth.

9. "A tooth pulp and its sac must be referred to the same class of organs as the combined papilla and follicle from which a hair or feather is developed, viz. bulbs."

TEETH, DIFFERENCES BETWEEN TEMPORARY AND PERMANENT.—The temporary teeth differ from the permanent in many particulars. The former are smaller and of a less firm texture than the latter, "and their general characteristic forms and prominences," to use the language of Mr. Bell, "much less strongly marked. The incisores and cuspidata of the lower jaw are of the same general form as the adult, though much smaller; the edges are more rounded, and they are not much more than half the length of the latter. The molars of the child, on the contrary, are considerably larger than the bicuspides which succeed them, and resemble, very nearly, the permanent molares.

"The roots of these teeth, the molares of the child, are similar in number to those of the adult molares, but they are flatter and thinner in proportion, more hollowed on their inner surfaces, and diverge from the neck at a more abrupt angle, forming a sort of arch."

TEETH, DIFFERENCES IN THEIR LIABILITY TO DECAY. See Caries of the Teeth.

TEETH, DISEASES OF. See Caries of the Teeth. Also, Atrophy; Exostoses, Necrosis; Denudation of; Spina Ventosa, &c.

TEETH, DISPLACEMENT OF, BY A DEPOSIT OF BONE IN THEIR SOCKETS. The teeth are sometimes forced from their sockets by a deposition of osseous matter in the alveolar cavities. This occurs more frequently with the incisores than with any of the other teeth, and it rarely happens that more than one is affected by it at the same time. Although the deposition generally commences at the bottom of the cavity, it sometimes takes place on one side, forcing the tooth against the opposite wall, which suffers a corresponding loss of substance. In this way, one, and sometimes two or more teeth, are forced asunder, and caused to take an improper position. Sometimes the central incisores are thus forced apart a quarter of an inch; at other times they are forced against each other and caused to overlap. When the deposition of bone is confined to the bottom of the socket, the tooth is forced from the alveolar cavity, and in those cases where the upper and lower teeth meet at each occlusion of the jaws, it often occasions great inconvenience.

The cause of this affection is supposed to be irritation of the alveolo-dental periosteum, and occasioned, most probably, in the majority of cases, by the pressure against the tooth, and it is doubtless, favored by some peculiar constitutional diathesis.

When a tooth is thus caused to protrude from its socket, it should, from time to time, be filed off even with the other teeth, but in performing this operation, great care should be taken not to jar the tooth. Mr. Bell, however, objects to this. He says, that "instead of remedying the evil, it increases it, by exciting to a still greater degree, the action of the vessels of the periosteum; whilst it also shakes and ultimately loosens the affected tooth." But this

objection does not seem to be predicated upon facts or sound reason. The constant striking of a tooth thus circumstanced against its antagonist, must, of necessity, jar it more than the action of a file; and we have usually observed, that teeth thus affected, when left to themselves, generally soon become loose, and if they did not, in a short time, drop out, were rendered entirely useless. On the other hand, the author has known them, by being filed off from time to time, to remain comparatively firm in their sockets for years.

Teeth, Deviation in Growth and Form of. There are no organs of the body which are subject to more remarkable deviations in their form and growth than the teeth. Albinus mentions a case where two teeth, one on the right and the other on the left side, were found "enclosed in the roots of those processes which extend from the maxillary bones to the eminences of the nose." He says they were large and resembled the canine teeth, with their points directed towards the eyes, and convex posteriorly and concave anteriorly. It would seem, from the description he has given, that the temporary canines were still present, and that from some cause, not easy of explanation, a wrong direction had been given to the growth of the permanent ones, which were found imbedded, as above stated, in the substance of the maxillary bone. Mr. John Hunter mentions a case of a somewhat similar character.

The following is in the words of Mr. G. Waite: "While I was prosecuting my anatomical studies, I was struck with the appearance of a cuspidatus of the upper jaw; it was short, and appeared as if the body of the tooth was in the jaw, and that it was the tip of the root that presented itself. Upon further examination I found this verified; and after the cranium and lower jaw were properly macerated and cleansed. I found one of the lower bicuspides in the same manner."

In the anatomical cabinet of the Faculty of Medicine in Paris, there is an anatomical preparation, in which is displayed two inverted supernumerary teeth in the base of the maxillary bone, and Maury mentions a case in which the right central incisor pointed towards the wing of the nose. Fully developed teeth have also been found in the maxillary sinus. There is in the upper jaw of an adult, in the Museum of the Baltimore College of Dental Surgery, and between the central incisores, in the substance of the bone, a supernumerary tooth, the crown of which points upwards towards the crest of the nasal plates of the two bones. The whole tooth is about one inch in length, and the apex of the crown is nearly on a level with the floor of the nasal cavities.

Mr. J. Pearson, a dentist of New Orleans, gives, in a letter to the author, the following description of a cuspid tooth. He says, "the tooth is perfectly sound, and has two separate and distinct roots; one is greatly divergent from the other and main root, with a second crook, forming an angle of about 45°. The parent (large) root is much flattened internally, as though an effort had been made to produce a third fang. The periosteum had become diseased—causing absorption of the alveolus; in addition to which, an abscess had formed at the extremities of the roots. These combined circumstances greatly facilitated the removal of the tooth, for had no absorption taken place, I think it hardly possible to have removed it without fracturing the smaller root."

Accompanying the above description was a drawing of the tooth, which exactly corresponds with it, but this, we must omit.

Teeth sometimes deviate as much in form as in growth. Mr. Fox gives a drawing of a tooth shaped like the letter S, and there is a central incisor in the Museum of the Baltimore College of Dental Surgery which has its root bent up upon the labial surface of the

crown, and the author has two teeth in his possession in which the roots, while in a pulpy state, were reflected upon the crowns, and in this state were ossified. The teeth were presented to him by his brother Dr. John Harris, who extracted them from the right side of the upper jaw of a young man about nineteen years of age.

The incisores and cuspidati sometimes, though very rarely, have two roots, the bicuspides three, and the molares four, five and occasionally six. Other varieties of deviation, both in growth and form, might be mentioned, but the foregoing will suffice.

Teeth, Eruption of the. See Teeth, development of the pulps and sacs of, on dentition.

Teeth, Exostosis of. See Exostosis of the Teeth.

Teeth, Extraction of. See Extraction of the Teeth.

Teeth, Eye. The cuspidati of the upper jaw.

Teeth, Filling of. See Filling Teeth.

Teeth, Fractures of the. See Fractures of the Teeth.

Teeth, Formation of. See Teeth, development of pulps and sacs of.

Teeth, Irregularity of. See Irregularity of the Teeth.

Teeth, Malformation of. See Teeth, deviation in the growth and form of.

Teeth, Milk. The temporary teeth.

Teeth, Molar. The last three teeth on each side, in each jaw.

Teeth, Morbid Effects of Diseased. The morbid phenomena resulting from the irritation of diseased teeth. See the various articles on the diseases of the teeth.

Teeth Moulds. Matrices in plaster of paris, or metal, employed in moulding porcelain teeth. See Porcelain Teeth.

Teeth, Neck of the. Collum dentium.

Teeth, Necrosis of. See Necrosis of the Teeth.

Teeth, Osseous Union of. Examples of osseous union of two or more teeth, though rare, are nevertheless occasionally met with. Mr. Fox has given drawings of four examples, which Mr. Bell says, are still to be seen in the Museum of Guy's Hospital, London, and in 1835, the author was consulted, while on a visit to Richmond, Va., by two gentlemen who furnished similar examples. The crowns of the central incisores of the upper jaw of one, were perfectly united, the posterior surface presenting the appearance of one broad tooth, while the anterior had a vertical groove in the centre, indicating the crowns of two teeth. In the other case, the crowns of the right central and lateral incisores were united anteriorly so as to exhibit the appearance of but one tooth, but when viewed from behind, a vertical groove was seen passing through the centre. There are, also, three examples of osseous union of the crowns of deciduous teeth in the Museum of the Baltimore College of Dental Surgery, besides two of a union of the roots of different. One of the latter consists in the union of the roots of two superior molares, by exostosis, and the other, of the union of three molares, also, by exostosis. The first was presented to the author for the museum of the above mentioned institution, by Dr. Blandin, of Columbia, S. C. and the other for the same purpose, by Dr. Hawes of New York.

Since writing the above, two other examples of osseous union of the roots of molar teeth have been communicated to the author by letter, one by Dr. Elbridge Bacon, of Portland, Maine, and the other by Mr. J. Parsons of New Orleans.

Teeth, Permanent. The adult teeth. The teeth of second dentition.

Teeth, Premolar. The bicuspides, or as they are called by some French writers, the small molares.

Teeth Set on Edge. A peculiarly disagreeable sensation in the teeth resulting from the contact of acids. Teeth thus affected are sometimes so sensitive that the slightest touch is productive of pain, and they have, seemingly, a roughness on their cutting edges and grinding surfaces, which is not felt at any other time. Teeth which have suffered considerable loss of substance from mechanical abrasion are more subject to this affection than those which have a perfect coating of enamel. There is one thing connected with it, which it is not easy to explain. It is this. Persons who have lost all their natural teeth and wear artificial substitutes, are sometimes troubled with it. Several examples of the kind have fallen under the observation of the author.

Teeth, Supernumerary. The production of supernumerary teeth rarely occurs in the posterior part of the mouth, but usually happens in the anterior and more frequently in the upper than the lower jaw. Productions of this sort are generally unsightly in their appearance, and disfiguring to the mouth, the teeth being generally round and of a conical shape, and situated between the central incisores, or projecting over them. Sometimes, however, they appear behind these teeth, and at other times come out between them and the lateral incisores. Mr. Fox has given engravings of three remarkable cases. "In one," to use his own language, "there were two supernumerary teeth, of the conical kind, which were placed together, and had come behind and between the central incisores, which they had thrust forwards. The lateral incisores grew in a line even with the supernumerary teeth, behind the central incisores and cuspidati, and so formed a second row. This was the most conspicuous deformity of the teeth I ever saw, for the mouth could not be opened to speak, without completely presenting them to view. In the other two cases the supernumerary teeth resembled bicuspides of the lower jaw; they had large crowns, with depressions at their bases, and by thrusting the other teeth into very improper situations, produced an appearance of a double row."

The author once saw two right lateral incisores in the lower jaw which were so well formed and arranged that it was impossible to determine which of the two ought to be considered as the supernumerary. He has also met with several other cases of supernumerary teeth in the lower jaw which so closely resembled the incisores that it was impossible to discover any difference in them, and Mr. Bell mentions a case of a like nature.

It is generally believed that supernumerary cuspidati never occur, and until quite recently the author was of this opinion; but he has a plaster model of the upper jaw, presented to him by Dr. E. Townsend, of Philadelphia, for the museum of the Baltimore College of Dental Surgery, representing three cuspidati so much alike that no difference in shape can be detected. There is, also, on this same model, six well developed bicuspides, three on each side. Supernumerary bicuspides, however, are seldom more than one-fourth as large as the natural bicuspides; they generally have oval crowns and are commonly situated on the outside of the dental range, partly between the other teeth. Supernumerary teeth, when situated farther back in the mouth are usually small, but often resemble, in shape, the dentes sapientiæ. The author has three supernumerary teeth in his possession which came out behind the dens sapientiæ in the upper jaw.

Teeth, Tartar of. See Salivary Calculus.

Teeth, Temporary. The teeth of first dentition; milk teeth; deciduous teeth.

Teeth, Temporary, Importance of the Preservation of. It is supposed by some, that inasmuch as the temporary teeth are designed to sub-

serve only the wants of childhood, it is of little consequence, whether they remain until they are removed by the operations of the economy to give place to a larger, stronger, and more numerous set, or are lost a year or two earlier. This is an error which has been productive of great mischief, as it has led to an almost total neglect of the means for the preservation of their health.

Disease of the temporary teeth and their sockets interferes with the healthy formative process of the permanent teeth; and their loss, before these are ready to come forward and take their place, is followed by a contraction of the alveolar border, and consequent irregularity of the organs of replacement. It also disturbs, according to its nature and extent, the functional operations of the whole organism. Their preservation, therefore, until they are removed by the operations of the economy, to give place to more hardy successors is an object of no trifling importance. With a view to this, they should be subjected to such hygienic, and, if necessary, therapeutical treatment, as will secure their preservation until, by the destruction of their roots, they are loosened and drop out, except their removal is called for at an earlier period by the eruption of the permanent teeth in an improper place, or by disease in their sockets, or pain which cannot otherwise be relieved. The first consists in keeping the teeth constantly clean, which may be done with a small, soft and elastic brush, waxed floss silk, proper tooth powders, and the argillaceous tooth polisher, and the latter, by such treatment as may be indicated by the nature of their diseases. See Filling Teeth, and Filing Teeth.

Teeth, Temporary, Shedding of. See Second Dentition.

Teeth, Transposition of. It sometimes happens, that a central incisor is situated between the lateral of the side to which it belongs, and the cuspidatus, or that a right central is situated in the place of the left, and the left in the place of the right; or that a lateral incisor is situated between the cuspidatus and first bicuspis, and at other times a cuspidatus is found between the first and second bicuspides. This description of aberration in the position of the teeth is supposed to be the result of a transposition of the dental pulps.

Teeth, Third Set. See Dentition, third.

Teeth, Vitreous Substance of the. The enamel of the teeth.

TEETHING. Dentition.

Teething, Difficult. See Dentition, morbid.

TEG'MEN. An integument.

TEGUMEN. An integument.

TEG'UMENT. *Tegumentum;* from *tego*, to cover. A cover or covering; an integument. In *Anatomy*, by the term teguments, is comprehended the structures generally which cover and protect the animal body, as the cuticle, rete mucosum, skin and adipose membrane.

TELA. From *texo*, to weave. Applied, in *Anatomy*, to the cellular membrane, from its resemblance to a web of cloth.

Tela Cellulosa. The cellular tissue.

TELAMO'NES. Bandages; dressings for wounds.

TELANGIEC'TASIS. From τηλος, far, αγγειον, vessel, and εκτασις, dilatation. The dilatation of vessels, as in nævus maternus, and aneurism.

TELEPH'IUM. Sedum telephium. Also, a term applied by the ancients to an ulcer, difficult to cure, because the wound inflicted on Telephus by Achilles, degenerated into an ulcer of this kind.

TELLU'RIUM. A metal of a color between tin and silver, inclining to steel-gray.

TEM'PERAMENT. From *tempero*, I mix together. The constitution, as determined by the predominance of certain constituents of the body. Among the ancients it was supposed that the

manifestations of the functions were *tempered*, or so determined by the predominance of any one of the four humors, then recognized, namely: *blood*, *lymph*, *bile*, and *atrabilis* or black bile, as to give rise to a *sanguine*, *phlegmatic* or *lymphatic*, *choleric* or *bilious*, and *atrabilious* or *melancholic* temperament. At present five temperaments are recognized, namely: 1. The *sanguine*, or *sanguineous*; 2. The *bilious*, or *choleric*; 3. The *melancholic*, or *atrabilious*; 4. The *phlegmatic*, or *lymphatic*; and 5. The *nervous* temperament.

TEM'PERANCE. Habitual moderation in the indulgence of the natural appetites and passions.

TEMPERANTS. Sedatives; remedies which allay irritation and moderate the activity of the vascular system.

TEM'PERATURE. The degree of heat which exists in any given situation or body as indicated by the thermometer.

TEMPERIES. Temperament.

TEM'PERING. An operation for rendering steel or iron more compact and hard, or soft and pliant, according to the purposes for which they are required. Surgical and dental instruments require to be tempered in the most exact and best manner. If they are too hard or two soft, they will not answer the purposes for which they are designed. For tempering dental instruments, Dr. Elliot gives the following directions: "The piece to be hardened should be heated evenly to a dark cherry color by the light of the sun, then plunged with some rapidity into the bath" (cold water) "and allowed to to remain until cold; it should then be polished, and the hardness of the temper reduced by heat."

"Very few instruments require to be as hard as the steel is found to be on removing it from the bath; besides, in this condition, it breaks almost as easily as glass, but acquires on drawing the temper, a remarkable toughness.

"The several different tempers that are obtained by heating steel after it has been once hardened, are indicated correctly by the color the metal takes on, and these tempers are known by the names of the colors which indicate them; so that we say when speaking of a spring, it was drawn to a blue; or of a lancet, it was drawn to a straw color; because these are the proper colors that indicate the proper temper for the spring and lancet respectively.

"A piece of polished steel, when exposed to heat, takes on the following colors in succession, viz. 1st, a straw-color; 2d, yellow; 3d, dark yellow; 4th, copper color; 5th, purple; 6th, blue; 7th, whitish blue. The first of these tempers is suitable for a gum-lancet, the second for broaches and scaling instruments, the third for rose-drills, the fourth for excavators, the sixth for springs, and the seventh for filling instruments; this last temper is used merely to give to the piece a greater degree of firmness.

"In hardening an instrument, not only the cutting part, but as much of the shank as requires strengthening, should be plunged into the bath; and in drawing the temper the point should first be partly polished, so that the colors produced by heat, may readily be distinguished; and while the temper of the shank is being reduced to a whitish blue in the flame of a spirit lamp, the point should be held between the beaks of a pair of large pliers, to prevent it from being drawn too low, and then it may be released from the pliers, and the heat allowed to run down until the point assumes the required shade."

TEM'PLE. From *tempus*, time, because the hair first begins to turn gray here. The lateral parts of the forehead covered hy the temporal muscles.

TEM'PORA. The temples.

TEM'PORAL. *Temporalis*. Belonging, or relating, to the temple.

Temporal Aponeurosis. A strong aponeurosis which is attached to the

whole of the curved line of the temporal bone, and the malar and zygomatic arch.

Temporal Artery. *Arterea temporalis.* A branch of the external carotid, which passes up on the temple.

Temporal Bone. *Os temporis.* A bone situated on the lateral and inferior part of the cranium, and is usually divided into three parts. 1. The *squamous;* 2. The *mastoid,* and 3. The *petrous portion.*

Temporal Fossa. An excavation on each side of the head in which the temporal muscle is situated.

Temporal Muscle. A muscle situated on the temple, arising from the semi-circular ridge commencing at the external angular process of the os frontis, and extending along this and the parietal bones. Also, from the surfaces below this ridge formed by the frontal and squamous portion of the temporal and sphenoid bones; likewise from the under surface of the temporal aponeurosis, and is inserted, after converging and passing under the zygoma, into the coronoid process of the lower jaw, which it surrounds on every side by a dense, strong tendon. The office of this muscle is to draw the lower jaw upward, as in the cutting and rending of food.

Temporal Nerves. The nerves distributed to the temporal region, and furnished by the inferior maxillary branch of the fifth pair. The name has also been given by Sömmering, to the division of the seventh pair, distributed to the temporal region.

TEMPORO-MAXILLARY ARTICULATION. The articulation of the lower jaw on each side to the glenoid cavity of the temporal bone. This cavity is situated at the base of the zygomatic process, is of an irregular oval shape, and divided into two portions—an anterior and posterior. The anterior, which is the articular, is smooth, and in the living subject, covered with cartilage, but the posterior does not enter into the formation of the joint. The two are separated by the fissure of Glasserius, (*fissura Glasseri,*) which gives passage to the chorda tympani nerve, the laxitor tympani muscle, and the internal auditory vessels. The depth of this cavity is increased by the eminences which surround it. Its size is much greater than is necessary for the reception of the condyle of the lower jaw, but this disproportion only exists in man and ruminating animals. This cavity is placed nearly transversely—the outer extremity comes a little more forward than the internal. It is bounded on the inside by the spine of the sphenoid bone, posteriorly by the styloid and vaginal processes, and anteriorly by the *eminentia articularis,* situated immediately at the root of the zygomatic process, which contributes, in mastication, to modify the motions of the jaw.

For a description of the condyles of the lower jaw. See Maxilla, inferior. They, however, as well as the glenoid cavities are covered with a smooth layer of cartilage.

There is interposed between the condyle and the cavity an *inter-articular cartilage,* sometimes perforated in the centre, and so moulded as to fit the two articular surfaces. Except where it adheres to the external lateral ligament, and gives attachment to a few fibres of the external pterygoid muscle, the circumference of this cartilage is free, a circumstance which greatly facilitates the movements of the joint.

The union of this articulation is maintained, 1. By the *external lateral ligament,* which has a broad attachment to the tubercle situated at the junction of the roots of the zygomatic process, extending from thence to the neck of the condyle, covering the whole of the outside of the articulation. Externally, it comes in contact with the skin, and, internally, with the inter-articular cartilage, and synovial capsules.

2. By the *internal lateral* or *spheno-*

maxillary ligament, extending from the spinous process of the sphenoid bone to the spine on the inside of the orifice of the inferior dental canal, forming an aponeurotic band, which protects the dental vessels and nerves from the pressure of the internal pterygoid muscle. This ligament cannot be regarded as contributing to the strength of the articulation.

3. By the *stylo-maxillary ligament*, which extends from the styloid process of the temporal bone to the inferior angle of the lower jaw, but has no other use than to restrain the motions of the jaw, and to give attachment to the stylo-glossus muscle.

Belonging to this articulation are two synovial capsules, one on each side of the inter-articular cartilage, which, sometimes, by an opening in the cartilage communicate with each other.

TEMPORO-MAXILLARY ARTICULATION, MECHANISM OF THE. The following description of the mechanism of this joint is quoted from Cruveilhier's Anatomy: "In considering the action of this joint, the lower maxilla may be regarded as a hammer which strikes against the anvil represented by the upper jaw; it is a double angular lever, the axis of its motion being represented by a horizontal line that would pass through the middle of the rami. This articulation, which belongs to the class of condyloid joints, has been ranged among the angular ginglymi, on account of the great extent of its movements in two opposite directions, during its elevation and its depression, but it differs from them in being so constructed as to admit of slight lateral movements. It can also be moved forward and backward.

"1. *Depression.*—In this movement, each condyle rolls forward in its glenoid cavity, and then passes upon the transverse root of the zygoma, with a sudden jerk, which may be easily felt by placing the finger on the condyle while the mouth is being opened; at the same time the angle of the jaw is moved backward. The condyle carries with it the inter-articular cartilage; for the union of these two parts is of such a nature that, even in dislocation of the jaw, they are never separated. This depends not only upon the comparative tightness of the lower synovial capsule, but also on the mode of insertion of the external pterygoid muscle, which, being attached both to the neck of the condyle and the inter-articular cartilage, acts simultaneously upon them. The other parts of the joint are effected in the following manner: during depression of the lower jaw, the external lateral ligament is stretched; the upper synovial capsule is distended behind, but readily yields on account of its laxity. The spheno-maxillary band, or internal lateral ligament, which is inserted at an almost equal distance from the condyle, which is carried forward, and from the angle of the jaw, which is carried backward, remains unaltered, being neither stretched nor relaxed.

