

The medical guide, for the use of the clergy, heads of families, and practitioners in medicine and surgery : comprising a practical dispensatory and treatise on the symptoms, causes, prevention, and cure of the diseases incident to the human frame ; with the latest discoveries in medicine / by Richard Reece, M.D.

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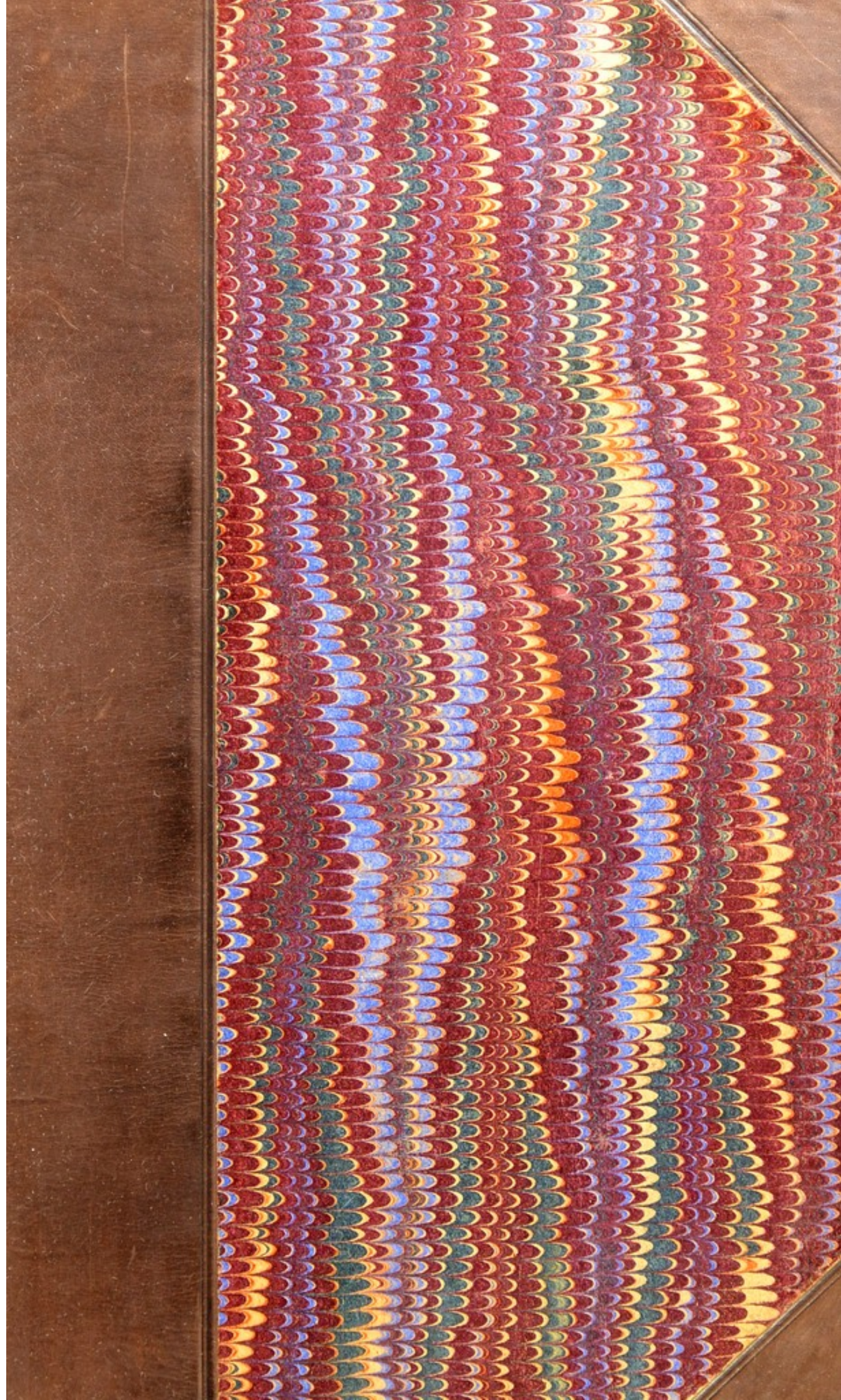
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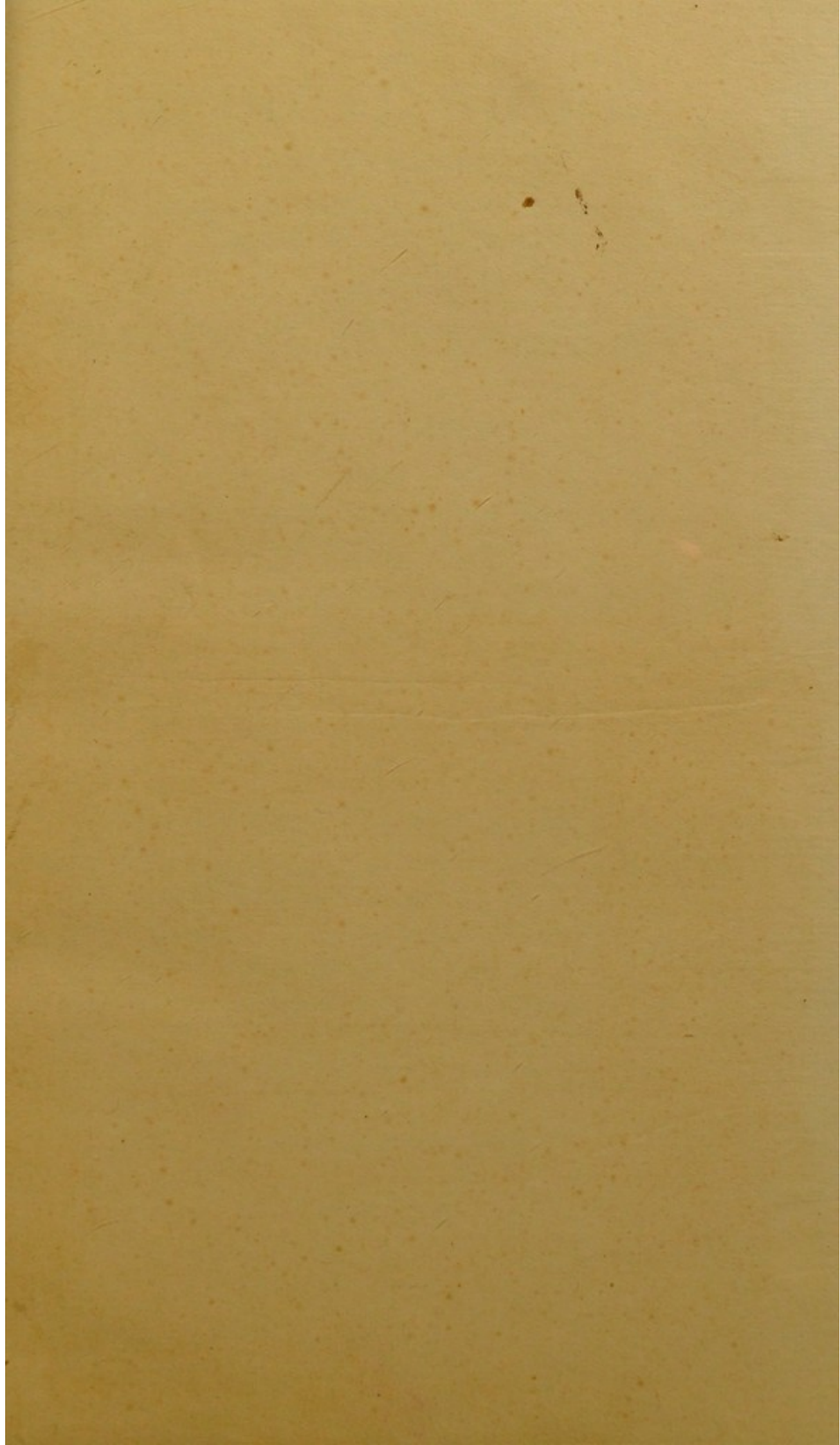
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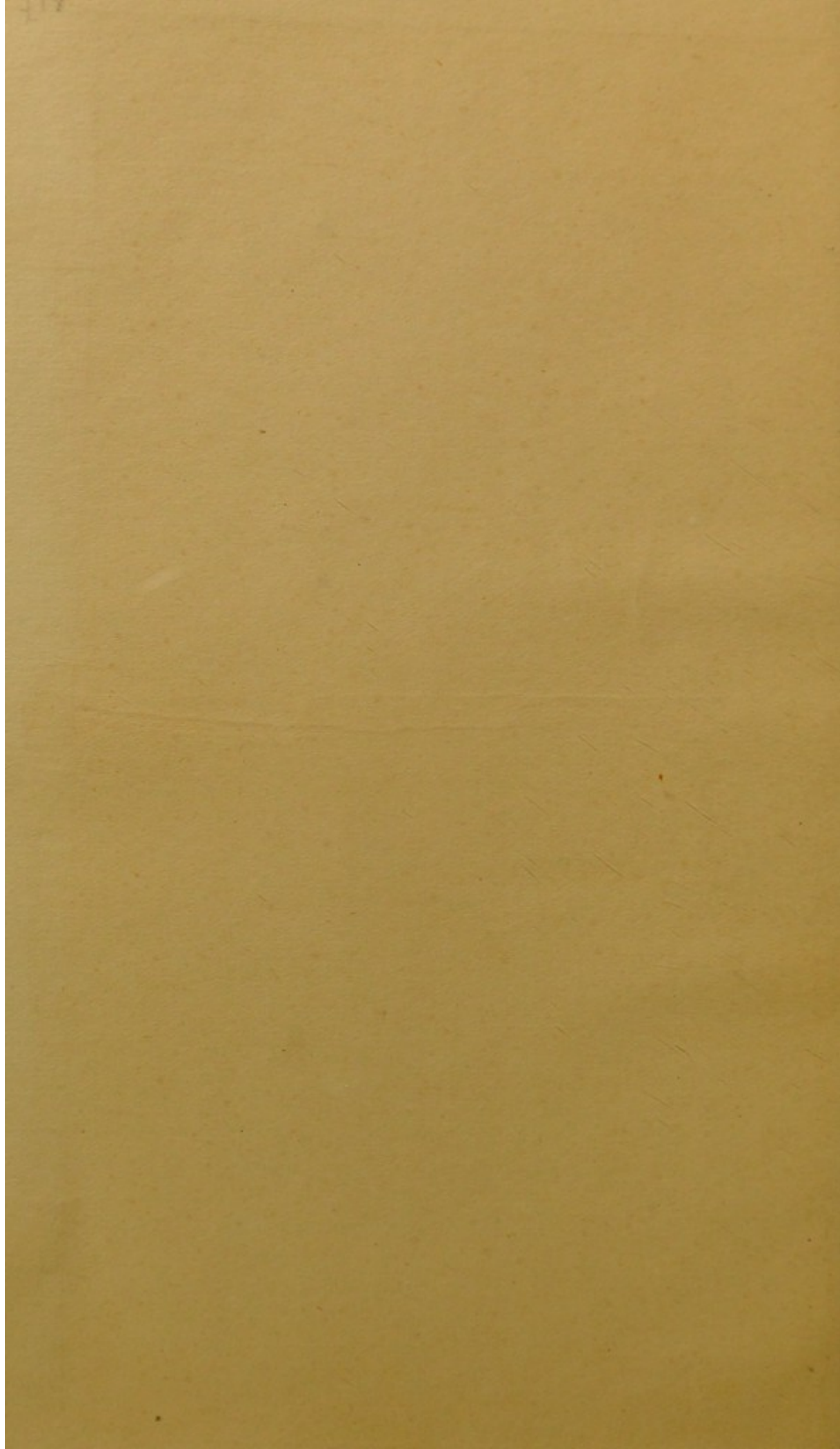
1812