"When the depression is carried too far, either from the effect of a blow upon the bone, or during a convulsive yawn, the condyle is dislocated into the zygomatic fossæ, tearing the superior synovial capsule, and carrying with it the inter-articular cartilage.* This mode of displacement is impossible in the infant; for, from the obliquity of the ascending ramus of the jaw, the upper part of the condyle looks backward, and, in order to be luxated forward, would have to traverse a much larger space than it does even when the mouth is opened to the greatest possible extent.

"2. *In elevation*, the condyle rolls backward upon the transverse process, into the glenoid cavity. The external

* This luxation would be much more common were it not for the inter-articular cartilage, which, by always accompanying the condyle, presents a smooth surface, over which the latter may glide in returning into its proper cavity.

lateral ligament is relaxed. The obstacles to too great an elevation are, 1. The meeting of the dental arches. 2. The presence of the vaginal process, and the anterior wall of the auditory meatus; and it is very probable that the extensive movements of the jaw in the old subject, when the teeth are lost, are permitted by the size of the glenoid cavities. Without that portion of the glenoid cavity, which is behind the fissure of Glasserus, the toothless alveolar edges of the aged could never be brought in contact.

"The *forward motion* is not, like the preceding, the motion of a lever in which the jaw turns upon its axis; it is a horizontal movement in which the condyle is brought under the transverse root of the zygoma. A preliminary and indispensable condition to this movement is a slight depression of the whole of the lower maxilla. In this movement all the ligaments are stretched; if it were carried too far, the coronoid process would strike against the bone in the zygomatic fossa, and this circumstance would prevent the possibility of luxation of the condyle.

"The *backward motion* requires no special remark.

"The *lateral movements* differ from the preceding in the mechanism by which they are effected. In the first place, the whole bone does not move from its place. One of the condyles alone escapes from its socket, while the other remains in the glenoid cavity. The bone, therefore, turns upon one of the condyles as on a pivot.

"The external lateral ligament of that articulation in which the condyle moves is much stretched.

"The lateral motions would have been much more extensive had not the two condyles mutually obstructed each other in all movements but that of depression, by reason of their opposite directions. This may be shown by sawing a maxilla through the middle, and moving each of the halves. Moreover, the styloid and vaginal processes, and the spine of the sphenoid, prevent displacement inward."

TEMPORO-MAXILLARY NERVES. The divisions of the fascial nerve distributed to the temporal and maxillary regions.

TEMULEN'TIA. Drunkenness.

TENAC'ITY. *Tenacitas;* from *teno*, I hold. That property of bodies which prevents them from parting without considerable force. Cohesiveness.

TENACULA. Bone-nippers.

TENAC'ULUM. From *teno*, I hold. A firm, sharp pointed hook, attached to a handle, used to seize and draw out the mouths of wounded arteries.

TENACULUM, ASSALINI'S. A pair of small forceps, invented by Assalini, furnished with fine bifurcated, sharp points, received into each other when closed, and held together by a spring between the handles. It is used for seizing and holding small arteries while a ligature is being applied.

TENDO ACHILLIS The strong tendon of the heel, formed by the junction of the gastrocnemius and soleus muscles.

TEN'DON. *Tendo*, from τεινω, I stretch. A white, fibrous chord, serving for the attachment of a muscle, or muscles, to bone.

TENDONS, TWITCHING OF THE. Subsultus tendinum.

TEN'DRIL. A filiform, spiral shoot of a plant that winds round another body for support.

TENES'MUS. From τεινω, I stretch. Frequent desire to go to stool, without a discharge, accompanied by straining and pain.

TENONT'AGRA. From τενων, tendon, and αγρα, a seizure. Gout affecting a tendon.

TENOT'OMY. *Tenotomia;* from τενων, tendon, and τομη, incision. The operation of dividing a tendon.

TEN'SION. *Tensio;* from *tendere*, to stretch. The state of a part when extended or stretched.

TEN'SOR. A term applied to mus-

cles, the office of which is, to extend the parts to which they are attached.

TENSOR PALATI. The circumflexus palati muscle.

Tensor Tarsi. A small muscle situated at the inner commissure of the eyelids.

Tensor Tym'pani. A muscle of the internal ear.

Tensor Vaginæ Femoris. The facia lata muscle, situated on the outside of the thigh.

TENT. A small roll of lint, or piece of sponge, used for dilating wounds, sinuses, &c., to prevent them from closing before they are filled up at the bottom.

TENTAC'ULUM. A feeler. A mobile appendage, belonging to many invertebratæ, and serving as an organ of touch, or the means of attachment.

TENTO'RIUM. The process of the dura mater which separates the cerebrum from the cerebellum.

TENTWORT. Asplenium ruta muraria.

TEPID. *Tepidus.* Slightly warm.

TERAS. A monster.

TERATOL'OGY. *Teratologia;*—from τερας, a monster, and λογος, a discourse. A treatise on monsters.

TEREBEL'LA. A trepan.

TEREBIN'THINA. From τερμινθος, the turpentine tree. A resinous substance of the consistence of honey, which flows from pine and fir trees. Turpentine.

Terebinthina Argentoratensis. Strasburg turpentine.

Terebinthina Canadensis. Canada balsam.

Terebinthina Chia. The Chian turpentine.

Terebinthina Communis. Common turpentine.

Terebinthina Veneta. Venice turpentine.

Terebinthina Oleum. Oil of turpentine.

TERES. Round; cylindrical; applied to muscles and ligaments from their shape.

Teres Ligamen'tum. The round ligament attached to the head of the os femoris, and to the bottom of the cotyloid cavity of the os innominatum.

Teres Major. A muscle situated along the inferior and posterior part of the shoulder.

Teres Minor. A thin, fleshy muscle, situated at the posterior and inferior part of the shoulder, and partially covered by the back part of the deltoides.

TERGAL. From *tergum*, the back. Belonging to the back.

TERGEM'INUS. A term applied, in *Botany*, to a leaf-stalk which has two leaflets at the end of each branch, and two at the division of the fork.

TER'GUM. The back.

TERMINALIS. Terminal; forming the end or extremity.

TERMINOL'OGY. *Terminologia;* from τερμων, a term, and λογος, a discourse. A treatise on terms. A catalogue or list of the more important and usual terms in a language, science, or art, with their definitions. A nomenclature.

TERN'ARY. *Ternarius.* Consisting of threes; pertaining to the number three.

TERN'ATE. *Ternatus.* A term applied, in *Botany*, to a leaf which has three leaflets.

TER'RA. Earth.

Terra Absorbens. An absorbent earth.

Terra Japonica. Acacia catechu.

Terra Lem'nia. Lemnian earth.

Terra Livon'ica. Sealed earth from Livonia.

Terra Merita. Turmeric root.

Terra Noceria'na. A soft, whitish, astringent earth.

Terra Ponderosa. Baryta.

Terra Ponderosa Salita. The chloride of barium.

Terra Sigilla'ta. Sealed earth. See Bole.

TERTIAN AGUE. Tertian fever. An intermittent, whose paroxysms return every forty-eight hours, or every third day.

TESSELLA'TUS. From *tessera*, a square. Tesselated; checkered.

TES'SERA. The cuboid bone.

TEST. In *Chemistry*, a substance employed to discover an unknown constituent of a compound, by causing it to exhibit some known property. In *Metallurgy*, a cupel, or vessel, in which metals are melted for trial and refinement; refining gold or silver by means of lead, in a test, by the vitrification, scorification, &c., of all foreign matter.

Test Paper. Paper stained with litmus, or any reagent.

TES'TA. The shell of a mollusca. Also, the smooth and scaly covering which invests the exterior of seeds.

TESTA'CEOUS. From *testa*, a shell. A powder made from burnt shells. Also, of the nature of, or having a shell.

TESTÆ PREPARATÆ. Prepared oyster shells.

TESTES. The testicles.

TES'TICLE. From *testis*, a whiteness, because the testes are evidences of virility. The testicles are two oval, glandular organs, situated within the scrotum, and covered by the *tunica albuginea*.

TESTIS FEMINEUS. The ovary.

TESTU'DO. The turtle. Also, an encysted tumor of the scalp.

TET'ANIC. Relating to tetanus. Also, a medicine which increases the irritability of the muscular fibre, as *nux vomica*, *strychnia*, &c., and when taken in large doses, produces convulsions.

TET'ANUS. From τεινω, I stretch. Spasms accompanied by rigidity. A disease characterized by general and permanent spasmodic rigidity of the muscles. There are four varieties: 1. *Trismus*, the lock-jaw. 2. *Opisthotonos*, in which the body is drawn back. 3. *Emprosthotonos*, in which it is drawn forward, and 4. *Pleurothotonos*, where it is drawn to one side.

TETARTÆ'US. A quartan ague.

TETRABRAN'CHIATE. From τετρα, four, and βραγχια, gills. An order of cephalopods with four gills.

TETRADYNAM'IA. *Tetradynamous*; from τεσσαρες, four, and δυναμις, power. In *Botany*, a class of plants with six stamens, four longer than the rest.

TETRAG'ONUS. Quadrangular; four-cornered.

TETRAGYN'IA. From τεσσαρες, four, and γυνη, a wife. In *Botany*, an order of plants having four pistiles.

TETRAN'DRIA. *Tetrandrous*; from τετρας, a quaternary, and ανηρ, a husband. A class of hermaphrodite plants having four stamens.

TETRANTHE'RA PICHURIM. The plant from which the *faba pichurim* is obtained.

TETRAPHYL'LOUS. Four-leaved.

TETRASPER'MOUS. Four-seeded.

TETTER. Herpes.

Tetter, Crusted. Impetigo.

Tetter, Milky. Porrigo larvalis.

Tetter, Scaly. Psoriasis.

TETTERWORT. Chelidonium majus.

TEU'CRIUM. The name of a genus of plants.

Teucrium Capitatum. The poley-mountain of Montpelier.

Teucrium Chamædrys. The common germander.

Teucrium Chamæp'itys. The common ground-pine.

Teucrium Cret'icum. The poley-mountain of Candy.

Teucrium Iva. French ground-pine.

Teucrium Marum. The marum germander.

Teucrium Scordium. The water germander.

TEUTHIDÆ. *Teuthidans*; from τευθις, a calamary. The family of cephalopods, of which the calamary, *ligo vulgaris*, is the type.

TEXT'URE. *Textura*; from *texere*, to weave. The arrangement of the

several parts of any body with each other. In *Anatomy*, the arrangement of the tissues of an organ. The textures of the body according to Wilson, are:

1. Corpuscular tissue, found in the blood, lymph and chyle.
2. Epidermoid tissue; example, epithelium, cuticle, hair, nails.
3. Pigmentary tissue, found in choroid coat of the eye, lung.
4. Adipose tissue, as fat.
5. Cellular tissue.
6. Fibrous tissue.
7. Elastic tissue, ligamenta flava, middle coat of the arteries.
8. Cartilaginous tissue, including fibro-cartilage.
9. Osseous tissue.
10. Muscular tissue.
11. Nervous tissue.
12. Vascular tissue, arteries, veins, and lymphatics.
13. Serous tissue, including synovial.
14. Mucous tissue.
15. Dermoid tissue.
16. Glandular tissue.
17. Refracting tissue, lens of eye, cornea.
18. Petrous tissue, enamel of teeth.

TEXTUS. A tissue.

THAL'AMUS. A room or chamber. In *Anatomy*, the part of the brain from which the optic nerve originates.

THACKSTON, W. W. H. Author of an article on the Use of Forceps, and the Key in the Extraction of Teeth, published in volume first of the American Journal of Dental Science.—Also, of a Dissertation on the Diseases of the Maxillary Sinus, published in same periodical, and of a paper on the Morbid Effects of Diseased Teeth.

THAL'AMI NERVO'RUM OPTICO'RUM. Two oblong bodies, having a thin coating of white substance on their surface, situated between the corpora striata, divided by a fissure, which constitutes the third ventricle of the brain. They form the principal origin of the optic nerve, a circumstance which gave rise to their name.

THALIC'TRUM. The name of a genus of plants.

THALICTRUM FLAVUM. The poor man's rhubarb.

THANATOL'OGY. *Thanatologia*; from θανατος, death, and λογος, a discourse. A treatise on the doctrine of death.

THAN'ATOS. Death.

THAP'SIA. The name of a genus of plants.

THAPSIA ASCLE'PIAS. The deadly carrot.

THAP'SUS. Verbascum thapsus.

THE'A. The dried leaves of the tea-shrub.

THEA GERMANICA. Veronica.

THEA NIGRA. Black-tea; also called bohea.

THEA VIRIDIS. Green-tea.

THE'CA. From τιθημι, I place. A case or sheath.

THECA VERTEBRALIS. The canal of the vertebral column.

THELASIS. Lactation.

THELE. The nipple; a papilla.

THELI'TIS. From θηλη, the nipple, and *itis*, a terminal, signifying inflammation. Inflammation of the nipple.

THE'NAR. From θενω, I strike. The palm of the hand and sole of the foot.

THENAR EMINENCE. The projection on the superior and outer part of the hand.

THEOBRO'MA. The name of a genus of plants.

THEOBROMA CACA'O. The tree which bears the cocoa.

THEORET'ICAL. *Theoreticus*; from θεωρεω, I contemplate. Pertaining to theory; depending on theory; not practical; speculative.

THE'ORY. *Theoria*; from θεωρεω, I contemplate. The speculative part of a science; inferences drawn from facts; an exposition of the principles of a science. Also, science, distinguished from art, as the *theory* and practice of dental surgery, or general medicine. It differs from hypothesis in being

founded on inferences drawn from established facts, while a *hypothesis* attempts to explain certain phenomena, by assuming propositions altogether speculative.

THEORY OF MEDICINE. A philosophical exposition of the phenomena of health and disease, embracing physiology, pathology, hygiene, and therapeutics.

THERAPEU'TICS. *Therapeutice;* from θεραπευω, I wait on the sick. I alleviate, or assuage. That branch of medicine which has, for its object, the treatment of diseases, or which considers the application of the remedies employed for their prevention and cure.

THERIACA. From θηρ, a ferocious or venomous animal, an ακεομαι, I cure. An electuary, supposed by the ancients to be a potent antidote against the bite of venomous animals. Also, a treacle of molasses.

THERIACA ANDROM'ACHI. The name of an ancient alexipharmic electuary.

THERIACA CELESTIS. Tincture of opium.

THERIACA EDINENSIS. Confection of opium.

THERIACA GERMANO'RUM. An extract prepared from juniper berries.

THERIACA LONDINENSIS. A cataplasm of cumin seed, bay-berries, germander, snake-root, cloves, and honey.

THERIO'MA. *Therion.* A malignant ulcer.

THER'MA. A warm bath or spring.

THER'MAL. Warm.

THER'ME. Heat.

THERMO-ELECTRICITY. Electricity produced by heat. It is effected by heating the junction of two metals of different conducting powers, which have been soldered together. This, at once sets in motion, a current of electricity, which passes along the wires.

THERMOM'ETER. *Thermometrum;* from θερμη, heat, and μετρον, a measure. An instrument for measuring the temperature of bodies, or the degrees of heat.

THER'MOSCOPE. A thermometer.

THE'SIS. A position or proposition; a dissertation on any subject. In *Medical* and *Dental Colleges*, an essay composed by a student who is a candidate for graduation.

THEVE'TIA A'HOVAL. A Brazilian tree, which produces a nut said to be a violent poison.

THIGH. *Femur.* That part of the lower limb situated between the pelvis and leg.

THIGH-BONE. Os femoris.

THIRST. In *Physiology*, the sensation of a desire to drink, or to introduce liquids into the stomach.

THISTLE, BLESSED. Centaurea benedicta.

THISTLE, CARLINE. Carlina acaulis.

THISTLE, CREEPING. Serratula arvensis.

THISTLE, HOLY. Centaurea benedicta.

THISTLE, LADIES'. *Milk thistle;* carduus marianus.

THISTLE, PINE. Carlina gummifera.

THLA'SIS. *Thlasma.* A contusion.

THLAS'PI. The name of a genus of plants.

THLASPI ARVENSE. Treacle mustard.

THLASPI CAMPESTRE. Mithridate mustard.

THORACENTE'SIS. From θωραξ, the thorax, and κεντησις, perforation. Tapping the thorax.

THORAC'IC. *Thoracicus.* Belonging to the thorax.

THORACIC AORTA. That portion of the aorta between the heart and diaphragm.

THORACIC ARTERY, INFERIOR. The external mammary artery.

THORACIC DUCT. *Ductus thoracicus.* The trunk of the absorbents or duct, in which the lymphatics of the lower extremities, left side of the head, neck, and thorax terminate. It commences at the receptaculum chyli, is about the size of a goose-quill, passes up upon

the dorsal vertebræ, between the aorta and vena azygos, sometimes divides into two branches which afterwards unite, and sometimes gives off a number of branches which assume a plexiform arrangement, passes up through the diaphragm, and to the union of the left subclavian and jugular veins, into which it empties its contents.

THORACIC REGIONS. The different regions of the chest.

THORACYS'TIS. Encysted dropsy of the thorax.

THORACICI. The name of an order of fishes which have the ventral fins under the pectoral.

THORAX. From θορεω, to leap, because the heart leaps in it. That portion of the body situated between the neck and abdomen. It is one of the splanchnic cavities, and contains the pleura, lungs, heart, œsophagus, thoracic duct, thymus gland, arch of the aorta, part of the vena cava, the vena azygos, the eighth pair of nerves, and part of the intercostal nerve. It is bounded anteriorly by the sternum, posteriorly by the vertebræ, laterally by the ribs and scapula, above by the clavicle, and below by the diaphragm.

THORN-APPLE. Dartura stramonium.

THOROUGHWORT. Eupatorium perfoliatum.

THRIX. A hair.

THROAT. The anterior part of the neck; the fauces.

THROBBING. Beating; pulsating, as of the heart or of an artery; palpitating.

THROM'BUS. From θρομβοω, to clot. A small tumor formed by an effusion of blood into the cellular substance in the vicinity of a vein which has been opened.

THRUSH. Aphthæ.

THRYP'SIS. Comminution.

THUS. The resin of the *pinus abies*, and of the *juniperus lycia*.

THUYA. The name of a genus of plants.

THUYA OCCIDENTA'LIS. The arbor vitæ, or tree of life.

THYM'BRA. Satureia hortensis.

THYMBRA HISPANICA. Thymus mastichina.

THYME. Thymus.

THYMIA'MA. From θυμα, an odor. Musk-wood. Thus judæorum. A bark brought from Syria, which has an agreeable odor and bitterish taste.

THYMIOSIS. Frambœsia.

THYMI'TES. Wine impregnated with thyme.

THYM'IUM. A small wart upon the skin, resembling thyme buds.

THYMOXAL'ME. A compound medicine composed of thyme, vinegar and salt.

THY'MUS. The name of a genus of plants. Also, common thyme.

THYMUS CITRA'TUS. *Thymus serpyllum.* Wild thyme; mother of thyme.

THYMUS CRETICUS. Satureia capitata.

THYMUS MASTICHI'NA. The common herb mastich.

THYMUS SERPYLLUM. Wild thyme.

THYMUS VULGA'RIS. Common thyme.

THYMUS GLAND. A conglomerate gland in the fetus, composed of lobules and a central cavity, situated in a duplicature of the mediastinum under the upper part of the sternum.

THYRO-ARYTENOID. Relating to the thyroid and arytenoid cartilages.

THYRO-ARYTENOID LIGAMENTS.—The inferior ligaments of the larynx. The vocal chords.

THYRO-ARYTENOID MUSCLE. *Thyro-arytænoideus.* A thin muscle situated about the glottis. It arises from the lower part of the posterior surface of the thyroid cartilage, and is inserted into the outer part of the base of the arytenoid cartilage. Its use is to draw the arytenoid cartilage forward nearer to the thyroid, and as it does this, it relaxes the ligaments of the larynx.

THYRO-EPIGLOT'TIC. *Thyro-epiglot-*

tideus. A name given to the outer portion of the thyro-arytenoid muscle.

Thyro-Hyoideus. *Thyro-hyoid.* A muscle arising from the thyroid cartilage, and inserted into the inferior border of the cornu of the os hyoides.

Thyro-Pharyngeus. The constrictor pharyngis inferior.

Thyro-Pharyngo-Staphylinus.—The palato-pharyngeus.

THYROCE'LE. Bronchocele.

THYROID. *Thyreoid. Thyroides;* from θυρεος, a shield, and ειδος, resemblance. Resembling a shield.

Thyroid Cartilage. *Cartilago scutiformis.* The largest cartilage of the larynx. It is composed of two lateral alæ, which unite in front and form a projection called the *pomum adami.* Each of these alæ, posteriorly, terminate above in the *superior cornu,* and below in the *inferior cornu.* An oblique ridge is observed on the side of the alæ which gives attachment to the sterno-thyroid muscle, and origin to the thyro-hyoid and constrictor muscles. On the inner side near the union of the alæ, the epiglottis, the chordæ vocales, the thyro-arytenoid, and the thyro-epiglottidean muscles are attached. This cartilage constitutes the anterior, superior, and largest part of the larynx.

Thyroid Gland. *Glandula thyroides.* A glandiform body consisting of two lobes, situated, one on each side of the trachea, upon the crycoid cartilage, and horns of the thyroid cartilage. Its functions are unknown.

THYROIDEAL. *Thyroideus.* Relating to the thyroid gland or cartilage.

Thyroideal Arteries. Two arteries, distinguished by the names of *superior* and *inferior.* The superior arises from the external carotid artery, and the inferior from the subclavian, and both, after giving off several branches, are distributed to the thyroid gland.

Thyroideal Veins. These veins are distinguished into, 1. A *superior,* and several *middle* thyroideal veins, which open into the internal jugular vein. 2. Two *inferior,* a right and a left, and sometimes more. The right opens into the right vena innominata, and the left into the left vena innominata.

THY'SANOURA. From θυσανοι, fringes, and ουρα, a tail. An order of apterous insects with fringed tails.

TIB'IA. The large bone of the leg.

TIBIAL. *Tibialis.* Pertaining to to the tibia.

Tibial Aponeuro'sis. A continuation of the femoral aponeurosis over the leg.

Tibial Arteries. *Arteriæ tibiales.* The two principal branches of the popliteal. They are called the *anterior* and *posterior tibial arteries.*

Tibial Nerves. Two nerves, an *anterior* and *posterior.* The *anterior* commences at the bifurcation of the peroneal and descends with the tibial artery. The *posterior* is a continuation of the popliteal nerve, and passes down the posterior part of the leg to the back part of the inner ankle.

Tibial Veins. Two veins, an *anterior* and *posterior,* which have the same arrangement as the tibial arteries.

TIBIA'LIS. Tibial.

Tibialis Anti'cus. A muscle situated on the anterior part of the leg.

Tibialis Gracilis. The planter muscle.

Tibialis Posticus. A muscle situated at the posterior part of the leg.

TIBIO-TARSAL. Relating to the tibia and tarsus.

Tibio-Tarsal Articulation. The articulation of the foot with the leg.

TIC DOULOUREUX. Neuralgia of the face

TICK. See Acarus.

TICK'LING. A peculiar sensation, resulting from excitation of the cutaneous nerves.

TIL'IA. The name of a genus of trees.

Tilia Europœ'a. The lime tree. Linden tree. Basswood.

TIL'MUS. Picking of the bedclothes.

TIMAENS. Author of a Treatise on Tooth-ache; published, London, 1769.

TIMIDUS. The rectus inferior oculi muscle.

TIN. *Stannum.* A whitish, brilliant metal, of an intermediate hardness between gold and lead. It is very malleable and is readily beat into thin leaves or foil, in which state, it is used for filling teeth, and is, perhaps, for this purpose, the best substitute for gold that has ever been employed. See Filling Teeth. It possesses less tenacity and ductility than most of the other malleable metals. It is also used by dentists, both for models and counter-models, and for which purpose, in most cases, it answers an excellent purpose. It is extensively employed in the arts, and its filings are sometimes used as a mechanical vermifuge. The chloride or butter of tin, is a violent cathartic.

Tin Foil. Stannum foliatum. See Filling Teeth.

Tin, Muriate of. Chloride of tin. Butter of tin.

Tin, Sulphuret of. Aurum musivum.

TINASMUS. Tenesmus.

TINCA. The tench. The name of a sub-genus of cyprinoid fishes.

TINCÆ OS. The mouth of the uterus is so called from its resemblance to the mouth of the tench fish.

TINCAL. Crude borax.

TINCTU'RA. From *tingere*, to dye. A tincture or spirituous solution of the active portions of any medicine.

Tinctura Acetatis Ferri Cum Alcohol. Tincture of acetate of iron with alcohol.

Tinctura Aconi'ti. Tincture of aconite.

Tinctura Al'oes. Tincture of aloes.

Tinctura Aloes et Myrrhæ. Tincture of aloes and myrrh. Compound tincture of aloes.

Tinctura Ammoniæ Composita. Compound tincture of ammonia.

Tinctura Angusturæ. Tincture of angustura bark.

Tinctura Asafœtidæ. Tincture of asafœtida.

Tinctura Aurantii. Tincture of orange peel.

Tinctura Balsami Tolutani. Tincture of tolu.

Tinctura Belladonnæ. Tincture of belladonna.

Tinctura Benzoini Composita. Compound tincture of benzoin.

Tinctura Buchu. Tincture of buchu.

Tinctura Calumbæ. Tincture of columbo.

Tinctura Camphoræ. Tincture of camphor.

Tinctura Camphoræ Composita. Camphorated tincture of opium. Paregoric elixir.

Tinctura Cantharidis. Tincture of Spanish flies.

Tinctura Capsici. Tincture of cayenne pepper.

Tinctura Cardamomi. Tincture of cardamom.

Tinctura Cardamomi Composita. Compound tincture of cardamom.

Tinctura Cascarillæ. Tincture of cascarilla.

Tinctura Cassiæ. Tincture of cassia.

Tinctura Castorei. Tincture of castor.

Tinctura Castorei Ammoniata. Ammoniated tincture of castor.

Tinctura Catechu. Tincture of catechu.

Tinctura Cinchonæ. Tincture of Peruvian bark.

Tinctura Cinchonæ Composita.—Compound tincture of Peruvian bark.

Tinctura Cinnamomi. Tincture of cinnamon.

Tinctura Cinnamomi Composita. Compound tincture of cinnamon.

Tinctura Colchici Composita.—Compound tincture of colchicum.

Tinctura Colchici Seminis. Tincture of colchicum seed.

Tinctura Colombæ. Tincture of columbo.

Tinctura Conii. Tincture of hemlock.

Tinctura Croci. Tincture of saffron.

Tinctura Cubebæ. Tincture of cubebs.

Tinctura Digitalis. Tincture of fox-glove.

Tinctura Ferri Ammonio-Chloridi. Tincture of ammonio-chloride of iron.

Tinctura Ferri Chloridi. Tincture of chloride of iron. Tincture of muriate of iron.

Tinctura Galbani. Tincture of galbanum.

Tinctura Gallæ. Tincture of galls.

Tinctura Gentianæ Composita. Compound tincture of gentian.

Tinctura Guaiaci. Tincture of guaiac.

Tinctura Guaiaci Ammoniata.—Ammoniated tincture of guaiac.

Tinctura Hellebori. Tincture of black hellebore.

Tinctura Humuli. Tincture of hops.

Tinctura Hyoscyami. Tincture of henbane.

Tinctura Iodini. Tinctura of iodine.

Tinctura Iodini Composita. Compound tincture of iodine.

Tinctura Jalapæ. Tincture of jalap.

Tinctura Kino. Tincture of kino.

Tinctura Krameriæ. Tincture of rhatany.

Tinctura Lactucarii. Tincture of lactucarium.

Tinctura Lavandulæ Composita. Compound spirit of lavender.

Tinctura Lobeliæ. Tinctura of lobelia.

Tinctura Lobeliæ Ætherea.—Ethereal tincture of lobelia.

Tinctura Lupulinæ. Tincture of lupulin.

Tinctura Moschi. Tincture of musk.

Tinctura Myrrhæ. Tincture of myrrh.

Tinctura Nucis Vomicæ. Tincture of nux vomica.

Tinctura Olei Menthæ Piperitæ. Tincture of oil of peppermint. Essence of peppermint.

Tinctura Olei Menthæ Viridis.—Tincture of oil of spearmint. Essence of spearmint.

Tinctura Opii. Tincture of opium. Laudanum.

Tinctura Opii Acetata. Acetated tincture of opium.

Tinctura Opii Ammoniata. Ammoniated tincture of opium.

Tinctura Opii Camphorata. Camphorated tincture of opium. Paregoric elixir.

Tinctura Quassiæ. Tincture of quassia.

Tinctura Quassiæ Composita.—Compound tincture of quassia.

Tinctura Rhei. Tincture of rhubarb.

Tinctura Rhei Composita. Compound tincture rhubarb.

Tinctura Rhei et Aloes. Tincture of rhubarb and aloes.

Tinctura Rhei et Gentianæ.—Tincture of rhubarb and gentian.

Tinctura Rhei et Sennæ. Tincture of rhubarb and senna.

Tinctura Sanguinariæ. Tincture of blood-root.

Tinctura Saponis Camphorata.—Camphorated tincture of soap.

Tinctura Scillæ. Tincture of squill.

Tinctura Sennæ Composita. Compound tincture of senna.

Tinctura Sennæ et Jalapæ. Tincture of senna and jalap.

Tinctura Serpentariæ. Tincture of Virginia snake-root.

Tinctura Stramonii. Tincture of stramonium.

Tinctura Thebaica. Laudanum.

Tinctura Tolutani. Tincture of tolu.

Tinctura Valerianæ. Tincture of valerian.

Tinctura Valerianæ Ammoniata. Ammoniated tincture of valerian.

Tinctura Zingib'eris. Tincture of ginger.

TINC'TURE. Tinctura.

TIN'EA. *Tinea capitis.* Porrigo.—Scald-head.

TINNI'TUS AURIUM. Ringing in the ears.

TIORAC. Author of an Inaugural Dissertation upon the Teeth; their influence upon health, physiognomy and pronunciation. Paris, 1823.

TISANE. A mucilaginous drink, particularly a decoction of barley.

TIS'SUE. *Textus.* A French term, applied, in *Anatomy,* to the textures which form the different organs of the body.

Tissue, Accidental. An organized substance, foreign to the natural tissues of the body, developed in the interior or at the surface of organs, as the membrane of croup, fungous and cancerous tumors, tubercles, &c.

Tissue, Areolar. The cellular tissue.

TITA'NIUM. A rare, very hard, copper colored, and extremely infusible metal.

TITHON'IC. Pertaining to tithonicity.

TITHONIC'ITY. A term, applied to a chemical effect produced by a property of light, supposed to be a distinct, independent, imponderable agent.

TITHONOGRA'PHY. Photography.

TITIL'LICUM. The arm-pit.

TITUBA'TION. *Titubatio;* from *titubare,* to stagger. Staggering; restlessness. The fidgets.

TOAD-FLAX. Antirrhinum linaria.

TOBAC'CO. Nicotiana tabacum.

Tobacco, English. Nicotiana rustica.

Tobacco, Virginia. Nicotiana tabacum.

Tobacco, Indian. Lobelia inflata.

TOCETOS. Parturition.

TOCOL'OGY. From τοκος, parturition, and λογος, a discourse. A treatise on parturition; the science of obstetrics.

TOCOS. Parturition.

TOE. Digitus pedis.

TOLERANCE. From *tolero,* to bear. In *Medicine,* ability to bear any medicine or agent.

TOLU, BALSAM OF. Toluifera balsamum.

TOLUIF'ERA. The name of a genus of plants.

Toluifera Bal'samum. The name of the tree which affords the balsam of tolu. *Balsamum tolutanum;* balsam of tolu.

TOLVER, A. Author of a Treatise on the Teeth; published, London, 1752.

TOMA'TUM. Tomato. Solanum lycopersicum.

TOMEI'UM. *Tomeion.* A knife.

TOMENTO'SE. Downy; woolly.

TOMEN'TUM. A flock of wool. In *Anatomy,* the small vessels on the surface of the brain are so called from their woolly appearance. In *Botany,* the down or hairs on leaves.

TOMES, JOHN. Author of Lectures on Dental Physiology and Surgery, published in the London Gazette, and corrected for, and republished in, the American Journal of Dental Science, volumes seven and eight.

TONE. *Tonus;* from τεινω, I stretch. The tension proper to the healthy condition of each organic tissue.

TONGUE. *Lingua.* The essential organ of taste, situated in the mouth, and extending from the os hyoides and epiglottis to the incisor teeth. It also assists the performance of many other functions, as sucking, mastication, deglutition, speech, &c., and is composed of a great variety of parts. It is anatomically divided into its apex, body, and root. The apex is the free anterior portion; the body occupies the centre, and is thick and broad; the root is the posterior portion, and is attached to the os hyoides. The tongue is covered by a reflection of mucous membrane.

The upper surface of the tongue

is rough and covered by numerous eminences called the papillæ, which are distinguished into: 1. The *lenticular;* 2. The *fungiform;* 3. The *conical;* and 4. The *filiform* papillæ.

The *lenticular,* which are the largest, are nine or more in number, and situated near the root of the tongue. They are of a spherical shape, arranged in the manner of the letter N, and consist of mucous follicles. Behind them is a depression, called the foramen cecum.

The *fungiform* papillæ are more numerous, and situated near the borders of the tongue. These are smaller than the lenticular, and have a rounded head supported on a thin pedicle.

The *conical* are still more numerous and scattered over the whole surface of the tongue. They are smaller than the filiform and are of a conical shape.

The *filiform,* are smaller than the last named papillæ, and occupy the intervals between the others.

All of these papillæ, except the lenticular, belong essentially to the function of taste.

The greater portion of the substance of the tongue is composed of the *stylo-glossus, hyo-glossus, genio-hyo-glossus,* and *lingualis* muscles. But besides these, the *digastricus, mylo-hyoideus,* and *geno-hyoideus,* act more or less indirectly upon this organ.

By the separate and combined action of these muscles the tongue is made to assume almost every variety of position. They elevate and depress it, move it to either side, or protrude it from the mouth; draw it back to the pharynx, make its dorsum or upper surface concave or convex, and turn its apex or tip upwards or downwards, laterally or backwards.

Tongue, Characteristics of the. The appearance of the tongue is supposed to indicate more accurately the state of the general health than any other part of the body, and hence, both in diagnosis and prognosis, it is always consulted. But whether it reports more correctly the state of the general health than other parts of the buccal cavity, the quality of the blood and temperament of the individual, are, certainly, as clearly indicated by the appearance of the lips and gums as that of this organ. The effects produced on the mucous membrane of the tongue by disease in other parts, are said by professor Schill, to be analogous to those produced on the general integument, and so are the changes of its color, consistence, humidity, and temperature, similar to those of the skin. The changes of its coating are also said to agree with analogous changes of the perspiration, and that these phenomena are more decided in acute than chronic affections.

The signs of the tongue are divided, by professor Schill, into *objective* and *subjective.* To the first, belong "the changes of size, form, consistence, color, temperature, secretion, and motion," and to the second, "the anomalous sensations of taste." With regard to the pathognomic signs of the tongue, he says that hypertrophy, inflammation or congestion, may occasion its enlargement, and that inflammatory swelling, when arising from acute diseases, such as "angina, pulmonary inflammation, measles, plague, or variola, yields an unfavorable prognosis. Even non-inflammatory swelling of the tongue, is a dangerous phenomenon in acute diseases, especially cerebrals which are combined with coma. If it be the consequence of mercury, of the abuse of spirituous drinks, of gastric inflammation, of chlorosis, of syphilis, or if it occur in hysteria or epilepsy, the prognosis is not dangerous; but the disease is always the more tedious where the tongue swells than where it does not. It is enlarged, also, by degenerescence and cancer."

"Diminution of the size of the tongue takes place where there is considerable emaciation. In this case it continues soft and movable. If, in acute states, the tongue becomes small, and is, at the same time, hard, retracted and

pointed, the irritation is very great, and the prognosis bad. This sign occurs more especially in typhus, in the oriental cholera, in inflammation of the lungs, and in acute cerebral affections. In hysteria and epilepsy, this phenomena has no unfavorable import."

Internal diseases, he says, seldom cause the form of the tongue to change, but chronic irritation of the stomach, dyspepsia, and acute exanthems, are attended by an enlargement of its papillæ. In *paralysis*, and *epilepsy*, the tongue becomes elongated, and in severe protracted dyspepsia, its edges sometimes crack.

Flaccidity of the tongue is an indication of debility, but in acute diseases it is regarded as an unfavorable symptom. Dryness of the tongue, says professor Schill, occurs in acute or violent inflammations, and irritations, particularly when seated in the intestinal canal and respiratory organs, as in the case of diarrhœa, typhus fever, pneumonia, pleuritis, peritonitis, enteritis, gastritis, inflammation of the joints, &c. Among the higher degrees of dryness, which furnish still more unfavorable indications, he enumerates the rough, the fissured, and burnt tongue, and when these are not accompanied by thirst, he says, they prognosticate a fatal termination. The abatement and crisis of the disease is indicated by the tongue becoming moist.

In a note to professor Schill's work on the tongue, Dr. Bell, of Philadelphia, says, "a rough, and dry, and even furred tongue, is seen in some dyspeptic persons, who sleep with the mouth open; and although it indicates an irritation of the digestive organs, it is not of a bad augury." The same is true, to some extent, with regard to persons of a bilious temperament.

Paleness of the tongue is mentioned by professor Schill, as an indication of a serous condition of the blood, of chlorosis, of a great loss of blood, of sinking of the strength in acute diseases, or of their "assuming a nervous form, as typhus and scarlatinia maligna. It is also found," he says, "in enteritis and dysentery, when but little fever is present." This, he believes to be owing to a determination of the fluids downwards. Lymphatic persons, as has been before remarked, are peculiarly subject to it, but it is never observed in those who enjoy good health.

A very red tongue, he says, is indicative of "violent inflammation, mostly of the intestinal canal, but also of the lungs and of the pharynx, and acute exanthems." He regards the prognosis as bad, when a furred tongue "in acute diseases of the intestinal canal becomes clean and very red," if the change be not accompanied with the return of the patient's strength. "But," he continues, "if the debility is not considerable, and the tongue becomes clean and very red, whilst other febrile symptoms continue, a new inflammation may be expected." But, even in affections like these, the redness of the tongue is always more considerable in sanguinous, than it is in lymphatic or lymphatico-serous subjects, so that in forming a prognosis from this sign, the temperament of the individual should never be overlooked.

Proceeding with the description of the signs of this organ, he says, "the tongue becomes a blackish-red and bluish-red in all serious disturbances of the circulation and respiration, as also in severe diseases of the lungs and heart, as catarrhs, suffocations, asthma, extensive inflammations of the lungs, carditis, Asiatic cholera, plague, confluent small-pox, and putrid fevers. It becomes black and livid in cases of vitiation of the blood, more especially in scurvy, at the setting in of gangrene, and in phthisis, when death is near at hand."

The temperature of the tongue is increased by glossitis, internal inflammation and fevers of a typhoid character, and coldness is observed to take place

in Asiatic cholera, and at the approach of death.

The indications of the secretions of the tongue are thus enumerated. A clean and moist tongue are favorable signs, but a clean, dry, and red tongue, as seen in slow nervous fevers, acute exanthems and plague, are unfavorable. A furred or coated tongue is said to occur, chiefly, in intestinal disorders, diseases of the lungs, skin, and in rheumatic affections. The coating is said to vary in "color, thickness, adherence, and extent;" and the secretions of the tongue is as variable in different diseases, as its coating.

The occurrence of false membranes and pustules as resulting from peculiar forms of mucous secretion, are next mentioned. The former appear either as small, white points, or cover a large surface, and, sometimes, they are said to envelop the whole tongue. Their color, says professor Schill, is "sometimes white, sometimes yellow, and, sometimes, red," and the greater the surface they cover, the more unfavorable the prognosis. "Pustules on the tongue," says our author, are, sometimes idiopathic, but in most cases symptomatic. They are either distinct or confluent; the confluent are the worst. Those which are hardish and dry, and, also those which are blue, and those of a blackish appearance, which sometimes occur in acute diseases, are of an unfavorable import." On the other hand, those which have a whitish, soft, moist and semi-transparent appearance are said to be less unfavorable, and when the eruption or aphthæ is repeated, it portends a longer continuance of the disease. They are said to be frequent accompaniments of gastritis, catarrhs, enteritis, metritis, dysentery, cholera infantum, peritonitis, intermittent and typhus fevers, pleuritis, pneumonia, and the third stage of pulmonary consumption. Their prognosis is said to be favorable, when "they appear with critical discharges after the seventh day," and unfavorable when they occur as a consequence of the prostration of the physical energies of the system.

Other pathognomic indications, as furnished by the tongue, might be mentioned, but the foregoing will suffice.

Tongue, Black. A term applied to a typhoid fever which prevailed in the western states in the winter of 1842-'3.

Tongue-Holder. An instrument invented by Mr. Lawrence, consisting of a curved steel-spring, two and one-fourth inches long, about three-eighths of an inch wide, with a silver plate a little larger than a twenty-five cent piece, and shaped like the anterior half of the tongue, upon which it is intended to rest, attached to one end, and an oval pad at the other. The manner of using this instrument is thus described by Dr. E. Townsend, of Philadelphia: "Fold a small napkin so that it shall nearly fill the space between the bicuspides, and extending posteriorly as far as the middle of the tongue, pressing it down on the sublingual ducts as closely as possible, then lay the broad mouth plate upon the napkin, and passing the spring backwards, rest the pad in the roof of the mouth; the force of the spring will be sufficient to keep the napkin in its place, and to keep the mouth dry to the end of the operation, if all the steps have been carefully taken."

The object of this instrument is to confine the tongue to the floor of the mouth and keep this cavity open and dry during the introduction of a filling into a tooth.

Tongue-Scraper. An instrument invented by Dr. L. S. Parmly, to remove clammy and hardened mucous secretions from the upper surface of the tongue. It consists of a thin piece of whalebone or steel, about six inches long, and three-eighths of an inch in width. In using it, the two ends are brought together, and the curved part introduced into the back part of the mouth, then by pressing the lower edge upon

the top of the tongue and drawing it forward, the clammy mucus and fur is removed.

TONGUE-SHAPED. Lingulate.

TON'IC. *Tonicus.* In *Pathology*, a continuous spastic muscular contraction, as in tetanus.

TONIC SPASM. A rigid contraction of the muscles, lasting for some time without relaxation.

TONIC'ITY. *Tonicitas.* The faculty which determines the tone of the solids.

TON'ICS. From τονοω, to strengthen. A term applied to medicines, which, when introduced into the system, impart tone and vigor to the whole animal economy. They are obtained both from the *mineral* and *vegetable* kingdoms.

TONOS. Tonic spasm.

TON'SIL. *Tonsilla.* An ovoid, glandular organ, about half an inch long, situated on either side within the fauces, between the anterior and posterior pillars of the soft palate. It consists of an assemblage of mucous follicles, which open exteriorly. When pressed, a viscid mucus oozes from the tonsils, which, by lubricating the isthmus faucium, facilitates the deglutition of alimentary substances.

TONSILLA'RUM GANGRÆNA. Cynanche maligna.

TONSILLI'TIS. Inflammation of the tonsils. Cynanche tonsillaris.

TOOTH. *Dens. Odous. Dent.* A tooth is anatomically divided into three parts; namely, 1. The *crown* or *corona*, which is the part situated without the alveolus, and covered by a hard vitreous substance called the enamel. 2. The *cervix* or *neck*, which is situated between the crown and alveolus, and surrounded by the gum. 3. The *root* or *fang*, which is the part situated within the alveolus. See Teeth.

A tooth is composed of four distinct parts; namely, 1. The *pulp*. 2. The *bone* or *dentine*. 3. The *enamel*, and 4. The *crusta petrosa* or *cementum*. For a description of these tissues, see name of each. A tooth has also a central cavity which encloses the pulp. See Dental Cavity.

TOOTH-ACHE. Odontalgia.

TOOTH-BONE. Dentine. The part of a tooth situated between the enamel and cementum, and the pulp. The structure of tooth-bone, ivory or dentine, according to professor Retzius, of Stockholm, is tubular. The tubes radiating from the pulp, are "directed perpendicularly to the surface of the tooth," and pursuing a waving course, "each tube having three curves like the Greek letter ʒ. Besides these primary curves, the tubes when examined with a" high "magnifying power, are seen to present smaller secondary undulations, which are less perceptible in the deciduous than in the permanent teeth, and less marked at the external extremity of the tubes than in the middle of their course. The undulations are nearly parallel in the different tubes, and thus give rise to the appearance of concentric lines around the cavity of the pulp in a section of the ivory. Their diameter remains the same, (namely, $\frac{1}{117}$ of a French line, or about $\frac{1}{259}$ of an English line,) from their commencement at the cavity of the pulp to the middle of the outer third of their course; it then diminishes rapidly, until the terminal branches cease to be visible, or terminate in small irregularly round cells." With a magnifying power of 300 to 500 diameters, it can be seen that the tubes are not simple, but branch by a dichotomous division, and in their whole extent give off numerous side twigs, which again subdivide and occupy the spaces between the principal tubes. These minute lateral branches are seen most readily in the deciduous teeth; those from different tubes appeared to Retzius not to anastomose, except, perhaps, by their finest extremities. The tubes have a more regular arrangement, their lateral branches are smaller, and the cells more minute and difficult to discover in the

human teeth than in those of any other animals.