The Moral Thermometer P140

Last four pages minor repairs







THE
MEDICAL GUIDE,
FOR THE USE OF THE
CLERGY, HEADS OF FAMILIES, AND PRACTITIONERS
IN MEDICINE AND SURGERY:
COMPRISING A
PRACTICAL DISPENSATORY,
AND
TREATISE
ON THE
SYMPTOMS, CAUSES, PREVENTION, AND CURE,
OF THE
DISEASES INCIDENT TO THE HUMAN
FRAME;
WITH
THE LATEST DISCOVERIES IN MEDICINE.

BY RICHARD REECE, M. D.

*Member of the Royal College of Surgeons in London; Author of the
Practical Dictionary of Domestic Medicine, &c. &c.*

NINTH EDITION,
CONSIDERABLY ENLARGED AND IMPROVED.

Qui studet optatam cursu contingere metam
Multa ferat faciatque.

LONDON:

PRINTED FOR LONGMAN, HURST, REES, ORME, AND BROWN,
PATERNOSTER-ROW.

1812.

TO THE
RIGHT REVEREND
RICHARD WATSON, D.D.

LORD BISHOP OF LANDAFF,

&c. &c.

MY LORD,

SINCE I had the honour of inscribing the Medical Guide to your Lordship, several large editions have been required by the continued and increasing demand of the public for the work. I cannot doubt that the sanction of so respectable a name has greatly contributed to procure for it the confidence it has obtained from the parochial Clergy, heads of families, and the many excellent persons who devote their lives to the relief of the sufferings of those who are unable to apply on every occasion of sickness to a member of the profession. It has been my endeavour to render every successive edition more worthy of your Lordship's patronage and the public approbation. Every improvement which has been made in medical practice has been carefully introduced ; the sentiments of the most respectable medical authors have been adverted to ; the properties of some new and powerful medicines have been noticed, with their proper mode of administration ; and the effects of regimen in obstinate chronic affections have received that just regard to which, from the importance of the subject, it is entitled.

I may then say, I hope, without the imputation of vanity, that, if the Medical Guide were not, in its former edition, unworthy your Lordship's protection, in its present form it has far more powerful claims to this honourable distinction.

It is a happy feature in modern manners that medicine is no longer the property of a privileged order. — To every individual, health is the most valuable of sublunary possessions ; it is fit, therefore, that all should be instructed in the methods of restoring or preserving it, so far as is compatible with the ordinary vocations of life. To promote this salutary purpose has been the great object of the attention I have paid to these subjects for many years. I cannot doubt that a persuasion of the sincerity of these professions has procured for me the patronage of a Prelate so eminently distinguished for talents, benevolence, and liberality of sentiment.

I have the honour to be,

With the greatest respect,

MY LORD,

Your Lordship's very obedient, and

Much obliged Servant,

RICHARD REECE.

Bedford-street, Covent-garden,

July 20th, 1812.

PREFACE.

IT is common for those members of the medical profession who do not cultivate the healing art in the liberal manner of philosophers and friends to their species, to speak in terms of great contempt of works on domestic medicine. They are aware that a diffusion of knowledge will enable the public to distinguish the man of judgment from the impostor. It is the pretender alone that shrinks from the eye of intelligence; for he has the cunning to know that the man of science will detect his ignorance.

In consequence of the author having exposed, in the former editions of this work, the disgraceful practices of medical men, and the unfitness of a certain class of physicians to practise the healing art, he has drawn upon him the censure and resentment of the sordid and ignorant members of the profession, who have attacked the MEDICAL GUIDE and the author in some periodical works.

These gentlemen have not considered that the motives which determined him in this conduct were not generated by any selfish spirit, but proceeded from a zeal for professional improvements, and the interests of science. Unable to refute the bold, but true, assertions he has made respecting their incapacity to practise, they have had recourse to the meanest of all arguments—the employment of calumny—the weapon of the coward and assassin. To falsehood, directed by such mean motives, he is perfectly indifferent. He is satisfied that he has elicited from them a declaration that they are afraid of public opinion; and this con-

cern, he hopes, will be the means of leading them to improvement.

The author has dared to assert, that a diploma is too often assumed as a cloak for ignorance; and that a physician should be conversant with anatomy, chemistry, surgery, and the materia medica, in order that he may be able to concentrate the rays of each on the important question of practice—to decide with sober judgment on the doubtful points which occur in the practice of medicine; and so satisfied is the author of the truth of this assertion, that he has long resolved to meet no medical man in consultation who is not thus qualified.

Henry the Eighth granted a charter to the College of Physicians, in favour of the graduates of Oxford and Cambridge, which still continues in force, although these universities are no longer schools of medicine: and to obtain a medical degree at either, it is not necessary to be acquainted with medicine; the healing art at the time the charter was granted being at so low an ebb, that a knowledge of the classics was thought a sufficient qualification for a physician: and were we to judge by a late act of parliament, which protects quackery, the legislature appears to entertain the same contemptible opinion of it. Certain it is, that, such is the deplorable deficiency of science in medicine, there does not exist a fundamental principle on which physicians have a general agreement. Even in acute diseases, or maladies of frequent occurrence, they recommend treatments diametrically opposite to each other!! It is therefore a fair question, whether physic, practised as it is in London, does more harm than

good? At any rate, it ill becomes such men to condemn domestic medicine.

The MEDICAL GUIDE is the result of twenty-five years' extensive experience. The author has long acted on the instructions it contains both in hospital and private practice; and the more he hears of the success that has attended their adoption by the heads of families throughout the country, the firmer is his conviction of the utility of domestic medicine under proper regulations. Within the short space of seven years, the work has gone through eight heavy editions. It has been translated into different languages on the continent, under the sanction of eminent medical characters, and reprinted in America as a book of reference for the medical profession.