"When the wall of the cavity of the pulp of a tooth is regarded with a sufficiently high magnifying power, it is seen to be perforated by numerous small orifices, separated by numerous narrow interspaces; these are the openings of the dental tubes. In sections also made to the course of the tubes, their lumen can be seen, and they then appear as bright rings surrounding a spot, which, according to the variations of the light, is dark or light, or in part dark and in part light. Some of the tubes are seen to be cut obliquely. The rings have a different aspect from the substance in which they are imbedded, and have sometimes a yellowish color; hence, as well as from the observations of professor Müller, it is evident that the tubes have special parietes, and are not mere excavations in the substance of the ivory. Professor Retzius confirms the observation of professor Müller, that the tubes contain an organic earthy matter in glandular masses, which disappears under the action of dilute muriatic acid. The cells, and the small tubes which radiate from them, also contain earthy matter, as in bone. They are naturally white and opaque; but, after maceration in dilute muriatic acid, become colorless and transparent.

"Examining the ivory in different mammalia, reptiles, and fishes, Retzius met with many varieties of structure; the most important of which, are those which show the great resemblance of ivory to bone. The cells or corpuscules are in many mammalia in greatest abundance at the superfices of the ivory; but in others, they, together with fine tubes which issue from them or terminate in them, and which are continuous with the larger dental tubes, occupy in greater part all the interspaces between the latter. These cells of the ivory contain calcareous matter, and are evidently analogous to the corpuscules discovered by Purkinje in bone, which also have fine anastomosing tubes radiating from them. The part of the ivory, after the teeth have emerged from the gum, namely, the extremity of the fang, and that part which fills up the cavity of the pulp, has less regularity of structure than the ivory previously formed; the tubes are less parallel, the cells larger, and the anastomoses of the small tubes terminating in these more distinct; all of which circumstances, give this imperfectly formed ivory a great resemblance to true bone. But the ivory in the teeth of some animals, presents characters which assimilate it still more remarkably to the structure of bone. In the teeth of man and most mammalia, the ivory is formed regularly in successive layers on the surfaces of the pulp, which, in the body of the teeth, undergoes no other change than gradual diminution in size. In other animals, however, as the sloth, (bradypus,) walrus, (trichechus,) pike, (esox,) ling, (gadus molva,) and wolf-fish, (anarrhichas lupus,) the pulp, after forming the most external layer of ivory, consisting of closely set dental tubes perpendicular to the surface, divides into a number of processes, similar to, but more numerous than, those which form the fangs of the human molares; and around each of these processes or branches of the pulp ivory is formed in layers. In many instances, as in the saw-fish, (pristis,) ling, and wolf-fish, the numerous divisions of the pulp anastomose with each other, like the medullary canals of bone. This form of ivory presents in many animals, particularly in the walrus, the most striking resemblance to bone; the divisions of the pulp are seen surrounded with concentric laminæ, which, like the layers of bone surrounding the medullary canals, contain rings of cells or corpuscules, and these laminæ, again, are traversed by fine radiating tubes analogous to the radiating striæ in bone, which were supposed by Deutsch to be tubes."

Professor Retzius ascribes to the dental tubes and cells, the office of distributing to the tooth a nutritive fluid secreted by the surface of the pulp, and while he does not believe that the dentinal and cortical substances undergo any change, he is of the opinion that they are the seat of a vital process, consisting in an interchange of the fluid of a tooth, which operation he regards necessary to preserve in them that property by which they are enabled to endure constant pressure without injury or loss of substance.* But that the dentinal part of a tooth is vascular, and, under certain circumstances, capable of being injected with red blood, is now well established. The author has several preparations of tooth-bone, in which, when examined under the microscope, vessels injected with red blood, are seen.

The researches of professor Owen confirm most of the observations of Retzius. He says, "The prolongation or persistence of cylindrical canals of the pulp cavity in the dentinal tissue, which is the essential character of vascular dentine, manifests itself under a variety of forms. In mammals and reptiles, these canals, which I have termed 'medullary,' from their close analogy with the so called canals of bone, are straight, and more or less parallel with each other; they bifurcate, though rarely; and when they anastomose, as in the megatherium, it is by a loop at, or near, the periphery of the vascular dentine. In the teeth of fishes, in which the distinction between the dentinal and osseous tissues is gradually effaced, the medullary canals of the vascular dentine, though in some instances straight and parallel, and sparingly divided or united, yet are generally more or less bent, frequently and successively branched, and the subdivisions blended together in so many parts of the tooth, as to form a rich reticulation. The calcigerous tubes sent off into the interspaces of the net-work, partake of the irregular character of the canals from which they spring, and fill the meshes with a moss-like plexus."*

The microscopical researches of Mr. Nasmyth demonstrate that tooth-bone is essentially cellular in its structure. The fibres he found to be interspersed and made up of different compartments, the shape and size of which vary in different animals. In the human tooth they are oval, their long axis corresponding with the course of the fibre, and the extremity of each in apposition to the adjoining one. The cells constitute the frame-work in which the osseous matter is deposited, and thus become the fibres of the bone of the tooth. See Dental Pulp.†

The researches of Leeuwenhœk, Fraenknel, Purkinje and Schwan, have also thrown much valuable light on the structural arrangement of tooth-bone.

Tooth-Brush. An instrument composed of small bundles of prepared hog's bristles, secured in a long narrow piece of bone or ivory, by means of sealing-way, or some other cement or wire, and employed for cleaning the teeth. It is a valuable dental hygienic agent, and the toilet of no one can be regarded as complete without it. The size of a tooth-brush should vary according to the length of the crowns of the teeth of the individual. For the deciduous teeth, a brush with three rows of bristles is large enough, but for the permanent teeth, from four to six rows are required, and as a general rule, the bristles should be about three-eighths of an inch long. The bristles should also be so securely fixed in the handle as to prevent them from loosening and coming out. This is a fault which most of the brushes vended in the shops have. But it is not the only one. The bristles of some are so stiff that they cannot

* Vide *Appendix to Muller's Physiology.*

* Vide *Odontography.*

† Vide *Three Memoirs on the Structure and Development of the Teeth, &c.*

be used without lacerating or wounding the gums, while others are too soft to effect the object which it is necessary to accomplish by their use, namely, the removal of clammy mucus and other offensive matters from the teeth.

The bristles of a tooth-brush should be moderately soft at their extremities, but firmer near their insertion into the handle, and have a sufficient degree of elasticity to enable them to adapt themselves readily to the various inequalities of the teeth. These qualities are essential to a good brush.

The English tooth-brushes, though more expensive, are better made, and as a consequence, more durable than the American. The bristles of the best quality of English brushes are secured in the handle with silver wire.

Although most of the tooth-brushes brought from France are of a very inferior quality, very superior ones are manufactured there.

Tooth-Pick. A flexible and elastic sharp-pointed instrument, employed for the removal of extraneous matters from between the teeth. It is made of metal, whalebone, wood, or the quill of a goose or other fowl. A tooth-pick made from the quill of a goose, is better than either a metallic or wood pick. Next to a brush and floss-silk, a tooth-pick ranks among the most important dental hygienic agents.

Tooth-Polisher, Argillaceous.—An instrument invented by Dr. L. S. Parmly, for the removal of stains and discolorations from the teeth. It consists of a cylindrical piece of baked clay, about five inches long, and one-fourth in diameter, flattened and bent at each end to an angle of nearly ninety degrees. In using it, one of the flattened extremities is first moistened in water, and then rubbed upon the tooth until the stain or discoloration is removed. Dr. Parmly believes this to be better than a steel instrument, for the reason that it inflicts less injury upon the enamel, and leaves a smoother surface.

Tooth-Rash. Strophulus.

Tooth-Shape. Dentate.

Tooth-Syringe. *Odonenchytes.* A small instrument, made of gold, silver, or glass, in the form of a pump, with a nozel about an inch long, curved so as to form near a right angle, and used to draw in any fluid, which is done by means of a pistern, and then to expel it into the cavity of a tooth. It is used principally for cleansing cavities in teeth, preparatory to filling.

TOPHA'CEOUS. Gritty; sandy; resembling a soft stone.

TOPHUS. A collection of calcareous matter in the joints. Also, gravel.

TOP'ICAL. *Topicus;* from τοπος, a place. Limited; local. In *Therapeutics*, the application of a remedy to a particular part.

TOPICUS. Local.

TOR'CULAR. From *torqueo*, to twist. A tourniquet. Also, a press.

Torcular Heroph'ili. The press of Herophilus; a smooth and polished cavity, of irregular shape, of the dura mater, called the fourth sinus.

TORDYL'IUM OFFICINA'LE. Seseli creticum.

TORMENTIL'LA. Tormentilla erecta. Also, the name of a genus of plants.

Tormentilla Erecta. The upright septfoil.

TORMEN'TUM. The ileac passion; intussusceptio.

TOR'MINA. Severe colicky pains. Dysentery.

TORPE'DO. The name of a fish that inhabits the Mediterranean, the touch of which is attended by an electric shock. The raia torpedo.

TOR'POR. From *torpere*, to be numbed. Deficiency of sensation; numbness; inactivity; a sluggish condition of a part or of the whole body.

Torpor Intestino'rum. Constipation.

TOR'SION. *Torsio.* Twisting. The torsion of a divided artery is sometimes resorted to for the purpose of arresting hemorrhage. Some French writers

have applied this term to a species of malformation of the jaws, whereby the upper teeth on one side of the mouth are caused to shut on the outside of the teeth of the lower jaw on the same side, from the median line, and on the other side to fall on the inside of the lower teeth.

TORTUO'SUS. Twisted; tortuous.

TORTU'RA ORIS. Risus sardonicus.

TOUCH. *Tactus.* The sense by which we are enabled to know the palpable qualities of bodies by feeling them; one of the five senses.

TOUCH-ME-NOT. Balsam weed.

TOUCHARD. Author of a Description of a Tooth-plugger, with Remarks upon Artificial Teeth. Paris, 1814.

TOUCHWOOD. Boletus igniarius.

TOUR'NIQUET. From Fr. *tourner*, to turn. A surgical instrument, or bandage, tightened by a screw, employed to suspend the circulation of blood in a limb, by compressing the principal artery, during the performance of an operation involving the division of large arteries.

TOUS-LES-MOIS. A variety of fecula obtained from the root of the *canna coccinea.*

TOWNSEND, E. Author of a Paper on the Elevation of the Dental Profession, read before the American Society of Dental Surgeons, and published in the American Journal of Dental Science, volume sixth.

TOXICODEN'DRUM. Poison oak.

TOXICOHÆ'MIA. From τοξικον, a poison, and αιμα, blood. Poisoning of the blood.

TOXICOL'OGY. *Toxicologia;*—from τοξικον, a poison, and λογος, a discourse. A treatise on poisons.

TOX'ICUM. A poison.

TRABEC'ULA. The thread-like processes of the dura mater, and the medullary fibres of the brain, constituting the commissures.

TRACHE'A. From τραχυς, rough. The wind-pipe. A cylindrical, fibro-cartilaginous, and membranous tube, through which the air passes to the lungs. Commencing with the larynx, it extends to the fourth or fifth dorsal vertebra, where it divides into the right and left bronchial tubes, one going to each lung. It is composed of cartilaginous rings, fibrous and mucous membrane, muscular fibres, vessels and nerves.

TRACHEÆ. The breathing tubes of insects.

TRA'CHEAL. *Trachealis.* Pertaining to the trachea.

TRACHEI'TIS. Cynanche trachealis.

TRACHE'LAGRA. Rheumatism in the neck; wry-neck; stiff-neck.

TRACHELI'PODS. *Trachelipoda;* from τραχηλος, a neck, and πους, a foot. An order of mollusks, which have the locomotive foot attached to the under part of the head or neck.

TRACHE'LIUM. The great throat-wort.

TRACHELOCE'LE. Bronchocele.

TRACHE'LO-DIAPHRAGMAT'IC NERVES. The fourth pair of cervical nerves.

TRACHELO-MASTOIDE'US. A muscle of the neck.

TRACHEOT'OMY. *Tracheotomia;* from τραχεια, the trachea, and τεμνω, to cut. Bronchotomy.

TRACHI'TIS. From τραχεια, the trache, and *itis*, a terminal, denoting inflammation. Inflammation of the trachea. Cynanche trachealis.

TRACHO'MA. From τραχυς, rough. A variety of opthalmia, characterized by roughness of the inner surface of the eyelid, and severe pain whenever it is moved.

TRACTORS, METALLIC. A pretended therapeutic agent, consisting of two metallic rods, each made of a different metal, employed by Dr. Elisha Perkins, of Norwich, Connecticut, near the close of the last century. The manner of applying these rŏds to the cure of disease, consisted in drawing their pointed extremities over the affected or other part of the body, which operation was called *tractoration.*

TRACT'US. From *traho*, to draw. A drawing in length; a region; a tract, or space.

TRACTUS MOTORIUS. The motor tract; a prolongation of the corpora pyramidalia through the pons varolii into the crura cerebri.

TRACTUS RESPIRATORIUS. The respiratory tract.

TRAGACAN'THA. Tragacanth; the concrete juice of the astragalus tragacantha.

TRAG'ICUS. A small flat muscle of the ear which nearly covers the outer surface of the tragus.

TRAGOPO'GON. The name of a genus of plants.

TRAGOPOGON PRATEN'SE. The common goat's-beard.

TRAGOSELI'NUM. Pimpinella saxifraga.

TRAG'US. In *Anatomy*, a small, triangular eminence situated before the meatus auditorius externus.

TRA'MIS. The perinæum.

TRANCE. Catalepsy; ecstasy.

TRANSFORMA'TION. In *Pathology*, the conversion of the texture of a part into one natural to some other part.

TRANSFU'SION. *Transfusio;* from *transfundere*, to pour from one vessel into another. The transmission of the blood of one animal into the veins of that of another.

TRANSLA'TION. In *Pathology*, metastasis.

TRANSPLANTA'TION. In *Therapeutics*, a pretended method of curing disease by making them pass from one person to another. In *Botany*, the removal of a plant to a different place for growth. In *Dental Surgery*, the removal of a sound and healthy tooth from the mouth of one person, and placing it into an alveolus from which a tooth has just been extracted, in the mouth of another. The celebrated French surgeon, Ambrose Paré, was the first to describe this operation, but it does not seem to have been very frequently practiced, until the time of that eminent English anatomist and surgeon, John Hunter, who is very generally regarded as the originator of it.

Although Mr. Hunter regarded the success of the operation as certain, in the majority of cases, asserting that he had known even dead teeth to grow, it is hardly necessary to say, that it soon fell into disrepute, and has ceased altogether to be performed. That a man of Mr. Hunter's acumen and physiological knowledge should have committed so palpaple an error as to suppose that a tooth after having become deprived of its vitality could again be re-endowed with a living principle by being placed into a fresh alveolus, can only be accounted for by supposing that his practical observations were not sufficient to enable him to distinguish a dead from a living tooth. Not only was the operation a very painful one, but it was also attended with danger, as is shown by a case reported by Dr. Watson in the Medical Transactions of the College of Physicians, in which a young lady fell a victim to it.

TRANSPIRA'TION. *Transpiratio.* The act of passing off through the excretories of the skin; cutaneous exhalation; perspiration.

TRANSPOSI'TION. *Transpositio;* from *trans*, over, and *ponere*, to put. Change of situation; the state of being reciprocally changed in place. In *Anatomy*, a congenital vice of conformation, consisting in the development of one organ in the place of another, as the heart on the right side, and the liver on the left.

TRANSPOSITION OF TEETH. See Teeth, transposition of the.

TRANSUDA'TION. *Transudatio;* from *trans*, through, and *sudare, sudatum*, to sweat. The passage of a fluid through the pores of any thing, or the tissue of any organ. Exosmose.

TRANSVERSA'LIS. A term applied, in *Anatomy*, to muscles, vessels, &c. which have a transverse direction.

TRANSVERSALIS ABDOMINIS. A mus-

cle situated on the lateral and anterior parts of the abdomen.

Transversalis Anticus Primus.—Rectus capitis lateralis.

Transversalis Colli. A muscle situated on the back part of the neck.

Transversalis Major Colli. Longissimus dorsi.

Transversalis Nasi. The compressor naris.

TRANS'VERSE. *Transversus;*—from *trans*, over, and *vertere*, to turn. Running across; having a cross direction. In *Anatomy*, relating to the transverse processes of the vertebræ.

Transverse Suture. *Sutura transversalis.* The suture which crosses the face, uniting the bones of the skull to the bones of the face.

TRANSVER'SUS. Transverse.

Transversus Auris. A muscle of the external ear.

Transversus Perinæ'i. A muscle situated at the posterior part of the perinæum.

Transversus Perinæi Alter. A small muscle which sometimes accompanies the last.

TRA'PA. The name of a genus of plants.

Trapa Natans. The plant which produces the nux aquatica.

TRAPE'ZIUM, OS. The first bone of the second row of the carpus, so called from its shape.

TRAPE'ZIUS. From τραπεζιον, a geometrical figure. A muscle situated at the posterior part of the neck and back.

TRAPEZOI'DES OS. The second bone of the second row of the carpus.

TRASTUS, TH. Dissertation on the Disappearance of the Teeth, by. Figuri, 1595.

TRAUMA. A wound.

TRAUMAT'IC. *Traumaticus;*—from τραυμα, a wound. Relating to a wound.

Traumatic Pleurisy. Inflammation of the pleura produced by a wound, such as of a fractured rib, &c.

TRAVELER'S JOY. Clematis vitalba.

TREACLE. Molasses.

Treacle, Mustard. Thlaspi arvense.

Treacle, Venice. Mithridatium.

TRECURTH. Dissertation on Tooth-ache, by. Halle, 1688.

TREE, LIVERWORT. Lichen olivarius.

TREE OF LIFE. Thuya occidentalis.

TREFOIL. Trifolium.

TRE'MATODES. *Trematoda;*—from τρημα, a hole. The order of entozoa which have the organs of imbibition and adhesion in the form of suckers.

TREM'BLES. Milk sickness.

TREM'BLING. Tremor.

TRE'MOR. From *tremere*, to tremble. Trembling; involunaty agitation of the body or some part of it.

Tremor Cordis. Palpitation of the heart.

TRENCH'ANT. Sharp-edged; cutting.

TRENOR, JOHN. Author of a paper on Tic Douloureux; published, New York, 1824.—Also, one on the Structure, Organization and Nourishment of the Teeth; published, New York, 1826.

TREPAN'. *Trepanum;* from τρυπαω, I perforate. An instrument resembling a wimble, employed by surgeons for the perforation and removal of depressed, fractured, or carious bone.

TREPAN'NING. The act of perforating with a trepan.

TREPHINE. A cylindrical saw, with a handle placed transversely, like that of a gimblet, and a perforator in the centre, which serves as an axis for the saw to rotate upon until it has formed a groove in the bone, when it may be removed. This is a more modern instrument than the trepan.

Trephine, Elliot's Dental. An instrument invented by Dr. Elliot, of Montreal, for separating the inner fang

of the upper molares from the outer ones, when it is required, to render their removal of the tooth less difficult. This instrument has its centre thrust out by a spring, and the teeth occupy about one-third of the circle. When in use, the centre of the instrument is introduced into the centre of the inner fang, and then by a reciprocating motion this fang may be separated from the others.

TREPIDA'TION. *Trepidatio;*—from *trepidare*, to tremble. Involuntary trembling, particularly from fear.

TREPIDATIO. Tremor.

Trepidatio Cordis. Tremor cordis.

TREPONDO. A weight of three pounds.

TRE'SIS. From τρεω, I bore. A perforation; a wound.

TRIAN'DRIA. *Triandrous;* from τρεις, three, and ανηρ, a man. Plants which have three male organs or stamens.

TRIAN'GULAR. *Triangularis.* A term applied, in *Anatomy*, to parts which have a triangular figure.

TRIANGULARIS ORIS. The depressor anguli oris.

Triangularis Sterni. *Sternocostales.* A muscle, of the shape of a lengthened triangle, situated at the anterior part of the chest, behind the cartilages of the ribs.

TRICAUDA'LIS. Three-tailed.

TRI'CEPS. From *tres*, three, and *caput*, a head. Three-headed.

Triceps Adductor Femoris. An appellation comprehending three distinct muscles, namely, the *adductor brevis; adductor longus,* and *adductor magnus.*

Triceps Auris. Retrahens auris.

Triceps Cruris. A name given to the vastus externus and vastus internus cruræus.

Triceps Extensor Cubiti. A muscle situated at the posterior part of the os humeri. It is described by Douglas, as two distinct muscles, and by Winslow, as three.

TRICHIA. Entropion.

TRICHI'ASIS. *Trichioses;* from θριξ, a hair. Inversion of the eyelashes. Also, a morbid affection of the kidney in which hair-like filaments are discharged with the urine. The term is applied, too, to a painful swelling of the female breasts, supposed by the ancients to be owing to the accidental swallowing of a hair.

TRICHI'NA SPIRA'LIS. A species of entozoon, found in the muscles of voluntary motion.

TRICHIS'MUS. From θριξ, a hair. An almost imperceptible fracture which appears like a hair.

TRICHOCEPH'ALUS. From θριξ, a hair, and κεφαλη, the head. The long thread-worm, which infests the cœcum and colon of the human subject.

TRICHO'MA. From θριξ, a hair. Plica polonica.

TRICHOMO'NAS VAGINALIS. A name given to an animalcule found by Donne in the mucus of the vagina during syphilis.

TRICHO'SIS. From θριξ, a hair. A genus in Dr. Good's *Nosology*, comprehending most of the diseases of the hair.

TRICHOTON. The scalp.

TRICHOT'OMOUS. *Trichotomus.* Divided into three parts; three-cleft.

TRICHU'RIS. Trichocephalus.

TRICOC'COUS. Three-seeded.

TRICUS'PID. *Tricuspis;* from *tres*, three, and *cuspis*, a point. Three pointed.

Tricuspid Valve. A valve of the heart, situated between the auricle and ventricle on the right side.

TRICUSPIDATE. Tricuspid.

TRIDAC'TYLE. Three-fingered.

TRIFACIAL NERVE. Trigemini.

TRIFO'LIUM. The name of a genus of plants.

Trifolium Acetosum. Wood-sorrel.

Trifolium Aquaticum. The buck-bean.

Trifolium Arvense. The hair's-foot trefoil.

Trifolium Aureum. The hepatica, or herb trinity.

TRIFOLIUM MELILO'TUS OFFICINA'LIS. The officinal melilot.

TRIFOLIUM PALUDOSUM. Trifolium aquaticum.

TRIGAS'TRIC. A term applid, in *Anatomy*, to muscles which have three bellies.

TRIGEM'INI. *Trigeminus;* from *tres*, three, and *geminus*, double. The fifth and largest pair of the cranial nerves. It is the great sensitive nerve of the head and face, and arises in front of the floor of the fourth ventricle, behind the crura cerebelli, and at the Casserian ganglion; it divides into three branches, the *opthalmic*, the *superior*, and the *inferior maxillary*, which see.

TRIGONEL'LA. The name of a genus of plants.

TRIGONELLA FŒNUM. *Fœnum græcum*. The fœnugreek.

TRIGO'NUS. Triangular.

TRIGYN'IA. *Trigynous*. A term applied, in *Botany*, to plants which have three pistils.

TRILL'IUM LATIFO'LIUM.—Broad-leaf bethroot; rattlesnake root; Indian balm.

TRILO'BATE. *Trilobatus*. Having three lobes.

TRILOC'ULAR. In *Botany*, three-celled; having three cells for seeds.

TRIOS'TEUM. The name of a genus of plants.

TRIOSTEUM PERFOLIA'TUM. Bastard ipecacuanha; fever root.

TRIPHAR'MACUM. A medicine composed of three ingredients.

TRIPSIS. Trituration.

TRIQUE'TRA OSSIC'ULI. The triangular bones found in the course of the lambdoidal suture.

TRIQUETRUM. A triangle.

TRIRADIATE. Consisting of three rays or spokes.

TRIS'MUS. From τριζω, I gnash. Literally, gnashing of the teeth, but in *Pathology*, a spasmodic contraction of the muscles of the jaw. Locked jaw, or lock-jaw.

TRISMUS NASCENTIUM. Lock-jaw attacking infants during the two first weeks from birth.

TRISMUS TRAUMAT'ICUS. Lock-jaw originating from a wound.

TRISPLANCH'NIC. *Trisplanchnicus;* from τρις, three, and σπλαγχνον, viscus. That which relates to the three orders of viscera.

TRISPLANCHNIC NERVE. The great sympathetic nerve.

TRIS'SAGO. The common germander.

TRIT'ICUM. The name of a genus of plants.

TRITICUM HYBERN'UM. Wheat.

TRITICUM REPENS. Dog's-grass; couch-grass.

TRITORIUM. A mortar.

TRITURA'TION. *Trituratio;* from *terere, tritum*, to bruise. The reduction of a solid body to a powder.

TROCAR. A perforator with a triangular-shaped point, partially enclosed in a canula, and employed for evacuating fluids from cavities, particularly in dropsy.

TROCHAN'TER. From τροχαω, I turn. A name given to two processes on the upper extremity of the thigh bone. They are distinguished into greater and lesser.

TROCHANTE'RIAN. Relating to the greater trochanter.

TROCHANTIN'IAN. Relating to the lesser trochanter.

TROCHIS'CUS. Diminutive of τροχος, a wheel. A troch or round tablet. A solid medicine composed of powders incorporated with glutinous substances, and made into small cakes and dried.

TROCHIS'CI CRETÆ. Troches of chalk.

TROCHISCI GLYCYRRHI'ZÆ ET OPII. Troches of liquorice and opium.

TROCHISCI IPECACUANHÆ. Troches of ipecacuanha.

TROCHISCI MAGNESIÆ. Troches of magnesia.

TROCHISCI MENTHÆ PIPERITÆ.—Troches of peppermint.

TROCHISCI NITRA'TIS POTAS'SÆ. Troches of nitras potassæ.

TROCH'LEA. A pulley; from τρεχω, to run. A kind of cartilaginous pulley through which the tendon of the trochlearis muscle passes.

TROCHLEA'RIS. The obliquus superior oculi.

TROCHLEA'TOR. The nerve which supplies the trochlearis muscle.

TROCHOI'DES. From τροχος, a wheel, and ειδος, a resemblace. A term applied, in *Anatomy*, to an articulation in which one bone rotates upon another, like a wheel upon its axle; as the *atlas* upon the odontoid process of the *dentata*.

TROPÆ'OLUM. The name of a genus of plants.

TROPÆOLUM MAJUS. Indian cress, or nasturtium.

TROPHE. Food; aliment.

TROPHI. From τροφος, a nourisher. The part of the mouth employed in insects in acquiring and preparing the food.

TROPH'ICAL. Pertaining to nourishment or nutrition.

TRUFFLE. Tuber cibarium.

TROUBAT. Accidents from Difficult and Laborious Dentition, with certain Means to Remedy it, by. Mayence, 1824.

TRUNCA'TED. *Truncatus*. Cut off; cut short, lopped; appearing as if cut off.

TRUNK. *Truncus*. In *Anatomy*, that portion of the body to which the limbs are articulated. It is divided into three parts, the *thorax*, *abdomen*, and *pelvis*.

TRUSS. A term derived from the French word *trousse*, to tie up, and applied to a hernial bandage, which at the present day, consists of a steel spring with two pads, one to be applied to the back as a point of support, and the other over the hernia.

TUBA. From *tubus*, any hollow vessel. A tube.

TUBE. *Tuba*. A term applied, in *Anatomy*, to some parts which are hollow.

TUBE, EUSTACHIAN. A tube, extending from the cavity of the tympanum to the posterior nares, between which it forms a communication.

TUBE, FALLOPIAN. A canal on each side of the uterus, extending from the superior angle to near the ovarium.

TU'BER. From *tumere*, to swell, or grow big. A term applied, in *Anatomy*, to parts which are rounded. In *Surgery*, a knot or swelling in any part. In *Botany*, a subterranean stem, like the potato. Also, the name of a genus of fungi.

TUBER ANNULARE. *Pons varolii*.—An eminence of the medulla oblongata.

TUBER CIBARUM. The truffle, a tuberculated, subterranean fungus.

TUBER CINEREUM. A grayish tubercle, forming part of the floor of the third ventricle of the brain.

TUBER ISCHII. The tuberosity of the ischium.

TU'BERCLE. *Tuberculum*; from *tuber*, a bunch. A term applied, in *Anatomy*, to certain processes or projections on the surfaces of parts, or in the structure of medullary organs, as the tubercle of a human rib. In *Pathology*, a pimple, or tumor. The term, however, is applied to a species of degeneration consisting of an opaque matter, of a whitish, yellowish, or gray color, developed in different textures of the body, but most frequently in the lungs and mesentery.

TUBER'CULA. An order of cutaneous diseases in Willan, consisting of small, hard, superficial, circumscribed and well defined tumors, which are permanent, or suppurating partially, comprehending nine genera, viz. *phyma*, *verruca*, *molluscum*, *vitiligo*, *acne*, *sycosis*, *lupus*, *elephantiasis*, and *frambœsea*.

TUBERCULA ARANTII. The small eminences on the semilunar valves of the aorta and pulmonary artery.

TUBERCULA QUADRIGEM'INA. Two oval eminences situated on each side,

at the posterior part of the third ventricle of the brain.

TUBER'CULAR. *Tuberculous.*—Relating to, or having, tubercles.

TUBER'CULATE. Covered with tubercles.

TUBERCULO'SIS. Tubercular diathesis.

TUBERCULOUS. Tubercular.

TUBERCULUM LOWERI. An eminence where the two venæ cavæ meet in the right auricle of the heart, first described by Lower.

TUBEROS'ITY. From *tuber*, a bunch. A rough projection or process on a bone which gives attachment to muscles or ligaments.

TU'BULAR. *Tubularis.* Having the form of a tube.

TU'BULATED. Furnished with a tube, as a retort.

TUBULI LACTIF'ERI. The ducts in the nipple through which the milk passes.

TUBULI DURÆ MATRIS. The sinuses of the dura mater.

TUBULI SEMINIFERI. The minute tubes which constitute the parenchyma of the testis.

TUBULI URINIFERI. The minute excretory ducts of the tubular substance of the kidney.

TU'BULOUS. Tubular.

TU'BULUS. A small tube.

TULIP TREE. Liriodendron tulipiferum.

TULLER. A Popular Essay on the Structure, Formation and Management of the Teeth; new edition with an introduction by Downing, published, London, 1815. The above is a work of considerable merit, and had the author's life been spared a few years, he would have ranked among the most scientific English practitioners of dental surgery.

TUMEFAC'TION. From *tumefacio*, to make tumid. Act of swelling into a tumor; a swelling.

TUMOR. *Tumour*; from *tumeo*, I swell. A morbid enlargement of any part of the body; a permanent swelling. Abernethy restricts the term *tumor* to such swellings as arise from new productions, including only the *sarcomatous*, which are of a firm and fleshy consistence, and the *encysted*, which are formed in a membranous sac. The former he divides into, 1. The *common vascular*, or *organized sarcoma*. 2. *Adipose sarcoma*. 3. *Pancreatic sarcoma*, from its resemblance to the pancreas. 4. *Mastoid*, or *mammary sarcoma*, from its resemblance to the structure of the mammary gland. 5. *Tuberculated sarcoma*, which is composed of small, ovoid tumors, varying in size and color, and connected by cellular tissue. 6. *Medullary sarcoma*, from its resemblance to the medullary substance of the brain. This variety is commonly designated by the name of *fungus hæmatodes*. 7. The *carcinomatus sarcoma*, constituting the cancerous tumor. *Encysted tumors* he divides into, 1. *Steatomatous*, which contain fatty matter. 2. *Melicerous*, the substance of which bears some resemblance to honey. 3. *Atheromatous*, which are of a paste-like consistence.

The nature and malignancy of a tumor is determined not only by the causes which give rise to its development, but also by its seat and the state of the general health, and constitutional diathesis of the individual.

TUMORS OF THE GUMS AND ALVEOLAR PROCESSES. See Jaws, diseases of.

TUNG'STATE. A salt formed of tungstic acid and a base.

TUNGSTEN. A brittle metal, nearly as hard as steel, of a grayish-white color, and considerable lustre.

TUNIC. *Tunica.* In *Anatomy*, a membrane, or covering to some part or organ, as the *tunics* of the eye, &c.

TUNICA ACINIFORMIS. The uvea.

TUNICA ADNATA. The conjunctiva.

TUNICA ALBUGINEA OCULI. The fibrous membrane of the eye, situated immediately under the conjunctiva.

TUNICA ALBUGINEA TESTIS. The albuginea testis.

TUNICA ARACHNOIDEA. The arachnoid membrane.

TUNICA CHOROIDES. The choroid membrane.

TUNICA CONJUNCTIVA. The conjunctiva.

TUNICA CORNEA. The cornea of the eye.

TUNICA ELYTROIDES. The tunica vaginalis.

TUNICA ERYTHROIDES. The cremaster.

TUNICA RETINA. The retina.

TUNICA VASCULOSA TESTIS. A delicate membrane formed of minute ramifications of the spermatic vessels, on the inner surface of the tunica albuginea, enclosing the substance of the gland, and constituting the membrane of the testis.

TUNICA VASCULOSA RETINÆ. The inner lamina of the retina. It is of a fibro-vascular structure, and supports the outer medullary lamina.

TUNICA VILLOSA The inner coat of the intestines.

TUNICA VITREA. The hyaloid membrane.

TUNICATA. From *tunica*, a tunic. An order of acephalous mollusks which are covered with a soft, elastic tunic.

TUR'BINATED. *Turbinatus;* from *turbo*, or *turben*, a top. Shaped like a top, or inverted cone.

TURBINATED BONES. Very thin convoluted plates of bone, situated in the nasal fossæ. They are distinguished into the *superior* and *inferior*. The spongy bones.

TURGES'CENCE. *Turgescentia;* from *turgescere*, to swell. A preternatural accumulation of blood or other fluid in a part; a state of distention.

TURGESCENCE OF THE GUMS. A swollen or distended condition of the margins of the gums. See Gums, turgescence and ulceration of.

TUR'GID. *Turgidus;* from *turgere*, to swell or puff up. Swollen.

TURGOR VITALIS. Turgescence.

TURMERIC. Curcuma longa.

TURNING A term applied, in *Obstetrics*, to the operation of bringing down the feet of the child in utero, for the purpose of facilitating delivery.

TURNIP. Brassica rapa.

TURNIP, INDIAN. Aurum triphyllum.

TURPEN'TINE. *Terebinthina.*—The resinous juice of pine trees.

TURPETH MINERAL. Hydrargyrus vitriolatus.

TURPETHUM. The turbith plant.

TURUN'DA. A tent.

TUSSILA'GO. The tussilago farfara. Also, the name of a genus of plants.

TUSSILAGO FAR'FARA. Colt's-foot.

TUSSILAGO PETASI'TES. Butter-bur; pestilent-wort.

TUSSIS. A cough.

TUSSIS CONVULSIVA. Hooping-cough.

TUTAM'INA. *Tutamen;* a defence, a protection. A term applied, in *Anatomy*, to parts which seem to defend or protect certain organs.

TUTAMINA CEREBRI. The scalp and bones of the skull.

TUTIA. Tutty. The gray incrustation which forms on the chimneys of furnaces, in which the ores of zinc are smelted. It is an impure oxyd of zinc.

TWINKLING OF THE EYE.—Nictation.

TWINS. Two children born at a birth.

TWITCH'ING. In *Pathology*, short spastic contractions.

TYCH'ICA. From τυχη, accident. Fortuitous lesions.

TYLER, NATHANIEL S. Nathaniel S. Tyler, late surgeon dentist of Providence, R. I., was born in Barnstable, Massachusetts, in 1814. His father died while he was young, and leaving but small means for the support of a numerous family, his educational advantages were limited. He studied dentistry under Dr. Allen of Deerfield, Mass., a gentleman, who united this branch to the practice of medicine. After leaving Dr. A. he

opened an office in Springfield, Mass., where he resided about three years. He then removed to Providence, where he remained until his death, which occured on the last day of December, 1847.

In a letter to the author, Dr. N. A. Fisher, says, as a dentist, Dr. T. had few superiors. The most eminent, at home and abroad, have frequently testified to his high merits. He was a careful observer, and strove to make every day's experience contribute something useful to his stock of knowledge. He possessed a sound judgment and ready tact that prepared him for any exigency, and his mechanical ingenuity enabled him to execute, as well as design, much to effect the end desired.

He had that love, too, for his profession, which is indispensable for excellence—a love that was not satisfied with large gains, but one that comprehended its advancement and sought to enlarge its usefulness.

As a man, Dr. T. possessed, in a high degree, those excellent qualities that gains the confidence and wins the esteem of his fellow men. His integrity, his generosity, his amiability, endeared to him a numerous circle of friends who lamented his loss.

He died of consumption, a tendency to which disease he no doubt inherited, but his too close application to the duties of his profession, plainly contributed to its development.

TYLER, LEVI S. Levi S. Tyler, brother of Dr. Nathaniel S., and some few years his junior, received his professional education under his tuition, and died in May, 1847. For the following details of his life, the author is indebted to Dr. Fisher. He practiced his profession in Cabotville, near Springfield, Mass., and very sucessfully, until his brother's health failed him, when he undertook to supply his place in his office. For this, however, he found himself incapable. In a few months a dangerous hemorrhage of the lungs occurred while using the blow-pipe, and from this he never recovered. With his brother he sought relief in a change of climate. They went to Florida in December, 1846, but his disease made fearful progress, and leaving his brother, he hastened home to die. He survived but a few days after reaching his family.

He was a dentist of much promise and a young man of most estimable character.

TYLO'SIS. *Tyloma.* Induration of the margin of the eyelids.

TYMPANI'TES. From τυμπανον, a drum, so called because the abdomen is distended with wind, and sounds like a drum when struck. Distention of the abdomen arising from an accumulation of air. There are two species, 1. *Tympanites intestinalis,* consisting in an accumulation of gas in the intestines, and 2. *Typanites abdominalis,* when the air is contained in the cavity of the peritoneum.

Tympanites, Uterine. A windy swelling of the uterus.

TYMPANI'TIS. From τυμπανον, a drum, and *itis,* inflammation. Inflammation of the tympanum of the ear.

TYM'PANUM. The drum of the ear.

TYM'PANY. Tympanites.

TYPE. *Typus.* From τυπος, a stamp, itself from the root of *tap,* τυπτω, I beat. In *Pathology,* the order in which the symptoms of a disease occur and succeed each other; the character which a disease assumes, especially one of an acute, or febrile nature.

TYPHA. The name of a genus of plants.

Typha Aromatica. Sweet-flag.

Typha Latifolia. The broad-leaved cat's-tail, or red mace.

TYPHLO-ENTERI'TIS. *Typhlitis;* from τυφλος, the cœcum, and *enteritis,* inflammation of the intestines. Inflammation of the cœcum.

TYPHOHÆMIA. A disorganized state of the blood.

TYPHOID. *Typhoides.* Typhodes. A low fever, resembling typhus.

TYPHOMA'NIA. From τυφος, stupor, and μανια, madness. The kind of delirium which accompanies typhoid fevers.

TYPHUS. From τυφος, stupor. A fever characterized by extreme depression of strength; small, weak, frequent and unequal pulse, and much cerebral derangement. It is distinguished by most writers into *typhus mitior*, mild typhus or nervous fever, and *typhus gravior*, a severe malignant typhus.

Typhus Car'cerum. The jail fever.

Typhus Castrensis. The camp fever.

Typhus Gravior. Malignant typhus fever.

Typhus Ictero'des. The yellow fever.

Typhus Mitior. Mild typhus fever; nervous fever.

Typhus Petechia'lis. Typhus gravior.

TYREM'ESIS. *Tyrotemeses*; from τυρος, cheese, and εμεσις, vomiting. A vomiting of curdy matter.

TYRIA'SIS. Tubercular elephantiasis.

TYROS. Cheese.

TYRO'MA. A tumor of a cheese-like structure.

U.

ULA. The gums.

ULATROPH'IA. From ουλος, the gum, and *atrophia*; atrophy. A gradual shrinking or recession of the gums from the necks of the teeth. This affection may be produced by an accumulation of salivary calculus upon the teeth, or by irregularity in the arrangement, diminution, or complete loss of the vitality, of these organs. See Gums, diseases of the.

ULCER. *Ulcus*. A solution of continuity in the soft parts, accompanied by a discharge of purulent matter, occasioned, and kept up by some local or constitutional injury or defect.—In popular language, a running sore. Ulcers are distinguished into, 1. The *simple ulcer*, resulting from a superficial wound. 2. The *sinuous*, in which the matter runs under integuments and escapes from a small, but not callous, orifice. 3. The *fistulous*, a deep ulcer, with a small callous orifice. 4. The *fungous*, where the surface is covered with fungous flesh. 5. The *gangrenous*. 6. The *scorbutic*, depending upon a scorbutic diathesis of the general system. 7. The *venereal*, resulting from the venereal disease. 8. The *cancerous*. 9. The *carious*, depending upon a carious bone. 10. The *inveterate*, which is of long continuance, and 11. The *scrofulous*.

Ulcer, Malignant. A putrid ulcer; hospital gangrene.

ULCERA SERPENTIA ORIS.—Aphthæ.

ULCERA'TION. *Ulceratio*. The formation of an ulcer.

Ulceration of the Gums. See Gums, turgescence and ulceration of the.

UL'CEROUS. Having the character of an ulcer.

ULCUS. An ulcer.

ULI'TIS. Inflammation of the gums. See Gums, diseases of the.

ULMA'RIA. The meadow-sweet.

UL'MUS. The name of a genus of trees. Also, the common elm.

Ulmus Campes'tris. The common elm.

Ulmus Fulva. The slippery elm.

UL'NA. The inner, and largest bone of the forearm.

ULNAR. Belonging to the ulna.

Ulnar Artery. The branch of the brachial artery which passes down the inner side of the forearm.

ULNARIS EXTERNUS. The extensor carpi ulnaris.

Ulnaris Internus. The flexor carpi ulnaris.

ULON'CUS. From *ουλον*, the gum, and *ογκος*, a tumor. A tumor of the gums. Epulis. See Jaws, diseases of.

ULORRHA'GIA. From *ουλον*, the gums, and *ρηγνυμι*, I break forth. Hemorrhage from the gums. This may occur spontaneously, or result from the mechanical division of some of the vessels of the gums, but unless favored by a hemorrhagic diathesis, it is never very considerable. But when thus favored, it is often difficult to control, and has, in some instances, terminated fatally.—When spontaneous, the blood generally escapes from a number of places, but more frequently from the apices than any other part of the gums. See Hemorrhage from the Gums, spontaneous.

ULOTICA. That which contributes to the healing of ulcers and wounds.

ULVA. The name of a genus of sea-weeds.

Ulva Lactu'ca. Oyster-green laver.

Ulva Umbilicalis. Shield laver.

UMBIL'ICAL. *Umbilicalis;* from *umbilicus*, the naval. Belonging, or relating, to the naval.

Umbilical Chord. *Funis umbilicalis.* The navel string.

Umbilical Hernia. Hernia umbilicalis.

Umbilical Region. The middle portion of the abdomen about the navel.

Umbilical Ring. A fibrous ring surrounding the aperture of the navel.

UMBILI'CUS. The navel.

Umbilicus Mari'nus. A sub-marine production found on rocks and the shells of fishes.

UMBREL'LA TREE. Magnolia tripetala.

UNCIA. An ounce.

UN'CIFORM. *Unciformis;* from *uncus*, a hook, and *forma*, shape. Having the shape of a hook; hook-like.

Unciform Bone. The fourth bone of the second row of the carpus.

Unciform Process. The hamular process of the os sphenoides.

UNCINA'TED. Beset with bent spines like hooks.

UN'CUS. A hook.

UNDULATED. *Undulatus.* Wavy.

UNDULA'TION. A fluctuation.

UNGUEN'TUM. From *ungere*, to anoint. An ointment; a topical application of about the consistence of lard. An *ointment* is softer than a *cerate*, although the terms are often used indiscriminately.

Unguentum Acidi Nitrici. Ointment of nitric acid.

Unguentum Acidi Sulphurici.—Ointment of sulphuric acid.

Unguentum Antimonii. Antimonial ointment; tartar emetic ointment.

Unguentum Aquæ Rosæ. Ointment of rose water.

Unguentum Cantharidis. Ointment of Spanish flies.

Unguentum Cetacei. Spermaceti ointment.

Unguentum Cocculi. Ointment of cocculus indicus.

Unguentum Conii. Ointment of hemlock.

Unguentum Creasoti. Ointment of creasote.

Unguentum Cupri Subacetatis. Ointment of sub-acetate of copper.

Unguentum Elemi. Ointment of elemi.

Unguentum Gallæ. Ointment of galls.

Unguentum Gallæ Compositum. Compound ointment of galls.

Unguentum Hydrargyri. Mercurial ointment; strong mercurial ointment.