Strongly convinced of the importance of a knowledge of medicine to the community, the author has been induced to publish another work, more extended in its object than the present one, including a popular view of *Anatomy, Chemistry, Dietetics, Pharmacy, &c. &c.* In this circle of information, every thing is comprehended that is necessary to render man better acquainted with himself, in what regards his form or structure, his constitution, and the different powers that act upon it. The reader desirous of enlarging his mind with a knowledge of the principal truths of anatomy, physiology, &c. &c. he flatters himself, will by it be amply gratified. To the contemplative mind, the study of the wonderful mechanism of the human body cannot fail to afford the most exquisite pleasure; while it must prove highly beneficial to society, by enabling the public to detect ignorance, and guard against every species of quackery. This work, entitled "A

PRACTICAL DICTIONARY OF DOMESTIC MEDICINE," is published chiefly for the use of the clergy, under the sanction of their Graces the Archbishops of Canterbury, York, and Dublin; the Bishops of Durham, Oxford, Winchester, Hereford, Ely, Rochester, Peterborough, Carlisle, Chester, Landaff, St. Asaph, St. David's, Clogher and Ossory, &c.

This work has not only introduced the author to the first families in the kingdom, and to gentlemen whom he highly esteems for their scientific attainments, but has made known to the public his Institution* for supplying them with genuine drugs and the choicest chemical preparations. The sanction it has received from the first families and medical characters, proves the utility and necessity of the establishment. Although the Apothecaries' Hall has been held in great esteem for genuine drugs, the author can with confidence assert, that at this Institution more attention is paid to the preparation of every article; and he challenges a comparison between them by any impartial judge. One great superiority attending this establishment is, that the different processes in chemistry are conducted on the most recent improvements, to give every medicine its most active and genuine form.

* The Chemical and Medical Hall, 20, Bedford-street, Covent-garden.

.. The Author attends at the Chemical and Medical Hall every Monday, Wednesday, and Friday, from ten till twelve o'clock in the forenoon, to give his advice to servants and people recommended by a housekeeper as proper objects of charity. Consumptive and chronic patients are also furnished with medicine gratuitously.

INTRODUCTION.

IN the Family Dispensatory which forms the first part of this work, the author has detailed the qualities, doses, and most useful combinations, of the drugs which are best adapted for domestic practice: by which it will appear that we have remedies capable, under certain circumstances, of depressing and invigorating the vital powers; of allaying pain and morbid irritation; of checking and accelerating the circulation of the blood, and diminishing its quantity; of rousing the action of the absorbent system; of increasing the secretion of different organs, as the liver, the kidneys, &c.; of exciting perspiration; of relaxing and constringing the muscular system; and of emptying the stomach and intestines, &c. But although this knowledge of remedies is the ultimate object of practice, it is not the most important one; for to administer them with success, or even with satisfaction to ourselves, a previous knowledge of the laws of animal life, and of the powers which regulate the system, and direct its movements, is requisite, in order to discover the origin, seat, and tendency, of derangements, or deviations from health. Without such knowledge, it is evident we shall not be able to discover clear indications of cure, which may be forcibly illustrated by the single observation, which every individual is capable of making, that the same disease occurs in constitutions and habits of body diametrically opposite to each other; and that the plan of treatment pursued in the one case can by no means apply, or be expected to be successful, in the other. A mere knowledge of remedies is, therefore, complete empiricism, and contemptible in the extreme. But to a mere knowledge of remedies it is impossible that the mind of a conscientious practitioner can confine itself; wherever it acts, it must reason; and in administering the pill or draught, it must form its ideas of the operation of the medicine, and of the particular nature of the morbid state, for the cure of which it is administered. Every man should know something of his own structure, and acquire the knowledge inculcated by the Greek proverb—*Know thyself*—as applied to the internal part, or mind; and it is no less neces-

sary as to the external matter, or machine, in which this mind is inclosed. To qualify us to administer remedies in cases of indisposition, a minute acquaintance with the mechanism of the body may not altogether be requisite, but it is absolutely necessary to know the situation of the principal organs, their offices, or particular uses, as well as their connection with each other.

For the purpose of imparting this information, I shall offer a cursory view of the principles of life, and the laws of those organs which animate, continue, and regulate, the animal machine; of those which are engaged in the nourishment or support of the body; and those whose office is to convey superfluous or excrementitious matter from it.

When the body is defunct, or the principle of animation has ceased to exist in it, the first circumstance that strikes the bystander, or proclaims the melancholy event, is the coldness that takes place, and the loss of that active matter we term heat. Heat, then, appears to be the vivifying principle of the animal structure, as well as the rest of nature; and that the very spark of life is connected with it, is proved by the artificial incubation of the egg, and animation and progress of the chick by it alone;—a practice so prevalent in Egypt, as to form an extensive branch of trade. The origin of this animating principle, then, claims our first enquiry.

The BRAIN and LUNGS are evidently the organs that produce this animating principle—*heat*. The brain we find possessed of electrical powers, and the subtile matter termed nervous or galvanic fluid is conducted from it over the system by means of the branches termed nerves*. Vital air, termed

* This subtile fluid may be collected in the animal body by covering the surface with silk. People accustomed to wear silk stockings, particularly gouty subjects, are well aware of this fact; for, on pulling them off in the dark, they may see it escape in sparks. When the skin is dry, so as not to afford a conducting surface, or when the excitability of the brain is increased, it is often discharged from the brain on the approach of sleep, producing a real electrical shock: this effect, termed starting, we often witness in infants during sleep. Another confirmation of this fact may be drawn from the torpedo and cat. It is probably on account of the brain possessing an electrical power that changes of atmosphere disturb the nervous system. Lightning, by over-stimulating the brain, and destroying its electrical power, often produces sudden death. The vitality of vegetables is no doubt equally dependent on electricity; and the reason why they do not flourish in large towns, is, that the electric matter of that part of the earth is exhausted by the number of the inhabitants. A deficiency of electric fluid in different parts of the world, in consequence of some morbid state of the earth, is the cause of some diseases which are attributed to contagion. See Typhus Fever, 490.

oxygen, imbibed or attracted by the red particles of the blood in their passage through the lungs, is transmitted over the body by means of the arteries, which are tubes from the heart; and these vessels accompany regularly in their course the nerves. Hence the nerves being positively, and the blood in the arteries being negatively, electrified, an union takes place, the consequence of which is the production of heat in every part of the machine*. The blood, thus deprived of its vital air (oxygen), is returned by the veins, another series of vessels, to the lungs, to have this essential quality restored to it†. The lungs have not been inaptly termed the bellows of the animal machine; for, by supplying the system with oxygen, they act in the same manner as the bellows employed by the mechanic or chemist to force oxygen through the fire, for the purpose of increasing the heat. Life may, therefore, be considered as a species of ignition, kept up by the brain and lungs: and hence the body may be regarded

* When the excitability of the brain is increased by change of weather, or other causes, and the blood be over-charged with oxygen,¹ there will be an increase of heat, producing what is termed inflammatory fever, which will exhibit different symptoms, according as the sensient power of the brain and nerves is disturbed, and the state of the constitution. (See Inflammatory Fever and Typhus.) In some instances, the heat or ignition of body has run so high as rapidly to produce decomposition of the body. (See note, page 374.) Local increased ignition (inflammation) will often run so high as to destroy the structure of the parts, and produce decomposition, termed mortification.

† That the brain is concerned in the production of heat was first noticed in the seventh edition of this work, published in January, 1810. If the principal nerve of a limb be divided or paralysed, the limb will become cold; and the same effect will follow the division or destruction of the principal artery which plainly prove that the production of heat depends on the action of both: but what is still more conclusive, is, that the blood in the veins of a paralytic limb, from the division of the principal nerve, is not deprived of the oxygen it attracted in its passage through the lungs. Mr. Brodie, an ingenious surgeon in London, has recently published the result of many experiments on animals, which satisfactorily prove that the brain is the principal agent in extricating heat. The influence of the passions on the brain, in diminishing and increasing the heat of the body, is a corroborating proof.