Unguentum Hydrargyri Ammoniati. Ointment of ammoniated mercury. Ointment of white precipitate.

Unguentum Hydrargyri Mitius. Mild mercurial ointment.

Unguentum Hydrargyri Iodidi.—Ointment of iodide of mercury.

Unguentum Hydrargyri Biniodidi. Ointment of biniodide of mercury.

Unguentum Hydrargyri Nitratis. Ointment of nitrate of mercury; citrine ointment.

Unguentum Hydrargyri Oxidi Rubri. Ointment of red oxyd of mercury.

Unguentum Iodini. Ointment of iodine.

Unguentum Iodini Compositum.—Compound ointment of iodine.

Unguentum Mezerei. Ointment of mezereon.

Unguentum Picis Liquidæ. Tar ointment.

Unguentum Picis Nigræ. Ointment of black pitch.

Unguentum Piperis Nigri. Ointment of black pepper.

Unguentum Plumbi Acetatis.—Ointment of acetate of lead.

Unguentum Plumbi Carbonatis.—Ointment of carbonate of lead.

Unguentum Plumei Compositum. Compound ointment of lead.

Unguentum Plumbi Iodidi. Ointment of iodide of lead.

Unguentum Potassæ Hydriodatis. Ointment of hydriodate of potassa.

Unguentum Sambuci. Elder ointment.

Unguentum Scrophulariæ. Ointment of figwort.

Unguentum Simplex. Simple ointment.

Unguentum Stramonii. Ointment of stramonium.

Unguentum Sulphuris. Sulphur ointment.

Unguentum Sulphuris Compositum. Compound sulphur ointment.

Unguentum Tabaci. Tobacco ointment.

Unguentum Veratri Albi. Ointment of white hellebore.

Unguentum Zinci Oxidi. Ointment of oxyd of zinc.

UNGUIS. From ονυξ, a hook. In *Anatomy*, the nail; a horny lamina at the extremity of each finger and each toe. In *Surgery*, a collection of pus between the laminæ of the cornea of the eye. Applied, in *Botany*, to the thin inferior part of the petal of a polypetalous corolla.

Unguis Os. The lachrymal bone of the orbit.

UNGULATE. Nail-shaped.

UNICUS. Single.

UNIO. The name of a genus of pearl-shells. Margarita.

UNION. Act of uniting, or joining two or more things into one; state of being united.

Union by the First Intention. In *Surgery*, the process by which the opposite surfaces of a recent wound, when kept in contact, grow together, without suppuration or granulation.

U'NIVALE. From *unus*, one, and *valva*, a valve. A shell composed of one piece.

UNOC'ULUS. *Unioculus*. One-eyed.

UPAS. A term applied, in Java, to several vegetable poisons, of which the *bohun upas* and *upas tieuté*, are the most deadly.

U'RACHUS. From ουρον, urine. A ligamentous chord extending from the base of the urinary bladder to the umbilical chord, which, in the fetus of certain animals, is hollow, and conveys the urine to the allantoid membrane.

URÆ'MIA. From *urea*, and αιμα, blood. A term applied to diseases in which there is an excess of urea in the blood.

URANISCOPLAS'TY. *Uraniscoplastice*; from ουρανισκος, the roof of the mouth, and πλασσω, to form. An operation for the formation of the soft palate.

URANISCORRHA'PHY. Staphyloraphy.

URANIS'COS. The palate.

URA'NIUM. A rare elementary metal of a grayish color.

URATE. A compound of urine with a salifiable base.

URATE OF SODA. The principal ingredient in arthretic calculi.

UREA. A white pearly substance, forming an essential part of urine.

UREC'CHYSIS. From ουρον, urine, and εκχυσις, effusion. Effusion of urine into the cellular membrane.

URE'DO. From *uro*, to burn. A term applied to a burning or itching sensation attending many diseases. Also, urticaria.

URE'SIS. *Uriasis;* from ουρειν, to void urine. The act of voiding the urine.

URE'TER. From ουρον, urine.—The membranous canal extending from the pelvis of the kidney to the urinary bladder, which conveys the urine from the former to the latter organ.

URETERAL'GIA. From ουρητηρ, the ureter, and αλγος, pain. Pain along the course of the ureter.

URETERI'TIS. From ουρητηρ, the ureter, and *itis*, a terminal denoting inflammation. Inflammation of the ureter.

URE'THRA. From ουρον, urine. The excretory duct of the urine in both sexes in the higher animals, and of the semen in the male.

URETHRAL'GIA. From ουρηθρα, the urethra, and αλγος, pain. Pain in the urethra; gonorrhœa.

URETHRI'TIS. From ουρηθρα, the urethra, and *itis*, inflammation. Inflammation of the urethra.

URETHROPHRAX'IS. From ουρηθρα, the urethra, and φρασσω, I obstruct. Obstruction of the urethra; stricture.

URETHRORRHA'GIA. From ουρηθρα, the urethra, and ρηγνυμι, I break out. Hemorrhage from the urethra.

URETHRORRHŒ'A. From ουρηθρα, the urethra, and ρεω, I flow. A mucous discharge from the urethra.

URETHROT'OMY. *Urethrotomia.* An incision of the urethra for the removal of stricture.

URETIC. *Ureticus.* Diuretic; urinary.

URIAS. The urethra.

URIC. Pertaining to urine.

URIC ACID. *Acidum uricum; lithic acid.* An acid which exists in the urine; it constitutes the greater portion of urinary calculi.

URINAC'ULUM. Urachus; urinal.

U'RINAL. *Urinatorium;* from *urina*, urine. A vessel adapted to the penis for the reception of the urine in cases of incontinence.

URINA'RIA. The dandelion or pissabed.

U'RINARY. *Urinarius;* from *urina*, urine. Pertaining to the urine.

URINARY BLADDER. *Vesica urinaria.* A musculo-membranous pouch, situated in the lower part of the abdomen between the symphysis pubis and the beginning of the rectum. It serves for the reception of the urine from the ureters, and when a certain quantity has accumulated, a desire for its expulsion is experienced.

URINARY CALCULI. The calculi which form in the bladder and urinary passages.

URINE. Ουρον; from ορουω, to rush out. The fluid secreted in the kidneys, and slowly conveyed by the ureters into the urinary bladder. When voided in a healthy state, it is transparent, of an amber, or citron-yellow color, of a peculiar odor, and of a slightly bitter, and saline, acid taste.

URINE, ALKALINE. Urine containing an excess of earthy phosphates.

URINE, BLOODY. Hæmaturia.

URINE, DIABETIC. Urine containing sugar, analogous to that of the grape.

URINE, DROPSICAL. Urine containing much albumen and little urea.

URINE, DYSPEPTIC. This contains an excess of urates, and soon putrifies.

URINE, GOUTY. This contains much phosphate of lime, and is often turbid at the time it is voided.

URINE, MILKY. White and turbid urine is so termed.

URINE, NERVOUS. This is almost colorless, limpid and abundant.

URINE, PHOSPHATIC. Urine containing an excess of earthy phosphates.

URINE, PURPURIC. Urine containing purpuric acid and its salts.

URINE, PURULENT. Urine containing pus.

URINE, RETENTION OF. An accumulation of urine in the bladder from inability to void it; ischuria.

URINE, SUPPRESSION OF. See ischuria.

URINIF'EROUS. From ουρον, urine, and φερω, I carry. Carrying urine, as the *tubuli uriniferi*.

URINIFEROUS TUBES. A number of small ducts converging from the cortical portion of the kidney to the apices of the papillæ.

URINOM'ETER. An instrument for determining the specific gravity of the urine.

U'RINOUS. Having the character of, or resembling urine.

UROCRIS'IA. From ουρον, urine, and κρινω, I judge. A judgment formed of disease by inspecting the urine.

URODIAL'YSIS. From ουρον, urine, and διαλυσις, dissolution, loss of strength. A suspension of the function of the kidney.

UROLITH'I. Urinary calculi.

UROLITHOL'OGY. *Urolithologia;* from ουρον, urine, λιθος, a stone, and λογος, a discourse. A discourse on urinary calculi.

UROMANTI'A. From ουρον, urine, and μαντεια, divination. The pretended art of divining diseases by inspecting the urine.

URON. Urine.

URONOL'OGY. *Uronologia;* from ουρον, urine, and λογος, a discourse. A treatise on the urine.

UROSCOPIA. Uromantia.

URO'SES. Diseases of the urinary organs.

URTI'CA. The name of a genus of plants.

URTICA DIOICA. The common stinking nettle.

URTICA MORTUA. Dead nettle.

URTICA PILULIF'ERA. The pill-bearing nettle.

URTICA URENS. The lesser nettle.

URTICACEÆ. The nettle tribe of dicotyledonous plants.

URTICA'RIA. From *urtica*, a nettle. The nettle-rash; an eruption on the skin resembling that produced by the stings of a nettle. Six varieties are described by Willan, namely, 1. *Urticaria febrilis.* 2. *Urticaria evanida.* 3. *Urticaria persistans.* 4. *Urticaria conferta.* 5. *Urticaria subcutanea.* 6. *Urticaria tuberosa.*

URTICA'TION. *Urticatio;* from *urtica*, a nettle. Whipping a part of the body with nettles for the purpose of producing cutaneous excitement.

USTILA'GO. Ergot.

USTION. The act of applying the actual cautery. Also, a burn.

UTERINE. *Uterinus;* from *uterus*, the womb. Belonging, or relating, to the womb.

UTERINE ARTERY. A branch of the hypogastric or internal pudic, distributed over the uterus.

UTERO-GESTATIO. Pregnancy.

UTEROMANIA. Nymphomania.

U'TERUS. The womb; a hollow organ of the shape of a compressed pear, situated in the cavity of the pelvis between the urinary bladder and rectum, and destined to lodge the fetus from the commencement of conception till birth.

UTERUS, INVERSION OF. The uterus displaced and turned inside out, as sometimes occurs in the careless or injudicious removal of the placenta.

UTERUS, IRRITABLE. Neuralgia of the uterus.

UTRIC'ULUS. The uterus. Also, a little bag, or hollow vesicle.

UVA. An unripe grape. Also, a tumor having the appearance of a grape.

UVA PASSA MAJOR. A raisin.

UVA PASSA MINOR. The dried currant.

Uva Ursi. Arbutus uva ursi.

U'VEA. From *uva*, an unripe grape. A term applied by some anatomists to the choroid coat of the eye, and by others to the black pigment on the posterior surface of the iris.

Uvea, Commissure of the. The ciliary ligament.

U'VULA. A small, conical, fleshy process hanging from the middle of the inferior margin of the soft palate, over the root of the tongue. It is composed of mucous membrane and the azygos uvulæ muscle.

Uvula, Elongation of. See Palatine Organs, diseases of.

Uvula, Excision of. See Palatine Organs, diseases of.

Uvula, Ulceration of. See Palatine Organs, diseases of.

Uvula Scissors, Hullihen's. A pair of scissors invented by Dr. S. P. Hullihen, of Wheeling, Va., in the early part of 1843, for the removal of the uvula, which are so contrived, that at the instant it cuts the uvula, it secures the divided part and prevents it from falling into the fauces by means of a pair of supplementary blades, provided with sharp teeth, beneath the cutting blades.

Uvula Vesicæ. A slight elevation of the mucous membrane at the entrance of the urethra in the neck of the bladder.

UVULA'RIA. The ruscus hypoglossum, a plant formerly used in cases of relaxation of the uvula.

UVULI'TIS. From *uvula*, and *itis*, denoting inflammation. Inflammation of the uvula.

V.

VACCI'NA. From *vacca*, cow.—Cow-pox; kine-pox; a pustular disease of cow's teats, consisting of vesicles of a blue color, and which, when introduced into the human body by innoculation, preserves him from the contagion of small pox. For this valuable discovery the world is indebted to Dr. Jenner.

VACCINA'TION. *Vaccinatio*;—from *vacca*, a cow. Cow-pox innoculation; the insertion of vaccine matter under the cuticle to produce cow-pox.

VACCINE MATTER. The serous fluid contained in the vesicle developed on the body of one who has been vaccinated, and which, when permitted to remain undisturbed, concretes into a hard scab or crust.

VACCIN'IUM. The name of a genus of plants.

Vaccinium, Myrtil'lus. The myrtle-berry.

Vaccinium Oxycoc'cos. The cranberry plant.

Vaccinium Vitis Idæ'a. The red whortleberry.

VACHER. Dissertation on the Accidents of the Teeth, by. Paris, 1764 and 1767.

VAC'UUM. An empty space.

VAGI'NA. A sheath. In *Anatomy*, the canal which leads from the vulva or external orifice of the female pudendum to the uterus.

VAGI'NAL. *Vaginalis*. Pertaining to the vagina or a sheath.

Vaginal Artery. A branch of the hypogastric, uterine, or internal pudic artery, distributed to the vagina.

VAGINALIS TUNICA. The tunica vaginalis testis.

VAGINI'TIS, Inflammation or irritation of the vagina.

VAGI'TUS. Squalling. The cry of the new-born child.

VALENTINI. Dissertation on Looseness, Loss and Reparation of the Teeth, by. Jena, 1798.

VALERIAN. Wild valerian. Valeriana officinalis.

VALERIA'NA. The name of a genus of plants. Also, the officinal valerian.

Valeriana Celt'ica. Celtic nard.

Valeriana Dentata. Corn salad.

Valeriana Officina'lis. Wild valerian; officinal valerian.

Valeriana Phu. Garden valerian.

VALERIANACE'Æ. The valerian tribe of dicotyledonous plants.

VALETUDINA'RIAN. Sickly; one who is in delicate health.

VALETU'DINARY. Valetudinarian.

VAL'GUS. Bandy-legged; one having his legs bent outward. Also, club-foot.

VAL'LUM. The eyebrows.

VALVE. *Valvula;* from *valvæ*, folding doors. A small door. A term applied, in *Anatomy*, to membranous folds, situated at the orifice or in the course of certain cavities and canals, and which serve to prevent the regurgitation, and direct the course of contained fluids. In *Botany*, the divisions of the fruit.

Valve of Fallopius. *Valve of Bauhin.* The ileo-cœcal valve.

VALVES, SEMILUNAR The sigmoid valves.

VAL'VULA. A small valve.

Valvula Coli. The valve of the colon.

Valvula Eustachii. A semilunar membranous fold situated at the mouth of the inferior vena cava.

Valvula Mitralis. The mitral valve.

Valvula Semilunaris. The semilunar valves.

Valvula Triglochin. The tricuspid valves.

VALVULÆ CONNIVENTES.—Numerous semilunar folds of the mucous coat of the small intestines.

VANA'DIUM. A brittle metal, of a white color, found with lead and iron.

VANDERBELEN. Dissertation on Odontalgia, by. Lovan, 1782.

VANDERMASSON. On the Necessity of attending to the Gums and Teeth, by. Gotha, 1802.—The Dentist for All Classes, by. Leipsic, 1803.—How can Parents facilitate the Dentition of Children? by. Pyrna, 1807.

VANDERMONDE. Whether in the Dentition of Infants, attended with convulsions or drowsiness, there should be a repeated use of cathartics, by. Paris, 1767.

VANIL'LA. *Vanelloe.* Epidendrum vanilla.

VAPOR. An elastic fluid rendered æriform by heat, and capable of being brought back to a liquid state by cold.

Va'por Bath. A steam bath; the application of vapor to the body in a close place. Also, the place itself.

VAPORA'RIUM. A vapor bath.

VAPORIZA'TION. The evaporization of a liquid, or the artificial formation of vapor.

VA'PORS. Hypochondriasis; hysteria.

VA'REC. The askes of sea-weeds; kelp.

VARICEL'LA. Diminutive of *variola*, small-pox. *Variola lymphatica.* The chicken-pox; an eruptive disease, consisting of vesicles scattered over the body.

VARICOBLEPH'ARON. From *varix*, dilatation of a vein, and βλεφαρον, eyelid. A varicose tumor of the eyelid.

VARICOCE'LE. From *varix*, and κηλη, a tumor. *Cirsocele.* A varicose enlargement of the scrotum, or spermatic chord.

VARICOMPH'ALUS. From *varix*, and ομφαλος, the umbilicus. A varicose tumor of the umbilicus.

VARI'COSE. *Varicosus.* Belonging to, or resembling, a varix.

VARIC'ULA. A varicose swelling of the veins of the conjunctiva.

VARI'OLA. From *varius*, spotted, or from *vari*, pimples. The small-pox.

Variola Spuria. Varicella.

VAR'IOLOID. *Varioloides;* from

variola, small-pox, and ειδος, resemblance. A disease resembling small-pox; small-pox modified by previous vaccination or innoculation.

VARIX. A dilatation of a vein.

VARUS. A term applied *adjectively* to one whose legs are bent inward, and *substantively* to a small spot, speck, or pimple on the face.

VAS. A vessel.

VAS DEFERENS. An excretory duct of the testicle, situated along the posterior border of the spermatic chord.

VASA LACTEA. The chyliferous vessels.

VASA DEFERENTIA MULIEBRA. The Fallopian tubes.

VASA VASO'RUM. *Vasa nutritia*. The small vessels which supply larger ones.

VASA VORTICO'SA. The contorted vessels of the choroid coat of the eye.

VAS'CULAR. *Vascularis;* from *vas*, a vessel. Belonging, or pertaining, to vessels, as the *vascular system*.

VASCULAR SYSTEM. The aggregate of the vessels, arteries, veins, and lymphatics of the body.

VAS'CULUM ABER'RANS. A small convoluted duct, generally connected with the duct of the epididymis.

VASE. Is Hemorrhage from the Extraction of Teeth, owing to Carelessness on the part of the Operator? by. Paris, 1735.

VATER. Dissertation on Odontalgia, by. Wetteb, 1683.

VASIFORM. From *vas*, a vessel. Shaped like a bloodvessel or tube.

VAS'TUS That which is large and has a great extent. In *Anatomy*, a term applied to certain muscles.

VASTUS EXTERNUS. A large, thick muscle, situated on the outside of the thigh.

VASTUS INTERNUS. A muscle situated on the inner side of the thigh.

VAULT. A term applied, in *Anatomy*, to parts which are rounded superiorly and concave, and arched inferiorly, as the *vault of the palate*, &c.

VAUQUELIN. Report upon the Tartar of the Teeth, made to the Section of Pharmacy of the Royal Academy of Medicine, by. Paris, 1825.

VECTIS. A lever.

VEG'ETABLE. *Vegetabilis;* from *vigere*, to grow. An organized body, not endowed with sense and voluntary motion, receiving its nourishment through pores on its outer surface and vessels, usually adhering to some other body, as the earth, and generally propagating itself by seeds.

VEGETABLE IVORY. A product of a species of palm, the *phytelephas macrocarpa;* it is very hard, and resembles the finest grained ivory.

VEGETABLE KINGDOM. The aggregate of vegetables.

VEGETABLE PHYSIOLOGY. A treatise on the functions of plants.

VEGETA'TION. *Vegetatio*. Vegetables in general. Also, the process of growing, as plants, by nourishment derived from the earth, water, or air. In *Surgery*, a morbid growth resembling a fungus. In *Chemistry*, certain crystalline concretions formed by salts, after solution in water.

VE'HICLE. *Vehiculum;* from *vehere*, to carry. A term applied, in *Pharmacy*, to the menstruum in which medicines are suspended or dissolved.

VEIN. The veins are membranous canals which return the blood from the arteries to the auricles of the heart. A vein, like an artery, is composed of three coats, an external or cellulo-fibrous, a middle or fibrous, and an internal or serous. With the exception of the pulmonary, the veins contain black blood, and are divided into *superficial*, or those which return the blood from the integument and superficial structures; the *deep*, which are situated among the deeper structures, and the *sinuses*, or channels excavated in the structure of an organ, and lined by the internal coat of the veins, as the sinuses of the dura mater, &c.

Most of the veins of the body are enumerated in the following table, ar-

ranged from *Wilson's Anatomy*, according to the primary divisions of the body.

Table of the Veins.

The veins of the exterior of the head are,

1. The *facial.*
2. The *internal maxillary.*
3. The *temporal.*
4. The *temporo-maxillary.*
5. The *posterior auricular.*
6. The *occipital.*

The veins of the cerebrum and cerebellum are,

1. The *superficial cerebral.*
2. The *superior cerebral.*
3. The *deep* or *ventricular.*
4. The *venæ Galeni*, and
5. The *cerebellar veins.*

The sinuses of the dura mater, situated at the upper and back of the skull are,

1. The *superior longitudinal.*
2. The *inferior longitudinal.*
3. The *straight.*
4. The *occipital*, and
5. The *lateral.*

The sinuses of the base of the cranium are,

1. The *cavernous.*
2. The *inferior petrosal.*
3. The *circular.*
4. The *superior petrosal*, and
5. The *transverse.*

The veins of the neck are,

1. The *external jugular.*
2. The *anterior jugular.*
3. The *internal jugular*, and,
4. The *vertebral.*

The veins of the upper extremity are divided into deep and superficial. The former accompany the branches and trunks of the arteries, and constitute their *venæ comites.* At the bend of the elbow they terminate in the *brachial veins*, which open into the *axillary.* The axillary veins terminate in the *subclavian*, which last unites with the internal jugular, to form the *vena innominata*, and this, again, unites with its fellow to form the *superior* or *descending vena cava*, which terminates in the upper part of the right auricle of the heart.

The superficial veins of the forearm are,

1. The *anterior ulnar.*
2. The *posterior ulnar.*
3. The *basilic.*
4. The *radial.*
5. The *cephalic.*
6. The *median.*
7. The *median basilic*, and,
8. The *median cephalic.*

The veins of the lower extremity are the deep and superficial. The former accompany the arteries in pairs, forming the *venæ comites* of the anterior and posterior tibial and peroneal arteries. In the popliteal region, they unite and form one large vein, the *popliteal*, which, in its progress upwards, becomes first, the *femoral*, and then the *external iliac vein.* The popliteal vein receives several muscular and articular branches, and the external saphenous vein. The femoral receives several muscular, the profunda and the internal saphenous vein.

The *superficial veins* are the *external*, or *short saphenous*, and the *internal*, called the *long saphenous* vein. The *external* receives the blood from the foot and outer side of the leg, and joins the popliteal vein. The *internal*, ascends on the inner side of the ankle, leg and thigh, receiving in its course the cutaneous veins, and enters the femoral with the profunda about an inch and a half below Poupart's ligament.