1 The supply of oxygen depends on the quantity of red particles present in the mass of blood; and when we extract blood, in cases of fever or inflammation, the object is to diminish their quantity. The volatile particles of contagion enter the mass of blood by the lungs. The urine of a person, from inhaling the vapour of turpentine, and, what is the same thing, the atmosphere of a newly-painted room, emits the same odour as if he had taken turpentine into the stomach. When the blood is not properly supplied with oxygen, in consequence of disease of the substance of the lungs, the red particles attract it from the surfaces of the body in which the skin is the most delicate, as the lips, cheeks, &c. producing superficial or local heat. (See Hectic Fever, page 248.)

as an animal laboratory, furnished with a variety of organs; the secretions of which are all dependent on chemical affinity, which is under the influence of heat. In all diseases, especially of parts essential to life, we must particularly attend to the state of the igniting powers, viz. the brain and the blood; the former with respect to the degree of excitability and irritation, and the latter with respect to quantity. Their combined influence powerfully re-acts on local mischief or disease. Morbid irritation is often productive of diseased structure, which is both the effect of increased ignition or vitality, and diminished ignition or relaxation. To determine the real cause, particularly when the mischief is situated in the lungs, intestines, and other internal parts, is often very difficult. (See Nervous Diseases, page 428, and Consumption, page 253.) The electrical, as well as the sentient, power of the brain, is often disturbed by the chemical action of the blood, in consequence of being surcharged with salt, as noticed under the head of St. Anthony's Fire. But the electrical power of the brain is not the only one which it possesses; this complex organ inherits also a sentient power, in which the primary moving powers of the body reside; and, in this point of view, requires very particular attention and investigation. Thus, besides the nerves, or ramifications from the brain, conveying a nervous fluid, different sentient offices are also assigned them, according to their particular distribution. For instance, the optic nerves, expanded within the eyes, form the medium of vision; the lingual nerves, distributed to the tongue, are the means of taste; the auditory nerves, leading to the ear, form the active cause of hearing: and, in fact, every part of the body is supplied with them, for special purposes, suited to its structure and office. Hence the same agents, regulated by the difference of structure to which they are distributed, produce very different sensations, under the influence of morbid irritation. Thus, where the nerves belonging to the membrane of the lungs and air-vessels are in a state of morbid irritation, the disease termed *asthma* is produced; (see *Asthma*, page 196): when the nerves of the stomach are disordered, indigestion takes place; (see *Indigestion*, page 370): where the internal membrane, the intestines, becomes affected in like manner, *diarrhœa* is the consequence; (see *Diarrhœa*, page 290, and *Colic*, page 256): where the ligaments of the joints suffer from the same cause, rheumatism is the name that distinguishes the disease: and where the teeth, tooth-ach. The brain itself, under the same morbid influence, according to its degree, becomes affected with delirium or insanity.

In almost every individual the nerves of some parts of the

body are more tender than others, and such parts will, of course, be more liable to be affected, by external or different causes, than others. Thus, changes of weather, or the influence of a variable and moist atmosphere, will produce in one person an attack of asthma; in another, rheumatism; in a third, it will bring on diarrhœa; and in a fourth, as readily, a cutaneous eruption. Still, the cause of all is the same, and the effect only varied by the structure or offices of the parts.

This sentient power which the brain and nerves possess may be considered as being a certain standard medium, which is apt to be influenced, no less than its electrical disposition, by changes of atmosphere. Where this standard or medium degree of its irritability, which produces the feeling of health, is increased, disease takes place, both by the vitality running too high, and also by its diminution or weakness. Hence, from this view, all diseases may be arranged into three classes, or orders—of *super-irritation*, *sub-irritation*, and *diminished irritation*—a distinction of the greatest importance in practice.

Another subject of great consequence, in order to combat diseases with success, and highly necessary to be attended to in considering the laws of the animal economy, is the sympathy that exists between particular organs of the body in preference to others. So strong is this sympathy often experienced between two organs where the one is under disease, that it is often very difficult to determine which was primarily affected. Thus, in morbid irritation of the brain, we find the stomach disturbed with nausea, and other symptoms of indigestion, and *vice versa*. Both the womb and kidneys powerfully sympathise with the stomach, and irritation of either is followed by vomiting. The intestines and abdominal viscera display a wonderful sympathy with every part of the body, and the slightest morbid irritation in them often disturbs the whole nervous system; as is instanced in hypochondriacism and other maladies. In local diseases, the state of the nervous system forms an important consideration. Every attention should be paid in the treatment, to keep it quiet; for when disturbed by the irritation of the local affection or derangement, it is apt to disturb the electrical powers of the brain; and thus to produce increased ignition, or what is termed sympathetic fever. Nor is it less necessary, in attending to local diseases, that we ascertain whether actual diseased structure be attendant on the symptoms, or only a state of simple irritation. Thus, the liver will continue to shew for a long time symptoms of disease, and yet no organic change of structure be conspicuous. The same may be said of other internal parts.

Increased irritation, whether of the super or sub-irritative kind, may sooner or later produce local derangement of structure, by disturbing the action of the absorbent and secerning vessels. Hence pain, or morbid irritation, ought always to claim attention, from the consequences which may ensue.

But, independently of the electrical and sentient functions of the brain hitherto considered, this complex organ possesses also an intellectual power, and forms the connecting medium between the body and that immaterial part we call the soul. The primary moving powers of the body, therefore, reside in the brain. It is named the sensorium; and the intellectual functions there resident influence both the electrical and sentient powers of this part of the body. Hence passions of the mind exercise a considerable sway over the corporeal part, and are, as they have been aptly styled from this influence, the gales of life. The stimulating ones in particular augment the electrical powers of the brain, and thus increase the heat of the system. The depressing ones produce an effect exactly opposite. As the different organs and parts of the body receive their sentient powers from the brain, so they are affected by the passions of the mind, as well as their diseases. The influence of the passions seems equally powerful in its operation as changes of weather, and shew their action more especially on parts that are tender and irritable. Thus, for example, anger, one of the most violent of the passions, will be attended in different individuals with very different consequences: for in some it will produce head-ach, and tendency to apoplexy; in others, asthma; in others, diarrhœa, &c. On the same principle, of the influence of the intellectual operations, we find the system not only quieted, but even the activity of disease diminished, by the mild and gratifying passions of hope and confidence. The stimulant effect of the passions has been known in some cases so violent, as to occasion fever, apoplexy, and even death. From the great sympathy existing between the brain and heart, the passions seem particularly to act on the latter, and the feeling of grief is generally referred to this part*. From the nerves also, or elongations of the brain, accompanying the arteries, or ramifications of the heart, we can account for that want of

* During sound sleep the intellectual functions of the brain appear to be suspended; but when the sentient power is in a state of increased irritation, an action is kept up in it, producing what is termed dreams.

nourishment, or deficient supply for the vitality of the system, which takes place wherever the patient is under the influence of grief. (See Passions of the Mind, page 126.) Such being the effect of the intellectual operation on the body, it requires, in all diseases, an important and serious attention. The abuse of spirituous liquors, it may also be remarked, has a similar influence as the other causes specified in producing local derangement, and may be explained in a similar manner—by exciting and continuing irritation in the brain.

From this short view of the powers which animate the body, viz. the brain and lungs, and an examination of the three important functions of the former, we proceed to notice the different organs engaged in the support and growth of the body.

The first that claims our attention, after the brain and lungs, is the heart. By this organ, the blood, that vital stream, is conveyed to every part, in order to nourish and renovate them, independently of being the vehicle of oxygen. The heart may be considered as the strongest of all the muscles; hence, when affected by spasm, it is of the most violent kind. From its constant and powerful action, it is subject to a peculiar disease, from the ossification of certain parts retarding the velocity of its circulation, and often almost suspending its action, termed the *pectoral angina*, the symptoms of which are peculiar, and the issue fatal.

After the heart, the next organ of importance is the stomach, the receptacle of the food, and the seat of digestion. This organ secretes a peculiar fluid, termed the gastric juice, which varies in its qualities in different animals, according to the nature of the food on which they are destined to live. This important organ is muscular, highly nervous, and indirectly possesses a sympathy with every part of the system, through its connection with the brain. Its diseases, therefore, powerfully affect the body, and impair the vigour and strength of the machine. (See Indigestion.)

When the food has gone through the process of digestion, or is what termed assimilated, it is emptied into the intestines; and as it passes through this tube, the chyle is taken up by the absorbent vessels, and by them conveyed to the mass of blood, whence it is separated by vessels connected with the arteries, termed *secerning extremities*, or *nutrient vessels*, for the support of the different parts of the body.

The lesser organs of the spleen and pancreas may be regarded merely as appendages to these principal ones. The office of the former appears to be mechanical; while the latter furnishes the stomach with a fluid of the nature of saliva, which

is necessary to promote the solution of the food, and to form the matter termed chyle.

Such is the manner in which the growth and support of the body take place: but while this is going on, the old parts of the body are removed by the absorbents, and the particles conveyed into the mass of blood. The mass of blood becomes accordingly loaded with impurities; but nature has provided that these impurities should also be removed by means of certain appropriate organs. The principal organs for this purpose are four:—the liver, intestines, kidneys, and skin. Into the first of these the blood passes as it returns to the heart through the veins: and here is secreted a yellow matter, termed the bile, which is discharged into the intestines, and is mixed with the refuse of the food, to be ejected from the body. Hence, the liver may be considered as the great depurator of the constitution, and therefore exercising a most important office, and on the due action of which the health of the body materially depends*. Though its secretion, the bile, has been alleged to promote digestion, the reverse may be inferred, if we are to judge of its effects, whenever, from the action of vomiting, or other causes, it gets into the stomach. Besides, were it so intended, it would be emptied into the organ where digestion takes place. On the contrary, we find an increased secretion of bile is always productive of great irritation of the intestines, and its presence in the stomach uniformly excites considerable nausea, and frequently vomiting.

The second organ appropriated for purifying the mass of blood is the intestines. Through this organ the food passes after it has left the stomach, having its nourishing part taken up by the lacteals. Besides which, there is a copious secretion of feculent matters from the whole internal surface; thus, while one set of vessels take up nutriment and convey it to the mass of blood, another discharge the impurities from the blood. The intestines are of great extent in most animals, and are folded in different directions, in order to detain the matter received from the stomach, that its nutrient part may be absorbed.

The third organ, the secretion of which is excrementitious,

* The yellow colour of the *faeces* depending on the bile, we may ascertain by their colour if the liver properly perform its office. When the brain and nervous system are in a morbid state of irritation, the *faeces* exhibit a dark-brown appearance, and the intestines are often distended with inflammatory air very offensive to the smell; hence we cannot judge by the colour of the *faeces* of nervous patients whether the secretion of bile be deficient in quantity or otherwise.

is the kidneys. They separate from the blood superfluous water, which is charged with various matters, as muriate of soda (common salt), phosphate of lime, pus, &c. These organs seem to exercise, in the performance of their functions, a similar office with the skin. Between these two a remarkable sympathy exists; and a deficiency in the quantity of the secretion of one is generally supplied by the other. The discharge by the skin is also often known to emit an urinous smell, and to possess similar qualities.

In prosecuting this view of the body, it will appear that the absorbent vessels form an important system in the animal economy; and on the regular and healthy performance of their offices the health of the body greatly depends. In subjects of delicate structure, this system is often very tender and irritable; and from this state arises that peculiar morbid condition, termed scrofula. In such a state, when a loss of the equilibrium of action ensues between the discerning extremities of arteries and the absorbents, an accumulation is produced in different parts, as in certain glands or organs, the cellular membrane and ligament of joints, &c. sometimes ending in ulceration. But it is in age that the most formidable diseases of the absorbent system occur, in consequence of these vessels losing their power of action, either from diseased structure or debility, especially in glands, or parts approaching the texture of glands. Hence the frequency of this morbid state in the breasts of females. The absorbents of the gland once failing to perform their office, an accumulation of glandular matter takes place, till the ramifications of the nourishing arteries become so compressed as no longer to convey their nutrient supply. (See Cancer.)

The disease termed rickets arises from a similar cause, viz. an inequality of action between the absorbent and nutrient vessels, in consequence of the latter not duly performing their office. On the subject of morbid structure I may refer to an excellent work on the anatomy of the stomach and intestines, by Dr. Monro of Edinburgh.

The absorbent vessels derive, like the other parts of the system, their power of acting from the brain. Hence their diseased state is either that of super or sub-irritation. The latter will, indeed, exist locally in an organ, and by disturbing its mutation, occasion deranged structure or deposition of lymph in the cellular substance. From this view, then, the treatment both of scrofula and cancer must be regulated by the state of constitution. In scrofula, from the irritable state, or tender structure of the absorbent vessels, cold bathing, as quieting the cerebral system, is useful. The muscular system,

the office of which is to produce motion and action in every part, is no less under the influence of the brain, its branches, the nerves, being everywhere distributed through them. These spasms, like other irritative affections, are both super and sub-irritative. They are more or less severe in proportion to the mass of fibres of the muscle affected. Thus, in the calf of the leg, where the muscles are thick and strong, such spasms are very painful; and in the muscles of the jaw they are very obstinate, producing what is termed locked jaw.

The structure of the bones, those solid parts or supporters of the body, is often deranged, in consequence of deficient or inequality of action between the absorbent and nutrient vessels, producing an accumulation of bony matter or bony tumours; and at other times a deficiency of the same substance, occasioning an opposite condition, which renders them liable to curvature.

As the nerves receive their power of sensation and action from the brain, so compression of this organ, from effusion or over-distension of blood-vessels, will diminish the vitality of the body; and, in consequence, atrophy or emaciation will be induced. This is the state of nerves which forms the disease termed palsy.

But the same diseases, as I have already hinted in speaking of the absorbent system, vary at the different periods of life. The age of the person has a material influence on the different systems, particularly the cerebral system; and hence, the different periods of life have their peculiar maladies. This subject has been ably treated in a late publication by Dr. Jameson of Cheltenham; and the facts he adduces are well worthy of attention. The constitution of the child, weak and irritable, renders it chiefly liable to affections of the brain, and of the stomach and bowels*; while the period of manhood, and age of vigour, is distinguished by those of the inflammatory kind, and where super-irritation and increased ignition predominate. The stomach, then strong and vigorous, tends to a fulness of the arterial system, and constitutes the hey-day of life. But when this state of high health and vigour declines, age begins to creep on, and to bring with it a train of diseases of an opposite nature, or of a chronic kind, where sub-irritation is conspicuous. The cerebral system then loses its excitability; the pulse becomes rigid in its texture, and

* During the period of dentition the irritability of the brain is often increased to that morbid degree as seriously to disturb the constitution. But the death of infants in this metropolis is often sudden without any apparent cause.

callous to the feel; and morbid structure, in consequence of imperfect mutation, is the attendant of this state*.

* Life is divided into five periods, each of which possesses a distinct degree of vigour, and dispositions peculiar to itself, while, at the same time, each period affects the productions of the one immediately following, in a way not very unlike to what takes place in the vegetable kingdom, in the successive seasons of the year. But to affix names and boundaries to each of the periods, involves a considerable degree of difficulty, on account of the variety of opinions, and the difference of situations, among mankind. Thus the term *infancy* has been applied by many authors to the first five years of life, when the body and mind are yet in a state of imbecility; while its limits have been extended by others to the age of puberty, when animals become independent of their parents; and it has been protracted by the laws of this country to the age of twenty-one, when persons are no longer considered as minors. All the other divisions of life have been treated in a manner equally arbitrary; but the boundaries of the periods in relation to each other, and to the whole term of life, can be considered with accuracy only upon physiological principles. Such varieties of opinion, together with the difference of boundaries arising from climate, have determined the author to adopt the names in common use, and to affix the extent of the periods by the most remarkable physiological changes which the body undergoes among the inhabitants of these islands, in town and country situations collectively. This arrangement will be found, with small variations, to apply to the generality of cases in every country of Europe.

The general divisions of the subject, therefore, are the *Fœtal state*, of nine months; *Infancy*, from birth to the end of the fourteenth year; *Youth*, from that to the end of the twenty-eighth; *Manhood*, from that to the end of the fifty-sixth; and *Old Age*, from that to the end of life. But, at the same time, it is to be understood, that some of these periods vary in their relative extent, from the different length of life among the inhabitants of different regions, as well as in the instances of extraordinary longevity occurring in this country.

Each of these periods may be subdivided into two epochs, to mark more distinctly the different degrees of strength at their beginning and end, which will bring them near to the seven ages of Hoffman, viz. *Infantia*, to the end of the 7th year; *Pueritia*, to the 14th; *Adolescentia*, the 21st; *Juventus*, the 35th; *Virilis-ætas*, 49th; *Senectus*, the 63d; and *Decrepita-ætas*, to the end of life: which divisions, in some respects, correspond with our epochs.

The coincidence of our divisions with the climacteric years of the ancients in Greece and Arabia, is not unworthy of particular attention.

Pythagorus, who derived his knowledge from the Chaldeans, Phenicians, and Grecians, applied the number seven to all sciences, physical and divine, and his opinions prevailed so generally, that Hippocrates introduced the doctrine of time combating diseases, or critical days in fevers, upon septenary principles. This doctrine became the theme of Galen, as well as of most of his followers; but Asclepiades, and a few other dissentients, asserted, that their patients were in no greater danger upon the septenary and demi-septenary days of Hippocrates than on any other days of the disease. The late Dr. Cullen was decidedly of opinion, that fevers had a tendency to change upon quaternary and septenary days; and that the doctrine of critical days, as laid down by Hippocrates, was well-founded, even in our climate. But the practitioner who has profited by experience, considers the struggle between nature and disease to vary in its periods, according to the virulence of the disorder, and the modes of treating it. The time of the crisis must also depend upon the age of the patient and the nature of the climate in which he lives.

Nor are diseases less varied by age than by sex. In the male there exists a remarkable sympathy between the brain

In a similar manner, the number seven was applied to the natural changes of the human body at its different ages. And soon after the time of Galen, we find the doctrine of climacteric years generally adopted by authors. Some reckoned seven, multiplied by the odd numbers three, five, seven, and nine, to be climacterical; but they more generally estimated every seventh year as a remarkable one; thus the 21st, 35th, 49th, and 56th, years, were supposed to bring some change to the health of the human body; and the 63d was the grand climacteric, so menaced with the storms of age, that the ancients usually congratulated each other on passing it. But soon afterwards physicians adopted nine, the magical number of the Arabians, and, multiplying nine by nine, made the eighty-first another grand climacteric year ¹.