The veins of the trunk are,

1. The *superior vena cava*, as before noticed.
2. The *inferior vena cava*, with its formative branches.
3. The *azygos veins.*
4. The *vertebral and spinal.*
5. The *cardiac.*
6. The *portal*, and,
7. The *pulmonary.*

The formative branches of the inferior or ascending vena cava are,

1. The *external iliac.*
2. The *internal iliac,* which unites with the external to form the common iliac.
3. The *vesical* and *prostatic plexus.*
4. The *uterine plexus.*

The *right* and *left common iliac veins* unite between the fourth and fifth lumbar vertebræ, to form the ascending cava, which receives in its course,

1. The *lumbar veins.*
2. The *right spermatic.*
3. The *renal.*
4. The *supra-renal.*
5. The *phrenic,* and
6. The *hepatic.*

The inferior vena cava terminates at the inferior and posterior part of the right auric of the heart.

Tne azygos veins form a system of communication between the superior and inferior vena cava, and consist of,

1. The *vena azygos major.*
2. The *vena azygos minor,* and
3. The *superior intercostal vein.*

The vertebral and spinal veins are arranged into three groups,

1. The *dorsi-spinal.*
2. The *maningo-rachidian,* and,
3. The *medulli-spinal.*

The cardiac veins which return the blood from the substance of the heart are,

1. The *great cardiac,* or *coronary vein.*
2. The *posterior cardiac,* or *coronary vein,* and,
3. The *anterior cardiac.*

The posterior and anterior cardiac veins enter the great cardiac which terminates in the right auricle of the heart.

The portal system consists of four large veins, which convey the blood from the chylopoietic viscera. They are,

1. The *inferior mesenteric.*
2. The *superior mesenteric.*
3. The *splenic,* and
4. The *gastric veins.*

These veins concur in the formation of the *vena portæ,* which goes to the liver.

The pulmonary veins, four in number, unite into two trunks, which open into the left auricle of the heart.

VEINS, CORONARY. The cardiac veins.

Veins, Intra-Lobular. The hepatic veins.

VE'LUM. A veil.

Velum Pendulum Palati. The soft palate. A pendulous fold of mucous membrane, situated at the posterior part of the mouth over the root of the tongue, and continuous with the hard palate. It is composed of mucous membrane and muscles; to the centre of which the uvula is suspended. On each side of this, outwardly, are the arches or pillars of the palate. The anterior passes downwards to the side of the base of the tongue, and the posterior extends downwards and backwards into the pharynx. There is a triangular space between these pillars below, in which the tonsil is situated.

VENA. A vein.

Vena Azygos. The azygos vein.

Vena Portæ. A large vein which receives the blood from the viscera of the abdomen and conveys it into the substance of the liver.

VENÆ LACTEÆ. The lacteals.

VENESEC'TION. *Venæsectio;* from *vena,* a vein, and *sectio,* a cutting. Blood-letting; phlebotomy; the opening of a vein.

VENE'NUM. A poison; venom.

VENE'REAL. *Venereus;* from *Venus,* the goddess of pleasure. Pertaining to, or connected with, sexual intercourse.

Venereal Disease. Syphilis.

VEN'ERY. Sexual intercourse; coition.

VEN'OM. A poison.

VEN'OMOUS. Poisonous. A term applied to animals which have a secretion of poisonous matter, as the rattlesnake, viper, &c.

Unable to display this page

Unable to display this page

VESICULÆ NABOTHI. *Nabothi glandulæ.* The mucous follicles in the interior of the neck of the uterus.

VESICULÆ PULMONALES. The air cells of the lungs.

VESICULÆ SEMINALES. Two lobated receptacles, each formed by the convolutions of a single tube, and situated at the under surface of the base of the bladder. Their excretory ducts, called the *ejaculatory ducts*, open into the urethra. Their use is to receive the semen from the vasa deferentia.

VESIC'ULAR. *Vesicularis.* Having the appearance of, or pertaining to, vesicles, small cells, or bladders.

VESICULAR FEVER. Pemphigus.

VES'PA. The name of a genus of insects.

VESPA CRABRO. The hornet.

VESPA VULGARIS. The wasp.

VES'SEL. *Vas.* A term applied, in *Anatomy*, to an elastic, tubular canal, and distinguished according to its general arrangement, into *artery*, *vein*, *lymphatic* and *absorbent*.

VESTI. Dissertation on Odontalgia, by. Erf., 1697.

VES'TIBULE. *Vestibulum.* A term applied, in *Anatomy*, to the cavity of the internal ear. Also, a triangular space between the nymphæ.

VESTI'TUS. Clothing.

VETA. An acute pain in the head, attended with prostration; a disease common in the elevated districts of South America.

VET'ERINARY. *Veterinarius.*—Pertaining to beasts of burden; hence *veterinary surgery*, *veterinary medicine*, &c.

VIA. A way or passage.

VIABILITY. Viable.

VI'ABLE. A term applied to a newborn child whose organs are so formed and developed as to admit of its continued existence.

VIÆ LACHRYMALES. The lachrymal passages.

VIAL. Phial.

VIBI'CES. The large purple spots which appear under the skin in certain malignant fevers.

VI'BRATORY. From *vibrare*, to quiver. Vibrating; having a quivering, or quick oscillating motion; sometimes applied to neuralgia, in which the pain seems to vibrate among the nerves.

VIBRIS'SÆ. The hairs which grow on the inside of the nostrils.

VIC'IA. The name of a genus of plants.

VICIA FABA. The common garden bean.

VICTORIALIS LONGA. Allium victoriale.

VIDIAN CANAL. The pterygoid canal.

VIDIAN NERVE. The posterior branch of the *spheno-palatine ganglion*, which proceeds backwards through the vidian or pterygoid canal to the foramen lacerum in the basis cranii, where it divides into two branches.

VIGER. Tract on Catarrh, Rheumatism and Defects of the Teeth, by. Geneva, 1620 and 1624.

VIGILANCE. Insomnia; continued wakefulness.

VILLI. Small processes like the pile of velvet.

VILLOUS. *Villosus;* from *villus*, a hair. Nappy; shaggy; rough; applied, in *Anatomy*, to membranes covered with soft papillæ or villi; or to a velvet-like arrangement of vessels or fibres.

VILLOUS MEMBRANES. The mucous membranes.

VIL'LUS. The papillæ on the surface of mucous membranes. Also, a species of hairy pubescence.

VIN'CA. The name of a genus of plants.

VINCA MINOR. The lesser periwinkle.

VINE. Vitis vinifera.

VINE, GRAPE. Vitis vinifera.

VINE, WHITE. White bryony.

VINEGAR. *Acetum.* Impure acetic acid, prepared by fermentation.

VINEGAR, AROMATIC. Acetum aromaticum.

VINEGAR OF COLCHICUM. Acetum colchici.

VINEGAR, DISTILLED. Acetum distillatum.

VINEGAR OF OPIUM. Acetum opii. Black drop.

VINEGAR OF SPANISH FLIES. Acetum cantharidis.

VINEGAR OF SQUILLS. Acetum scillæ.

VINUM. Wine.

VINUM ALBUM HISPANUM. Sherry.

VINUM ALOES. Wine of aloes.

VINUM ANTIMONII. Antimonial wine.

VINUM COLCHICI RADICIS. Wine of colchicum root.

VINUM COLCHICI SEMINIS. Wine of colchicum seed.

VINUM ERGOTÆ. Wine of ergot

VINUM GENTIANÆ. Wine of gentian.

VINUM IPECACUANHÆ. Wine of ipecacuanha.

VINUM MEDICA'TA. Medicated wines. Wines holding in solution one or more medicinal substances.

VINUM OPII. Wine of opium.

VINUM RHEI. Wine of rhubarb.

VINUM TABACI. Wine of tobacco.

VINUM VERATRI ALBI. Wine of white hellebore.

VI'OLA. The name of a genus of plants.

VIOLA CANI'NA. The dog violet.

VIOLA IPECACUANHA. A plant which yields a species of ipecacuanha root.

VIOLA LUTEA. Cheiranthus cheiri.

VIOLA ODORA'TA. Sweet violet.

VIOLA PALUSTRIS. Pinguicula palustris.

VIOLA TRICOLOR. Heart's-ease.

VIOLA'CEÆ. The violet tribe of dicotyledonous plants.

VIOLA'CEOUS. A deep bluish purple or violet color.

VIOLA'RIA. Viola.

VIPER. *Vipera.* The coluber berus.

VIPER, EGYPTIAN. Aspis.

VIPER GRASS. Scorzonera.

VIPERARIA. Virginian snakeroot.

VIRGA AUREA. The golden rod.

VIRGIN'S BOWER. Clematis vitalba.

VIRGULA. The penis.

VIRILITY. Adult age; manhood.

VIR'ULENT. *Virulentus.* Poisonous; pertaining to a virus.

VIRUS. A poison. In *Pathology*, the product of a disease, and capable of producing that disease, by innoculation or absorption, in a healthy individual.

VIS. Force. Power. A term applied, in *Physiology*, to the vital force and its effects.

VIS A TERGO. Any moving power acting from behind.

VIS ELASTICA. Elasticity.

VIS INSI'TA. That power by which a muscle, when irritated, contracts, independently of the will of the animal.

VIS MEDICA'TRIX NATU'RÆ. *Vis conservatrix.* The healing power in an animated body.

VIS MOR'TUA. That power in a muscle by which it contracts after the death of the animal.

VIS PLASTICA. Plastic force. Formative energy.

VIS VITÆ. Vital force or power.

VIS'CERA. Plural of *viscus.* The contents of the abdomen, thorax and cranium.

VIS'CERAL. Pertaining to the viscera.

VISCIDITY. Viscosity; sticky; clammy.

VISCOSITY. Viscidity.

VIS'CUM. The name of a genus of parasitical plants.

VISCUM ALBUM. The mistletoe.

VIS'CUS. An entrail. One of the contents of the abdomen, thorax or cranium.

VISE. An instrument for griping and holding hard bodies, provided with two jaws, which are closed by means of a screw. The small bench-vise is used

in the mechanical laboratory of the dentist.

VISION. *Visus;* from *videre, visum,* to see. The function by which the size, color, distance, &c., of bodies are perceived; sight.

Vision, Double. Diplopia.

VIS'UAL. *Visualis.* Concerning, or belonging to, vision.

Visual Angle. The angle under which an object is seen; the angle formed in the eye by the crossing of two rays, coming from the opposite points of an object.

VISUS. Vision.

Visus Acrior. Nyctalopia.

Visus Coloratus. Colored vision.

Visus Debilitas. Weak-sighted.

Visus Dimidiatus. Hemiopia.

Visus Diurnus. Hemeralopia.

Visus Duplicatus. Diplopia.

Visus Juvenum. Near-sightedness.

Visus Nocturnus. Nyctalopia.

Visus Senilis. Long-sightedness.

VITA. From *vivere,* to live. Life.

VITAL FORCE. The formative force.

Vital Principle. That principle, which, when applied to organized bodies, controls their manifestations and properties.

VITALBA. The traveler's joy.

VITAL'ITY. *Vitalitas;* from *vita,* life. The vital principle.

VITEL'LINE. *Vitellinus;* from *vitellus,* the yolk of an egg. Pertaining to the yolk of an egg. Also, of a yellow or orange color.

Vitelline Pedicle. The pedicle which connects the umbilical vesicle to the embryo.

VITELLUS. The yolk of an egg.

VITEX. The name of a genus of plants.

Vitex Agnus Castus. The chaste tree.

VITILI'GO. From *vitulus,* a calf. Veal skin. A term applied by Celsus to three varieties of lepra, and by Dr. Willan to a tubercular disease, characterized by smooth, white, shining tubercles on the skin, interspersed with shining papulæ.

VITIS. The name of a genus of plants. Also, the grape.

Vitis Alba. White bryonia.

Vitis Corinthiaca. The small raisins called currants.

Vitis Idæa. The cranberry plant.

Vitis Marina. Sea lentil.

Vitis Vinif'era. The grape vine.

VIT'REOUS. *Vitreus;* from *vitrum,* glass. Glassy; transparent; pertaining to, resembling, or containing glass.

Vitreous Humor of the eye. The transparent body which fills the globe of the eye back of the crystalline lens.

VITRIFICA'TION. The act of converting any substance, by heat, into a substance resembling glass, as enamel paste on mineral teeth.

VITRIOL. Sulphate of iron.

Vitriol, Blue. Sulphate of copper.

Vitriol, Green. Sulphate of iron.

Vitriol, Oil of. Sulphuric acid.

Vitriol, White. Sulphate of zinc.

VITRIOLUM. Sulphate of iron.

Vitriolum Album. Sulphate of zinc.

Vitriolum Cœruleum. Sulphate of copper.

Vitriolum Viride. Sulphate of iron.

VITRUM. Glass.

Vitrum Antimonii. Glass of antimony.

VITTATUS. Spotted.

VIVER'RA. The name of a genus of digitigradous quadrupeds.

Viverra Civetta. The ash-colored weazel.

Viverra Zibetha. The civet cat.

VIVIP'AROUS. From *vivus,* alive, and *pario,* I bring forth. A term applied to animals which bring forth their young alive.

VIVISECTION. *Vivisectio;* from *vivus,* alive, and *secare, sectum,* to cut. The dissection or opening of living animals.

VOCAL CHORDS. Two ligaments; the *inferior thyro-arytenoid liga-*

ments, attached in front to the receding angle of the thyroid, and behind to the lower part of the anterior angle of arytenoid cartilage.

VOICE. *Vox.* The sound produced by the vibration of the air, while traversing the larynx, either in escaping from, or entering the trachea. The larynx is the essential organ concerned in its production.

VOICE, ARTICULATED. Speech, or voice modified by the action of the tongue, lips, velum, teeth and other parts of the mouth.

VOL'ATILE. *Volatilis;* from *volere*, to fly. Substances which have a tendency to evaporate at ordinary temperatures, as ether, ammonia, &c.

VOLATILE ALKALI. Ammonia.

VOLATILE SALT. Subcarbonate of ammonia.

VOLATILIZA'TION. The conversion of volatilizable substances into gas or vapor by heat.

VOLGER'S ODONTALGIC REMEDY.—℞.—Pulv. mastic, ʒ ij and gr. vij; pulv. sandarac, ʒ ij and gr. vij; pulv. dragon's blood, ϑ iss; pulv. opium, ʒ i; volatile oil of rosemary, gtt. viij; spirit of scurvy grass, a sufficient quantity to form a soft mass, in which state, a portion of it of the size of a pea is applied to the gum of the aching tooth.

VOLTAIC PILE. A number of pairs of zinc and copper, or zinc and silver disks, separated by pieces of moistened woollen cloth.

VOLTAISM. Galvanism.

VOL'UBLE. *Volubilis.* Rolling; twining; ready motion of the tongue.

VOL'UME Dimensions; space occupied.

VOL'UNTARY. Pertaining to the will. A term applied, in *Anatomy*, to muscles, which are put in action in obedience to the will, and to motions resulting therefrom.

VOL'VULUS. Ileac passion.

VO'MER. A plough-share. The bone which separates the nostrils from each other, is so called from its shape.

VOM'ICA. From *vomere*, to vomit. A term applied, in *Pathology*, to an abscess in the substance of the lungs, and generally formed by the suppuration of tubercles.

VOM'ITING *Vomitio.* A forcible ejection of solids and liquids from the stomach, through the œsophagus and mouth.

VOMITING OF BLOOD. Hæmatemesis.

VOMITIO. Vomiting.

VOMITORIUM. An emetic.

VOMITURI'TION. Ineffectual efforts to vomit; retching.

VOMITUS. Vomiting.

VORACIOUS APPETITE. Bulimia.

VOX. The voice.

VUL'NERARY. *Vulnerarius;* from *vulnus*, a wound. A term formerly applied to substances which were supposed to assist the healing of wounds. It is still much used by French writers.

VULNERARY WATER. See Water of D'Arquebusade.

VUL'NUS. A wound.

VULSELLA. The name of an instrument employed by the ancients for the extraction of teeth.

VULTUS. The face; the countenance.

VULVA. The uterus. Also, the external parts of generation in the female. The term is applied, too, to the foramen commune anterius of the brain.

VULVAR. Relating to the vulva.

VULVA'RIA. The stinking orach.

VULVO-UTERINE CANAL. The vagina.

W.

WAGNER. Dissertation on Difficult Dentition, by. Jena, 1798.

WAISTCOAT, STRAIT. A strong coat, made of wash-leather, and employed for restraining the motions of maniacs, and those laboring under violent delirium.

WAITE, G. Surgeon Dentists' Manual, by. London, 1830. This is an excellent work, and is principally devoted to a description of the anatomical structures of the mouth.—Mr. Waite is also author of one of the best works upon the gums that has ever been published, which was issued from the press about 1831.

WAKEFULNESS. Insomnia; sleeplessness.

WAKE-ROBIN. Arum maculatum.

WALKEY. On the Diseases of the Teeth—their Origin Explained, by. London, 1793.

WALKING. The act by which a person moves from place to place by means of a succession of steps.

WALL-FLOWER. Cheiranthus cheiri.

WALL-PELLITORY. Parietaria officinalis.

WALL-PEPPER. Sedum acre.

WALL-RUE. Asplenium murale.

WALLWORT. Sambucus ebulus.

WALNUT-TREE. Juglans regia.

WARDROPER, W. Author of a popular Treatise on the Structure, Diseases and Treatment of the Teeth; published, London, 1838.

WARENIUS. Dissertation on Catarrh, and Tooth-Ache produced by it, by. Geneva, 1727.

WART. Verruca.

WASH. A lotion.

WASHERWOMAN'S SCALL.—Psoriasis diffusa.

WASHING. A term used to designate the process employed for separating particles of gold and other valuable metallic substances from the ashes and cinders of the work-shop of the dentist and jeweler.

WASP. Vespa; a genus of insects like the bee, armed with a sting.

WASTING. Atrophy; diminishing by destruction.

Wasting of the Alveolar Processes. The gradual destruction of the alveoli which attends inflammation, turgescence and ulceration of the gums, from whatever cause produced. It is supposed, by some writers, to occur in old persons, spontaneously, but the author is of opinion that it is always the result of the chemical action of a morbid secretion excited by disease in the gums or alveolo-dental membrane. See Gums, diseases of.

Wasting of the Teeth. See Abrasion of the Teeth, spontaneous.

WATCHFULNESS. Wakefulness; sleeplessness.

WATER. *Aqua; hydor;* ὑδωρ. A transparent fluid without color, smell or taste, consisting of eight parts by weight of oxygen, and one of hydrogen.

WATER-BRASH. Pyrosis.

Water-Cress. Sisymbrium nasturtium.

Water-Cure. Hydropathy.

Water of D'Arquebusade, Le Maire's. ℞.—Fresh leaves of sage, angelica, absinthium, sariette, fennel, mentastrum, hyssop, balm, basilic, rue, thyme, marjoram, rosemary, origanum, calamus, serpolet, lavender, ā ā, ʒ iv; rectified spirit of wine, ℔ viij. These plants are cut in coarse pieces, then infused for ten or twelve hours in the spirit of wine, followed by distillation in a water bath, to draw off all the spiritous liquor, which is afterwards closely bottled for use.

Water, Distilled. Aqua distillata.

Water-Dock. Rumex hydrolapathum.

Water-Flag, Yellow. Iris pseudacorus.

Water-Germander. Teucrium scordium.

Water-Hemp. Eupatorium cannabinum.

Water in the Head. Hydrocephalus.

Water in the Chest. Hydrothorax.

Water-Lily, White. Nymphæa alba.

Water-Lily, Yellow. Nymphæa lutea.

Water, Mineral. Water holding in solution different saline and gaseous substances, or possessed of medicinal properties.

Water-Parsnip. Sium nodiflorum.

Water-Pepper; Polygonum hydropiper.

Water-Plantain. Alisma plantago.

Water-Pox. Varicella.

Water-Zizania. Water-rice; zizania aquatica.

WAVED. Undulated.

WAX. Cera. See Wax, yellow, and Wax, white.

Wax-Holder. A term applied, in *Dental Surgery*, to an instrument for holding softened wax while taking an impression of the whole or any portion of the alveolar border of either jaw, or the vault of the palate. It consists of a tin, copper or silver case, large enough to receive either alveolar ridge, with a handle in front. The common wax holder is made by soldering a flaring rim, about half an inch in width, to the outer and inner edge of a plate of tin or other metal, of a semi-circular shape, like the alveolar border, and about five-eighths of an inch in width, and to the outside, in the centre of this semi-circular encasement, a handle is soldered. But, as the alveolar arch in different individuals varies in size, it is necessary that the dentist should be provided with several wax-holders, and one of a different shape is required for the lower jaw than that used for the upper.

Without an instrument of this sort it is impossible to take an accurate impression of either jaw, and with the one usually employed, it is often attended with great difficulty. In fact, there are some cases in which it cannot be done, and for the purpose of securing a correct impression, Dr. Elliot recommends that the wax-holder be formed by swadging between a model and counter-model, obtained from the impression first taken, a plate of copper in the same way that a metallic base is fitted. The author has had occasion to adopt this method of procedure, and always with the most satisfactory result.

Wax-Holder, Colburn's. An improvement on the common wax-holder, by G. F. J. Colburn, dentist, of Morristown, N. J., consisting of two rims instead of one on the outer margin of the plate. The outer rim is intended to protect the impression against injury from the corners of the mouth in removing it.

Wax-Holders, Cleaveland's. Five wax-holders, three for the upper, and two for the lower jaw, invented by Dr. J. A. Cleaveland, of Charleston, S. C. The only difference in those for the upper jaw is in size. The upper ones are so constructed as to form a complete covering or encasement for the superior alveolar ridge and roof of the mouth, with a handle about two inches in length. Those for the lower have a joint in the centre so that the arch may be widened or narrowed at pleasure to fit the jaw. One is intended to take an impression of the lower jaw with five or six of the front teeth, the other, for taking an impression after the loss of all the teeth. They may be made of silver or copper plate, but when the latter metal is used it should be plated with silver, or galvanized. These wax-holders are better adapted to the purpose of taking impressions of the jaws than any which the author has seen.

WAX IMPRESSIONS. See Impression of the Mouth in Wax.

WAX, MYRTLE. A wax of a pale grayish-green color, obtained from the fruit of *myrica cerifera.*

WAX, WHITE. Cera alba. Bleached yellow wax.

WAX, YELLOW. Cera flava. A product of the common bee, the *apis mellifica.*

WAXING KERNELS. In popular language an enlargement of the lymphatic glands in the groins.

WEAKSIGHTEDNESS. Asthenopia.

WEAN'ING. The separation of the infant permanently from the breast.

WEARING OF THE TEETH.—See Abrasion of the Teeth, mechanical.

WEB. *Tela.* A term applied, in *Anatomy,* to certain structures from their appearance, as cellular tissue, &c.

WEB-EYE. Caligo.

WEB-MUCOUS. The cellular membrane.

WEDIL. Dissertation on First Dentition, by. Geneva, 1668.

WEDGE-SHAPED. Cuneiform.

WEIGHTS AND MEASURES.—The division of weights and measures adopted by apothecaries, is different from the standards.