Sthal supported the doctrine of climacteric years, but expressed doubts as to the changes of the body depending upon the seventh number, and recommended the subject to the attention of future philosophers. Hoffman, who wrote largely in favour of climacteric years, likewise denied their depending upon the force of numbers. The moderns, however, are satisfied, from bills of mortality of different countries, which are better modes of calculating than any known to the ancients, that no fatality attaches to the 63d or 81st year in particular, nor, indeed, to any one year more than another, but that there is a gradual increase of chances against the life of the individual, from the 6th or 7th year of infancy, to the greatest extent of human duration.

Notwithstanding the author does not ascribe efficacy to particular days, nor sudden danger to the natural changes of the body, yet he cannot avoid noticing the coincidence between the number seven, and the periodical changes of the human system. It is certainly greater than any regular occurrence of critical days in diseases: for if we view the revolutionary movements of the body in a general way, we find the growing period of twenty-one years to be a triple septenary; the firm, or stationary, state of the organization, to continue another twenty-one years; and the general decay of the body to last twenty-one years longer, which terminates in the grand climacteric of the ancients. If we make a more particular observation of the changes going on in the body, we find the foetus can live *ex utero* in the seventh month, the child acquires teeth at seven months after birth, and it learns to walk in seven more.

But the septennial evolutions of the machine are still more remarkable than any changes upon septenary days and months, for there do not occur seven successive years in the life of man without some evident alteration of constitution, which will become apparent in the course of the present narrative. We may, however, in the mean time, instance the renewal of the teeth at the seventh year, the arrival of puberty at twice seven, full stature at three times seven, the perfection of growth at four times seven, the greatest vigour of body and mind at five times seven, the commencement of partial decay at six times seven, general decay and decrease of energy at seven times seven, the arrival of old age at eight times seven, and the grand climacteric of the ancients at nine times seven, which the author has always observed to come nearer the extent of life enjoyed by persons who have always lived in London, than any other term that could be chosen for general calculation.

¹ The Arabian number nine is the most remarkable of all the units. Thus, when nine is multiplied by any figure or figures, the digits in the product, being added together, make up the number nine.---

Twice 9 is 18, which added make 9.

Three times 9 is 27, ditto 9; and so on.

and the genitals; and in subjects of an irritable habit we find the whole nervous system disturbed from some genital affections, or an impression made on the mind from that source. (See Hypochondriacism.) In the female, a similar sympathy takes place between the womb and brain, which is the cause of hysteria; and hence the state of the uterine health requires attention in all the diseases of the female. (See Hysterical Affection.)

For the information of such of his readers as may be desirous of being further acquainted with the healing art, and of guarding against the impositions of the ignorant pretender, the author has subjoined a list of medical works, which he can with confidence recommend to their notice.

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[Critical Review, No. 1. Vol. xvi.]

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[Anti-Jacobin Review, Jan. 1811.]

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PART THE FIRST.

THE FAMILY DISPENSATORY.

FOR the basis of a FAMILY DISPENSATORY, the author has selected those Medicines which he judges most essentially necessary to furnish the Medicine Chest, and with which, from their great utility, one person at least in every village* ought to be provided. The advantages of such a provision are too numerous to be detailed, and too obvious to be denied. It affords an immediate resource in those sudden attacks of disease, and contingencies of misfortune, in which it is absolutely necessary relief should be *speedy* to be *effectual*. In cases of fits,

* Dr. Disney Alexander, in a "Dissertation on the Means of preserving Health," judiciously observes, "If clergymen who live in the country, and gentlemen who reside upon their own estates, would devote a small portion of their time to the study of medicine, it is incalculable how much good they might render to the poor families in their several neighbourhoods in this respect. The *timely* exhibition of a few doses of physic in the beginning of a disease, with a few plain directions concerning cleanliness, regimen, &c. would be no degradation to their character, and might frequently prevent the extension of those infectious fevers to which the lower classes of people are sometimes subject, and which, not unfrequently from neglect and inattention, prove fatal to the youngest, most robust, and most useful part of the community."---The tribute of applause is never more justly due, nor more honourably conferred, than when it is bestowed on those who exert their influence and employ their talents in lessening the sum of human misery; who sit by the side of affliction, promoting the recovery of health, and mitigating the anguish of disease.

suffocation, poisons, burns, scalds, &c. every medical man must acknowledge the good it may do, and the evil it may prevent.

Charity thus bestowed, in alleviating the sickness of the indigent individual, is, of all others, the most useful and commendable. What satisfaction can, indeed, be equal to mitigating the sufferings, and still more, in often being able to save the life, of a fellow-creature? To a heart glowing with the true spirit of Christian charity, can any thing possibly be so gratifying as to be enabled to restore the bloom of health to the wan and faded cheek of poverty and disease? Another point no less important is, that the Family Medicine Chest is supplied with drugs of superior quality to those generally sold in the country*, and on the purity of which the greatest reliance may be placed.

* Those who are acquainted with the nefarious practices of the wholesale dealers in drugs, by whom the retailers in the country are supplied, will admit the justness of this remark. To such a disgraceful pitch is this traffic now carried, that articles in powder are sold by wholesale druggists at one-third the price they are in substance!! Imitations of drugs, both in substance and powder, are sold, which do not contain a grain of the article of which they bear the name.

The new names of drugs adopted by the College of Physicians of London in the late Pharmacopœia, and the alterations they have made in the strength of the different preparations, have also been productive of the most serious mischief to the community. When the names of drugs become familiar to the public, this body consider it a sufficient reason for making a new Pharmacopœia; and the mere change of names is represented to the public as a most important improvement in medical SCIENCE!! In their Pharmacopœia of 1787, corrosive sublimate of mercury is termed muriate of mercury; and in their last Pharmacopœia, calomel is named sub-muriate of mercury. From the similarity of these names, corrosive sublimate has been frequently exhibited instead of calomel, through

Besides, a family possessing a collection of such medicines is not exposed to the serious mistakes which so frequently happen in the country, through the ignorance and carelessness of young men employed in the shops of druggists and apothecaries, by using arsenic, corrosive sublimate, &c. for articles which resemble them in appearance.

Various plans for a Family Medicine Chest have been recommended by medical writers. The chest termed the *Family Dispensary* is so constructed, that its contents may be arranged to correspond with the numerical references of the first part of this work; and the bot-

the ignorance of the compounder, or the haste of the prescriber; and the sudden deaths of the unfortunate patients attributed to the rupture of an internal blood-vessel!! Paregoric elixir, a very useful popular remedy, ignorance itself could not confound with laudanum; but now they are both tincture of opium; and only a third word, marked in general by a single initial, C, which in hasty or careless writing may be easily mistaken for a flourish of the pen, distinguishes a medicine of drops from one of a spoonful, and discriminates to the apothecary's boy the quieter of a cough from the quietus at once of cough and life. Under the old nomenclature no mistake could be well committed; but under the new one, let him who takes medicine tremble. What, indeed, with the new names, and the prevailing practice of adulterating drugs, medical aid is become a worse enemy than the disease it professes to combat; and the greatest of these evils invades us under the specious garb of improved science!! The lives of the members of the legislature, and those that are most dear to them, being thus involved, it becomes their immediate interest (putting the cause of humanity out of the question) to withdraw the indirect sanction they have given to these practices. In order to avoid the mischief that daily arises from those wanton innovations, every patient would do right to insist upon the physician or surgeon he may consult, making use of the old names, or writing his prescriptions in English. This request will put his knowledge of his profession to the test; for if he be a man of science he will readily comply with it.

bles, &c. proportioned to the utility and potency of the articles they are intended to contain; viz.*

Five Bottles in the Back Part, for

N ^o 1. Magnesia	N ^o 3. Castor Oil
2. Rochelle Salt, or	4. Tincture of Rhubarb
Epsom Salt, or	5. Opodeldoc
The Tasteless Purging Salt	

Five Bottles in the Front Part, for

6. Comp. Tinct. of Bark, or	9. Comp. Spirit of Lavender
7. Tinct. Ginger and Camo- mile	10. Mindererus's Spirit
8. Comp. Tinct. of Senna	11. Paregoric Elixir

Nine Bottles in the Right Wing, for

12. Spirit of Hartshorn	17. Tincture of Myrrh
13. Spirit of Sal Volatile	18. Diluted Vitriolic Acid
14. Vitriolic Æther	19. Tincture of Asafœtida
15. Sweet Spirit of Nitre	20. Volatile Tinct. of Guaiac Gum
16. Antimonial Wine	

Nine Bottles in the Left Wing, for

21. Salt of Wormwood	26. Rhubarb Powder
22. Crystall. Acid of Lemon	27. Jalap Powder
23. Ipecacuan Powder	28. Refined Camphire
24. Essential Salt of Bark, or	29. Comp. Cretaceous Powder
25. Salt of Steel	30. Extract of Lead

Nine small Bottles in a Drawer, for

31. Liquid Laudanum	36. Basilic Powder
32. Essence of Peppermint	37. Antimonial Powder
33. Essence of Cinnamon	38. Camph. Acetic Acid
34. Prepared Calomel	39. Smelling Salts
35. Emetic Tartar	

Six Pots in a Drawer, for

40. Blistering Plaster	44. Savin Ointment
41. Spermaceti Ointment	45. Squill Pill
42. Brown Cerate	46. Com. Colocynth Pill
43. Yellow Besilicon	47. Lenitive Electuary

* A description of different Medicine Chests is given in the last page of the first part of this work.

Six Drawers in the Front, with Partitions, for

48. Peruvian Bark, or Rhatany Root Powder	54. Cream of Tartar
49. Jamaica Ginger Powder	55. Flowers of Sulphur
50. Senna Leaves	56. Court Plaster
51. Flaky Manna	57. Lint and Plaster Skins
52. Gum Arabic Powder	58. Diachylon
53. Purified Nitre ditto	59. Ditto with Gum
	60. Prepared Natron

Two large Drawers on the Front, for

Pestle and Mortar	Funnel and Tyle
Graduated Ounce Measure	A Lavement Syringe with self Pipe
Ditto—Drop ditto	A Lavement Bag, with Pipe for Children
Scales and Weights	A small Male and Female Syringe
Spatula Bolus Knife	A Probang
A Pair of Scissars	A Tourniquet
Silver Spoon	

EXPLANATION OF WEIGHTS AND MEASURES.

20 Grains	make	1 Scruple	℞
3 Scruples - - - - -		1 Drachm	ʒ
8 Drachms - - - - -		1 Ounce	℥
12 Ounces - - - - -		1 Pound, or Pint.	℔

The small round impressions on the thin weights stand for so many grains.

The graduated measure is marked from half a drachm to an ounce, and the drop measure from one to thirty drops.

The doses specified throughout this work are for adults, which must be increased or diminished according to the strength and habit of the patient, and the age, by the Rules specified in the Catalogue of Drugs, in the Appendix.

It is customary to repeat the dose of an aperient medicine about every four hours till it operates, or to employ a lavement, which, if the costiveness prove obstinate, and particularly when attended with pain in the bowels, is preferable to a repetition of strong cathartic medicines.

By a teaspoonful, is meant one drachm—a tablespoonful, half an ounce—a wineglassful, two ounces—and a teacupful, three ounces, or a quarter of a pint. A drop is generally considered to weigh a grain, so that sixty drops are reckoned equal to a drachm, or teaspoonful; but, in all cases, the smallest doses should be measured, as drops greatly differ both in size and weight. Spoons likewise vary too much in size to be used as measures for the exhibition of potent medicines.

The following characters are also in general use:—

R (Recipe) Take

a. aa or ana, of each

ss. the half—as $\frac{3}{4}$ ss. half an ounce

Cong: (Congius) a gallon

Cochl. (Cochleare) a spoonful.

It may not be superfluous to observe here, that drugs are re-tailed in the quantities above a drachm by avoirdupois or grocers' weights, and from a drachm, lower, by the troy or apothecaries' weight. In the compounding of medicines, the troy weight is, or at least should be, always used. The avoirdupois or grocers' weights differ very much from the troy or apothecaries', and in consequence of grocers dealing in drugs, mistakes are often made in the *quantity* of the article. The grocers' pound contains sixteen ounces, and the ounce sixteen drachms. The pound also varies, for the grocers' pound contains 7000 grains, and the apothecaries' only 5760; hence the pound of the latter is less than that of the former by 1240 grains. But the apothecaries' ounce, on the other hand, is greater than the grocers' — the former containing 480 grains, and the latter $437\frac{1}{2}$ grains. The measure of liquids also differs, one being used for beer and the other for wine. In medicine the latter is employed.

No. 1. MAGNESIA.

This very useful absorbent earth is procured from the Epsom salt. It unites with the acid formed in the stomach in consequence of indigestion; and by neutralizing it speedily relieves the painful sensation, improperly termed *heartburn*, which is occasioned by the action of the acid on the internal coat of the stomach. On uniting with the stomach acid, it forms an aperient medicine which operates gently on the bowels. It is generally taken from fifteen grains to a teaspoonful, in a little peppermint-water; or, when that cannot be procured, with a grain or two of grated or powdered ginger in spring water.

The purgative effects of magnesia *entirely* depending on its meeting with an acidity, it frequently happens

that a small dose will operate more on the bowels than a large one, through there not being a sufficient quantity of acid present to dissolve it; and if there be no acidity in the stomach or intestines, it will not produce any sensible effect: little reliance can therefore be placed on it as a purgative, unless acidity evidently prevail.

When acidity is the consequence of debility of the digestive organs, which in adults is generally the case, the salutary effects of magnesia will be but temporary, unless combined with an aromatic bitter, as the tincture of ginger and camomile, No. 7, or aromatic tincture of rhatany root, which will prevent its recurrence by strengthening the organs of digestion. When the complaint is obstinate, or of long standing, the prepared natron will prove more efficacious, and, being perfectly soluble in water, is also more pleasant to take. (See Prepared Natron, No. 60, and Indigestion.)

For correcting acidity in the stomach of children, when attended with *costiveness*, magnesia, either alone or combined with a little rhubarb powder, is certainly the best remedy we are acquainted with; but when attended with *looseness*, or what nurses term *gripping stools*, the compound cretaceous powder, No. 29, will prove not less efficacious in neutralizing the acidity, and at the same time will restrain the violence of the purging; or, if the evacuations be not excessive, lime-water will answer best with a mild aromatic, as the absorbent mixture No. 73. (See Looseness of Children.)

The *calcined* magnesia has been preferred by some practitioners, on account of its not disengaging fixed

air in the stomach and intestines, on uniting with an acid, which air from the *common* magnesia is extricated in considerable quantity. Fixed air is, however, so very grateful to the stomach as often to remove nausea, and, so far from increasing flatulency in the intestines, will often correct and relieve it, the two gases being very different in their nature; but when the patient is much oppressed with air in the stomach, the calcined magnesia should be employed. (See Flatulency.)

Magnesia is frequently adulterated with chalk, which may be detected by putting a dessertspoonful of the suspected magnesia into an ounce of the diluted vitriolic acid, No. 18. If the magnesia be *entirely* dissolved, and the solution remain *clear*, it may be pronounced pure, but not otherwise. If the experiment be made with the common magnesia, there will be a considerable effervescence; but, with the calcined, there should be none.

The last new name for magnesia *not* calcined, is *Carbonate of Magnesia* (*Carbonas Magnesiae*), and the calcined is termed *Magnesia*.

No. 2. ROCHELLE SALT, EPSOM SALT, and TASTELESS PURGING SALT.

The *Rochelle salt* is less brackish than Glauber's or the Epsom salt. It is taken from an ounce to twelve drachms, dissolved in a quarter of a pint of water or cheese whey, the latter of which covers its ill taste, and promotes its purgative effects on the bowels.

The *Epsom salt*, although more unpleasant to the palate than the Rochelle, has the advantage of operat-

ing with more efficacy, and in general with such ease and safety (rarely occasioning griping pains or sickness), as to have induced many practitioners to suppose it possesses the power of allaying colicky pains, independently of its purgative effects. Six drachms of this salt are equal in strength to an ounce of the Rochelle. It may be taken, dissolved either in whey or common water—with the former, in the proportion of half an ounce to a quarter of a pint: it is by no means an unpleasant potion.

The *phosphate of soda*, commonly called *tasteless purging salts*, is less brackish than any of the aperient salts. In taste it is so similar to the common salt, that patients have taken it in broth and gruel without discovering the difference. As a purgative, it has no advantage over the Rochelle salt, and is less efficacious than the Epsom salt. It is taken in the same dose as the Rochelle salt.

These aperient salts, but more particularly the Epsom salt, in the dose of one or two drachms once or twice a day, are very excellent alterative medicines; and dissolved in water, in the proportion of an ounce or six drachms to a quart, form a purgative water not inferior to that obtained from the native springs. The solution of an ounce of the Epsom salt in a quart of pure soft water, is equal if not superior in every respect to that of the Cheltenham spa; and for those cutaneous eruptions and leprous affections of the skin, commonly but improperly termed land-scurvy, and piles, habitual costiveness, indigestion, flatulency, and many constitutional and local affections, I have frequently found it succeed after mercurial and other al-

teratives had failed. By the addition of two or three grains of salt of steel to the above solution, a *chalybeate aperient water* is formed, perhaps not less efficacious than the Bath, or any chalybeate spa in these kingdoms; and has this very important advantage, that the quantity of steel and aperient salt may be adapted to the *nature* of the disease, or *constitution* of the patient. This artificial chalybeate water has proved highly serviceable in cases of green sickness, the whites, palsy, worms, indigestion, flatulency, &c.; and for those stomach complaints affecting the lower class of people, it affords a very cheap and efficacious remedy. Should it, in such cases, prove too cold for the stomach, it may be taken warm, or with a little ginger powder or aromatic tincture. The quantity to be taken is from a wineglass to a teacupful every or every other morning, according to its aperient effects on the bowels.