1. *Apothecaries' Weight.*

1 pound, ℔, contains 12 ounces.
1 ounce, ℥, " 8 drachms.
1 drachm, ʒ, " 3 scruples.
1 scruple, ℈, " 20 grains.
1 grain, gr.

2. *Troy Weight.*

1 pound, ℔, contains 12 ounces.
1 ounce, oz., " 20 pennyweights.
1 pennyweight, dwt. 24 grains.
1 grain, gr.

	℔.	*oz.*	*dwt.*	*grs.*
Or,	1 =	12 =	240 =	5760

3. *Avoirdupois Weight.*

1 pound, ℔, contains 16 ounces.
1 ounce, oz., " 16 drachms.
1 drachm, dr.

	℔	*oz.*	*dr.*	*grs.*	*grammes.*
Or,	1 =	16 =	256 =	7000	= 453.25
	1 =	16 =	437.5		= 28.328
	1 =	27.34375 =			1.7705

4. *Apothecaries' or Wine Measure.*

1 gallon, C, contains 8 pints.
1 pint, O, " 16 ounces.
1 ounce, f. ℥, " 8 fluid drachms.
1 fluid drachm, f. ʒ, 60 minims.
1 minim, ♏. equals 1 drop of water.

	C.	O.	f. ℥.	f. ʒ.	Cubic in.
Or,	1 =	8 =	128 =	1024 =	231
	1 =	16 =	128 =		28.875
	1 =	8 =			1.8047
	1 =				0.2256

5. *Imperial Measure, adopted by the London and Edinburgh Pharmacopœias.*

C	O	f. ℥	f. ʒ
1 =	8 =	160 =	1280
1 =	20 =	160	
1 =	8		

FRENCH WEIGHTS AND MEASURES.

1. *Measures of Capacity.*

		English cubic inches.		Wine measure.
Millilitre,	=	.061028	=	16.2318 minims.
Centilitre,	=	.610280	=	2.7053 fluid drachms.
Decilitre,	=	6.102800	=	3.3816 fluid ounces.
Litre,	=	61.028000	=	2.1135 pints.
Decalitre,	=	610.280000	=	2.6419 gallons.
Hectolitre,	=	6102.800000		
Kilolitre,	=	61028.000000		
Myrialitre,	=	610280.000000		

2. *Measure of Length.*

				English Measures.				
				Mil.	Fur.	Yds.	Feet.	Inches.
Millimetre,	=	.03937						
Centimetre,	=	.39371						
Decimetre,	=	3.93710						
Metre,	=	39.37100	=	0	0	1	0	3.371
Decametre,	=	393.71000	=	0	0	10	2	9.7
Hecatometre,	=	3937.10000	=	0	0	109	1	1
Kilometre,	=	39371.00000	=	0	4	213	1	10.2
Myriametre,	=	393710.00000	=	6	1	156	0	6

3. *Weights.*

		English grains.		Troy.				Avoirdupois.			
				Lbs.	oz.	dwt.	gr.		Lbs.	oz.	dr.
Milligramme,	=	.0154									
Centigramme,	=	.1544									
Decigramme,	=	1.5444									
Gramme,	=	15.4440									
Decagramme,	=	154.4402	=	0	0	6	10.3	=	0	0	5.65
Hectogramme,	=	1544.4023	=	0	3	4	7.4	=	0	3	8.5
Kilogramme,	=	15444.0234	=	2	8	3	2	=	2	3	5
Myriagramme,	=	154440.2344	=	26	9	10	20	=	22	1	2

WELD. The dyers' weed.

WELDING. The act or process of uniting two pieces of metal at a high heat. It is done by pressure or hammering. Iron is almost the only metal capable of being thus united.

Welding Heat. A white heat.

WELLS, HORACE. Horace Wells was born at Hartford, New Hampshire, January 21st, 1815, but his father soon after moved to Westminster, Vermont, where the early life of Horace was spent until he left for school. His father afforded him the means of the best academical education within reach, which opportunities were faithfully improved. To a quick perception, he united a patient inquiring habit of thought—qualities, which, in his subsequent life, were more fully developed.

He commenced the study of dental surgery, in Boston, in 1834, where, after having completed his studentship, he opened an office for practice, but not meeting with as much encouragement as he anticipated, he moved in 1836, to Hartford, Connecticut. Being possessed of a gentlemanly and winning deportment, much mechanical ingenuity, and ambitious to excel in his profession, he soon obtained a large and rapidly increasing practice. In 1838, he published a well written popular treatise on the teeth. The style of many of his instruments were originated by himself.

As a practitioner, Mr. Wells enjoyed a high reputation, but his unremitting application to the duties of his profession, at length impaired his health, compelling him to frequent absences on this account.

The discovery of the means for the prevention of pain in surgical operations engaged his attention as early as 1844, and for this purpose, he employed, in November of the same year, the nitrous oxyd gas. It is also claimed that he discovered the application of "ether and other vapors" as a means of accomplishing the same end.* In De-

* It is proper to state here that the merit of the discovery of the practicability of producing insensibility by the inhalation of the vapor of ether has recently been awarded by the trustees of the Massachusetts General Hospital, and also by a committee of the United States congress to Dr. Morton of Boston.

cember, 1844, he went to Boston for the purpose of making known his discovery, and while there he addressed the medical class of Dr. Warren on the subject, and administered the nitrous oxyd gas to a person who wished to have a tooth extracted, but not with entire success.

In the winter of 1846, he visited London and Paris, where he was kindly received, and returned in the spring of 1847. The following summer he received a vote of thanks from the General Assembly of Connecticut for his discovery. In January, 1848, he opened an office for the practice of his profession in New York, but deeply interested in the application of gas for the prevention of pain, he attended the hospital in that city, and administered it, in different forms, with much success, during a number of severe surgical operations. At the same time he commenced a series of experiments upon his own person, of inhaling the vapor of chloroform, then recently discovered, and with the effects of which he seems not to have been fully acquainted. These, which continued for some days, together with the excitement incident to the question, operating on his highly excited nervous system, destroyed his reason, and ultimately led to the destruction of his life.

WEN. A circumscribed, indolent tumor, without inflammation or change of color of the skin. It may occur on almost any part of the body, and usually consists of sebaceous matter.

WESTCOTT, AMOS. Author of a Dissertation on Dental Caries, published in the fourth volume of the American Journal of Dental Science. In this paper Dr. W. proves by a series of very interesting experiments that caries of the teeth is produced by external chemical agents. Among his other contributions to the literature of dental surgery, are, 1. A Report on the Use of Amalgam, for filling teeth, showing that this article cannot be used either beneficially or even with impunity. 2. The Claims of Medical Science upon the Practitioner of Dental Surgery. 3. Protrusion of the Lower Jaw. 4. Dentistry and Physic. 5. Duties and Privileges of the Members of the American Society of Dental Surgeons. 6. Observations on the Use of Arsenic as a remedy for Tooth-ache, or for destroying the Lining Membrane of a Tooth. 7. Introductory Lecture, delivered before the Class of the Baltimore College of Dental Surgery, Baltimore, 1846-7. Valedictory Address, delivered before the graduating class of the same institution. Baltimore, 1847. Dr. Westcott is also one of the editors of the American Journal of Dental Science, beginning with volume fifth, and to the pages of which he has contributed very liberally.

WEYLAND. Dissertation on Maxillary Fetor, complicated with Fistulous Ulcer, near the inner angle of the eye, by. Argent, 1771.

WHEAL. An elevation of the skin, seen in some forms of nettle-rash, like that produced by the stroke of a whip.

WHEAT. Triticum.

Wheat, Buck. Polygonum fagopyrum.

Wheat, Indian. Zea mays.

WHEEZING. Noisy respiration occasioned by obstruction of the air passages.

WHELK. A wrinkle; a protuberance; a pustule.

WHELK'Y. Protuberant; rounded.

WHEY. The serum of milk, separated from the coagulable part.

Whey, Rennet. Serum lactis.

WHIS'KY. A spiritous liquor obtained from corn, rye, oats, potatoes, &c. by distillation.

WHITE ARSENIC. Arsenious acid.

White Gum. Strophulus.

White Leg. Phlegmasia dolens.

White, Spanish. Subnitrate of bismuth.

White Swelling. Hydarthrus.

White Weed. Chrysanthemum leucanthemum.

White Wood. Liriodendron tulipiferum.

WHITE, J. D. Author of an Address on the Organization of the Teeth, and the Destruction of the Dental Pulp; delivered before the Pennsylvania Association of Dental Surgeons, and published in the Dental Intelligencer, volume second. Dr. White is also author of a Paper on Plugging Teeth, published in the Dental News Letter.

WHITE, RICHARD. Advice on the Management of the Teeth, by. London, 1844.

WHITES. Leucorrhœa.

WHITNEY, B. T. Author of a Paper on Capping the Nerve of a Tooth, published in the Dental Register of the West.

WHITING. Gadus merlangus.

WHITLOW. Paronychia.

WHOOPING-COUGH. Pertussis.

WHORTLEBERRY, BEARS'.—Arbutus uva ursi.

Whortleberry, Red. Vaccinium. Oxycoccus.

WIDOW-WAIL. Daphne mezereum.

WILD. A term applied to an expression of countenance indicative of strong mental emotion, as a *wild look*.

Wild Carrot. Daucus sylvestris.

Wild Cherry. Prunus virginiana.

Wild Cucumber. Momordica elaterium.

WILDFIRE RASH. Strophulus volaticus.

WILLOW. Salix.

Willow Herb. Lythrum salicaria.

Willow Herb, Rosebay. Epilobium angustifolium.

Willow-Leaved Oak. Quercus phellos.

Willow, Rose. Cornus sericea.

Willow, Sweet. Myrica gale.

WINDY. Flatulent.

WINE. *Vinum*. The fermented juice of the grape. The term is also applied by chemists to all liquors which have become spiritous by fermentation.

Wine, Antimonial. Vinum antimonii.

Wine, Madeira. The strongest of the white wines. It has a slightly acid taste, and when good and of a proper age, a rich, nutty, aromatic flavor.

Wine Measure. See Weights and Measures.

Wine, Port. A wine of a deep-purple color, and when new, is astringent, strong and slightly sweet, but it loses, in a considerable degree, these properties, by age, and acquires more flavor.

Wine, Sherry. A deep-amber colored wine, of a pleasant aromatic flavor and fragrancy, without acidity.

Wine, Teneriffe. A white wine, of a slightly acid taste, and when good, of a pleasant aromatic flavor.

Wine Vinegar. A vinegar about one-sixth stronger than pure malt vinegar. There are two kinds; the *white wine vinegar*, and the *red wine vinegar*.

WING. Ala.

WINTER BERRY. Black alder.

Winter Cherry. Physalis alkekengi.

Winter Green. Chimaphilla umbellata. The gaultheria is also known in many parts of the country by this name.

WINTERA AROMATICA. Winter's bark.

WINTER'S BARK. Wintera aromatica.

WITCH-HAZEL. Hamamelis virginica.

WOAD. Isatis tinctoria.

WOLFSBANE. Aconitum napellus.

WOMB. Uterus.

Womb, Falling of the. Prolapsus uteri.

WOOD. Lignum.

Wood, Betony. Betonica officinalis.

Wood-Cock. Scolopax rusticola.

Wood-Louse. Oniscus asellus.

Wood-Naphtha. Pyroacetic spirit.

Wood-Sorrel. Oxalis acetosella.

Wood Spirit. Pyroxylic spirit.

WOODY NIGHTSHADE. Bittersweet.

WOOFFENDALE, ROBERT.—surgeon dentist, was born in Sheffield, Yorkshire, England, 1742, where he lived until he was twenty years of age, when he went to London and served an apprenticeship with Messrs White and Gipps, druggist. While here he became acquainted with Mr. Berdmore, dentist to king George the Third, and after completing his apprenticeship with Messrs. White and Gipps, he placed himself under his instruction, with whom he remained until he was deemed qualified to commence practice as a dentist, when, after disposing of some property left him by his father, he came to New York, where he arrived, October 30th, 1766. So far as the author has been able to learn, he was the first regular dentist in the United States. He practiced his profession in this country until March, 1768, when he returned to England, but while here, he constructed an entire set of artificial teeth for William Walton, Esq., of New York.

On his return to England, Mr. Wooffendale commenced practice in Sheffield, his native place, but in a short time moved to Liverpool where he continued to exercise the duties of his profession for fourteen years. But about this time Mr. Berdmore having died, he went to London where he soon succeeded in obtaining a large practice. But a short time before, he wrote a small treatise on the teeth, which was published in 1783. This work is entitled Practical Observations on the Human Teeth, and will compare favorably with any treatise, which at that time, had been published in England.

Mr. Wooffendale remained in London until 1795, when, after an absence of twenty-seven years, he returned to the United States and resumed his practice in New York, but at the expiration of two years, he retired with his family to a farm on Long Island, leaving his son John Wooffendale to take charge of his professional business. He died October 3d, 1828, in the eighty-seventh year of his age.

WORK TABLE. In *Mechanical Dentistry*, the table on which the operator places the implements which he employs in the construction of a piece of dental mechanism, provided with one or more small drawers, and a place for receiving the clippings and filings of the metal which he uses in its fabrication.

WORM-BARK. Andira inermis.

Worm Diseases. Helminthiasis.

Worm Grass, Perennial. Spigelia marilandica.

Worm, Guinea. Dracunculus.

WORMS. *Vermes.* In *Zoology*, a term applied to the different divisions of intervertebrata. The term *vermes*, however, is generally restricted to intestinal worms.

WORMSEED. The seeds of the *chenopodium anthelminticum.* Also, the flowers, tops and seeds of the *artemisia santonica.*

Wormseed Oil. The essential oil of the chenopodium anthelminticum.

WORMWOOD. Absinthium.

WORT. An infusion of malt.

Wort, St. John's. Hypericum perforatum.

WOUND. *Vulnus.* In *Surgery*, a solution of continuity in any of the soft tissues of the body, produced by external violence.

Wound, Contused. A wound produced by a blunt instrument or body.

Wound, Incised. A wound inflicted by a cutting instrument.

Wound, Lacerated. When any of the soft parts of the body are torn, it is termed a *lacerated wound.*

Wound, Punctured. A wound made with a pointed instrument.

Wound, Poisoned. A wound in which some venomous substance is introduced.

Wound, Gunshot. A contused wound.

WRENCH. A sprain.

WRINKLE. A furrow in the skin.

WRIST. Carpus.

WRY NECK. *Torticollis.* A permanent inclination of the head to one side, arising from a contraction of the integuments or the sterno-mastoid or platysma myoides muscle.

X.

XALAPPA. Jalap.

XAN'THIUM. The name of a genus of plants.

XANTHIUM STRUMARIUM. The lesser burdock.

XANTHOCHYMUS OVALIFORMIS. One of the trees yielding gamboge.

XANTHOP'SIA. From ξανθος, yellow, and οψις, vision. Yellow vision; a defect of sight, as sometimes occurs in jaundice, in which objects appear yellow.

XANTHORRHI'ZA. The name of a genus of plants.

XANTHORRHIZA APIIFOLIA. *Xanthorrhiza tinctoria.* Yellow root.

XANTHORRHŒ'A. The name of a genus of plants.

XANTHORRHŒA HASTI'LIS. *Xanthorrhœa arborea.* The grass tree of New South Wales.

XANTHOS. Yellow.

XANTHOX'YLUM. The name of a genus of trees.

XANTHOXYLUM FRAXIN'EUM. The shrubby prickly ash; tooth-ache bush.

XANTOLINA. Artemisia santonica.

XERA'SIA. From ξηρος, dry. A disease of the hair characterized by dryness and cessation of growth.

XEROCOLLYR'IUM. A dry collyrium.

XEROPHTHAL'MIA. From ξηρος, dry, and οφθαλμια, inflammation of the eye. Dry inflammation of the eye.

XI'PHOID. *Xiphoides;* from ξιφος, a sword, and ειδος, likeness. A term applied, in *Anatomy,* to an appendix which terminates the lower part of the sternum from its resemblance to a sword.

XIPHOSURA. From ξιφος, a sword, and ουρα, a tail. A tribe of crustaceans, in which the body terminates posteriorly in a long, hard, sword-shaped appendage.

XYLO-ALOES. Aloes wood.

XYLOBALSAMUM. Balm of Gilead, or balsam of Mecca tree.

XYLOSTROMA GIGANTEUM. Oak-leather.

Y.

YAM. An esculent root, principally obtained from *dioscorea;* the *alata, bulbifera,* and *sativa.*

YARROW. Achillea millefolium.

YAWNING. Gaping; followed by prolonged and sonorous expiration.

YAWS. See Framboesia.

YEAST. Fermentum.

YEAST CATAPLASM. A yeast poultice.

YELLOW ARSENIC. The yellow sulphuret of arsenic.

YELLOW BERRY. Podophyllum montanum.

YELLOW FEVER. See Fever, yellow.

YELLOW ROOT. Xanthorrhiza apiifolia.

YELLOW SANDERS. Santalum album.

YELLOW WASH. Corrosive sublimate and lime-water.

YEW TREE. Taxus baccata.

YOLK OF EGG. Vitellus.

YOUTH. Adolescence.

YPSILOGLOSSUS. The hyo-glossus muscle.

YRIDES. Orpimint.

YTTRIA. An earth of a white color.

YTTRIUM. The metallic basis of yttria.

YUCCA. The name of a genus of plants.

YUCCA GLORIOSA. Adam's needle.

Z.

ZAFFRAN. The saffron plant.

ZAFFRE. Impure oxyd of cobalt.

ZAMIA INTEGRIFOLIA. The Florida arrow-root is furnished by this and other species of zamia.

ZARSA. Smilex sarsaparilla.

ZBONATREIT. On Second Dentition, by. Leipsic, 1738.

ZEA. The name of a genus of plants.

ZEA MAYS. Indian corn.

ZEDOA'RIA. Zedoary; kæmpferia rotunda.

ZEIDLER. Dissertation on Pain of the Teeth, by. Leipsic, 1631.

ZEINE. An albuminous body of corn.

ZERNA. An ulcerated tetter.

ZERO. A cypher; the commencement of any scale marked 0. The point from which a thermometer is graduated. The zero of Fahr. is 32° below the melting point of ice.

ZERUM'BET. The root stalk of *curcuma zerumbet*.

ZIBETH'UM. The civet.

ZIG'ZAG. Flexuosus; something that has short angles.

ZINC. *Zincum*. A brilliant metal of a bluish-white color, harder than lead, but less malleable than either copper, tin or lead. It fuses at 700° Fahr. It is much used in the arts, and for the production of galvanism. In *Mechanical Dentistry*, it is used for models in striking up gold and other bases for artificial teeth. In ordinary cases, it being much harder than lead or tin, it answers as well for this purpose as copper or brass.

ZINC, BUTTER OF. Chloride of zinc.

ZINCHUM. Zincum.

ZINCI ACETAS. Acetate of zinc.

ZINCI CARBONAS IMPURA. Calamine. Native impure carbonate of zinc.

ZINCI CARBONAS PRÆPARATUS. Prepared carbonate of zinc. Prepared calamine.

ZINCI CHLORIDUM. Chloride of zinc. Butter of zinc.

ZINCI, CYANURETUM. Cyanuret of zinc.

ZINCI FERROCYANURETUM. Ferrocyanuret of zinc.

ZINCI IODIDUM. Iodide of zinc.

ZINCI OXIDUM. Oxyd of zinc.

ZINCI SULPHAS. Sulphate of zinc.

ZINCI VALERIANAS. Valerianate of zinc.

ZINCUM. Zinc.

ZIN'GIBER. *Zingiberis*. The name of a genus of plants.

ZINGIBER ALBUM. White ginger.

ZINGIBER GERMANICUM. Aurum maculatum.

ZINGIBER NIGRUM. Black ginger.

ZINGIBER OFFICINALE. The ginger plant.

ZINZIBER. Zingiber.

ZIRGLER, FR. On the Chief Diseases in the Cavities of the Os Frontis, and those of the Upper and Lower Jaws, by. Rinteln, 1750.

ZIZA'NIA. The name of a genus of plants.

ZIZANIA AQUAT'ICA. Water rice.

ZOANTHRO'PIA. From ζωον, an animal, and ανθρωπος, a man. A species of melancholy in which the patient believes himself transformed into an animal.

ZOE. Life.

ZONA. A zone.

ZONA CILIARIS. The ciliary ring of the eye.

ZONA HERPETICA. Herpes zoster.

ZONA PELLU'CIDA. A transparent spot in the young ovum.

ZONA TENDINO'SA. A whitish circle around the auriculo-ventricular orifice of the heart.

ZONE. A girdle, or belt.

ZONULA. A little zone.

ZOOCHY'MY. Animal chemistry.

ZOOG'ENY. *Zoogenia;* from ζωον, an animal, and γενεσις, generation.—*Zoogenesis.* The doctrine of the development and growth of animals.

ZOOL'OGY. *Zoologia;* from ζωον, an animal, and λογος, a discourse. A treatise on animals.

ZOON. An animal.

ZOONIC. Relating to animal substances.

ZOONOM'IA. From ζωον, an animal, and νομος, a law. The laws of organic life.

ZO'OPHYTE. *Zoophyton;* from ζωον, an animal, and φυτον, a plant. The lowest class of animals, as the entozoa, infusoria and sponges.

ZOOSIS. Animation.

ZOOT'OMY. *Zootomia;* from ζωον, an animal, and τεμνω, I cut. The dissection of animals. Comparative anatomy.

ZOSTER. The shingles.

ZOZAR. Saccharum.

ZUCHAR. The Arabic name for sugar.

ZULAPIUM. A julep.

ZYGO'MA. From ζυγος, a yoke. The opening under the zygomatic process of the temporal bone and os malæ.

ZYGOMAT'IC. *Zygomaticus.* Pertaining to the zygoma.

ZYGOMATIC PROCESS. A process of the temporal bone, which, by its articulation with the posterior angle of the os malæ, forms the zygomatic arch.

ZYGOMATIC SUTURE. The articulation of the zygomatic process with the malar bone.

ZYGOMATICUS MAJOR. A long, narrow muscle which arises from the malar bone near the zygomatic suture, and is inserted into the angle of the mouth.

ZYGOMATICUS MINOR. This muscle arises from the anterior part of the malar bone, and is inserted in the upper lip above the corner of the mouth.

ZYGOPHYL'LACEÆ. The bean caper tribe of dicotyledonous plants.

ZYGOPHYL'LUM FABAGO. A Syrian and mauritanic plant.

ZYME. Ferment.

ZYMO'SIS. Fermentation.

ZYMOT'IC. *Zymoticus;* from ζυμοω, to ferment. An epidemic, endemic, or contagious affection.

ZYTHOGALA. Posset, a mixture of beer and milk.