By dissolving half a drachm of liver of sulphur, and an ounce of Rochelle salt, in a quart of pure soft water, a *sulphureous aperient water* is made, not inferior to that of the sulphureous spa at Harrowgate; and taken to the extent of a wineglassful once or twice a day, has proved very beneficial in chronic rheumatism, cutaneous affections, and piles.

By these means the different saline, chalybeate, and sulphureous waters may be prepared, to any degree of strength, and no doubt to possess the virtues of the natural springs; and being easily obtained without resorting to the watering-places, are more suited to those whose avocations or circumstances do not admit of their leaving their homes.

An aperient salt has been much advertised under the

name of "Cheltenham salt," or Chalybeate Aperient, which is not made from the Cheltenham water, and certainly possesses no advantage whatever over the Glauber's salt, and in many respects is inferior to the solution of the Epsom salt, noticed above.

The new name for the Rochelle salt is *Tartarized Soda* (*Soda Tartarizata*); for the Epsom salt, *Sulphate of Magnesiā* (*Sulphas Magnesiae*); and the tasteless purging salts, *Phosphate of Soda* (*Phosphas Sodæ*).

No. 3. CASTOR OIL.

The oil of the Castor seeds (*palma christi*), from one to two large tablespoonfuls, is a valuable purgative medicine in cases of spasmodic colic, habitual costiveness, and piles. It may be taken conveniently with a little peppermint-water (swallowed off as it floats on the top). The addition of a tablespoonful of the compound tincture of senna will render it less nauseous, and at the same time quicken its operation. If this mode of exhibiting it be objected to by the patient, an emulsion may be made by rubbing the castor oil with about the fourth part of the yolk of an egg, in a mortar; and, when well blended, to add very *gradually* an ounce of peppermint-water, and lastly some sugar.

The oil expressed from the castor seeds in this climate is less nauseous than that prepared in the East or West Indies. It is, however, at best, an unpleasant medicine, and as a *mild* purgative is much over-rated.

The English expressed castor oil may be known by being pale and transparent.

No. 4. TINCTURE OF RHUBARB.

This tincture is strongly impregnated with the virtues of Rhubarb and Cardamom seeds. In the quantity of half an ounce to an ounce, diluted with an equal quantity of water, it affords an excellent *warm* purgative draught for colicky and flatulent affections of the bowels. In weakness and laxity of the stomach and intestines, attended with a sluggish state of the viscera (frequent causes of indigestion and flatulence), this tincture may be advantageously taken, in conjunction with essential salt of bark, as directed for the stomachic mixture, No. 61; and when accompanied with heart-burn or vomiting of acid matter, the prepared natron, No. 60, will prove an useful addition. On account of the stimulating nature of the spirit and cardamom seeds, it should not be *indiscriminately* administered in every case of pains in the bowels, or at least in such quantity as to operate as a purgative, but employed more as a *warm* stomachic medicine, in the quantity of two or three teaspoonfuls in a little mint water, to which a little rhubarb or jalap powder may be added when the bowels require to be emptied.

No. 5. OPODELDOC.

This liniment, composed of soap, oil of rosemary, and rectified spirit, is a very useful external application for sprains, bruises, chilblains, and for dispersing inflammatory tumours; but in cases of *indolent* tumours, *deep seated* or rheumatic pains, paralytic numbness, and enlargement of joints, it will be adviseable to render it more stimulating by adding half an ounce of spirit of hartshorn to two ounces, as in such cases we

cannot expect any benefit unless a considerable irritation of the skin be produced. In such cases the volatile liniment, No. 103, is generally more successful.

When the part is inflamed, or the surface very tender, the diluted Mindererus's Spirit, No. 10, or Lotion of Extract of Lead, No. 30, is preferable, as the friction employed in the application of Opodeldoc will aggravate the mischief.

The new name for Opodeldoc is *Soap Liniment* (*Linimentum Saponis*).

No. 6. COMPOUND TINCTURE OF BARK.

This tincture, impregnated with the virtues of the Peruvian bark, snake root, and the Seville orange peel, first introduced in practice by Dr. Huxham, may be taken to the extent of a tablespoonful, diluted with double the quantity of pure water, three times a day, in cases of indigestion and general languor of the system: to which the diluted vitriolic acid, No. 18, in the quantity of twelve drops, may be added, if the patient be affected with flatulency or profuse perspirations; but, when acidity prevails in the stomach, the addition of prepared natron, No. 60, will be more beneficial. (See Tonic Mixture, No. 77.)

A solution of the essential salt of bark in Sherry or Port wine, as directed No. 24, possesses the virtues of the bark in an equal degree of perfection, and at the same time is exempt from the pernicious effects of the ardent spirit* with which the Compound and Simple Tincture of Bark are made.

* Many persons, no doubt, have to date their first propensity to dram drinking to the too frequent use of spirituous

Before we employ *cordial* stomachic medicines, with the view to strengthen the system, it will be necessary to consider well whether the debility is the consequence of any local mischief, as the liver, the stomach, the lungs, &c. which the *cordial* effects of the medicine would aggravate.—When cordial medicines are employed, it will always be proper to attend to the state of the bowels, as they are very apt to occasion costiveness (see Indigestion).—The new name for this tincture is *Compound Tincture of Cinchona* (*Tinctura Cinchonæ Composita.*)

No. 7. TINCTURE of GINGER and CAMOMILE.

This tincture, containing the aromatic virtues of the ginger-root, and the essential oil and bitter quality of the camomile flower, affords a most valuable stomachic medicine; and in cases of indigestion, flatulency, laxity of the bowels, dropsy, and complaints arising from debility of the digestive organs, it has often succeeded after the Peruvian bark had failed.

From thirty to forty drops of this tincture may be taken two or three times a day, in half a wineglass of water. In languid gouty habits and obstinate cases of indigestion, arising from the too free use of spirituous liquors, or old age, the dose may be increased to a teaspoonful and upwards.

When indigestion is attended with much nausea and acidity, an emetic should precede the use of this and any other stomachic medicine; and if attended with

tinctures, rashly prescribed for hysterical complaints, lowness of spirits, flatulency, &c.

costiveness, this tincture may be advantageously taken in the solution of Epsom salt, as recommended under the head of Epsom Salt, No. 2: but for nervous irritability and hypochondriacal affections, an infusion of rosemary, sage, or valerian root, is the best vehicle.

When indigestion or weakness of the system is accompanied with looseness or increased irritability of the bowels, the aromatic tincture of the rhatany root is preferable to this tincture.

No. 8. COMPOUND TINCTURE OF SENNA.

This tincture, containing the medicinal properties of senna leaves, jalap, and coriander seeds, is a very pleasant warm aperient medicine, and in the quantity of a small wineglassful, taken alone, or diluted with water, generally affords relief in colicky and flatulent complaints of the bowels; and often succeeds better than tincture of rhubarb, or any other warm purgative medicine.

The tincture of senna, sweetened and coloured with treacle, is sold under the name of *Daffy's Elixir*.

No. 9. COMPOUND SPIRIT OF LAVENDER.

This tincture, first sold under the name of Palsy Drops, is impregnated with the virtues of lavender and rosemary flowers, nutmeg, and cinnamon. It is a pleasant and efficacious cordial, and in the dose of forty to eighty drops on a piece of sugar, or in a glass of water or wine, is deservedly much employed in cases of languor, weakness of the nerves, decay of age, lowness of spirits, and fainting fits. (See Nervous Mixture, No. 72.)

In the practice of medicine, it is chiefly employed to cover the ill flavour of nauseous drugs, and to colour mixtures.

No. 10. MINDERERUS'S SPIRIT.

This saline medicine (made by neutralizing distilled vinegar with the volatile salt of ammonia), taken to the extent of half an ounce, two or three times a day, in a glass of mint tea, promotes perspiration, allays fever, and abates thirst. In inflammatory fevers, and acute rheumatism, or in cases where the object of practice is to quiet the system, and to increase perspiration (which after much corporeal exertion is highly beneficial), this is unquestionably a very valuable medicine, and more safe than Dover's powder, which, on failing to excite perspiration, always increases fever.

In cases where the immediate operation of a sudorific medicine is of importance, it would not be proper to trust to Mindererus's spirit alone, but employ it with the view of keeping up the effects of a more active medicine. (See Antimonial Febrifuge Power, No. 37.)

In acute rheumatism, twenty drops of antimonial wine, No. 16, and ten of laudanum, No. 31, may be added to the night dose of Mindererus's spirit with advantage; or if any objection be made to laudanum, three tablespoonfuls of camphorated julep may be employed in lieu of it and the mint tea. (See Sudorific Mixture, No. 63.)

The new name for this medicine is *Solution of Acetate of Ammonia* (*Liquor Ammonice Acetatis*).

No. 11. PAREGORIC ELIXIR.

This elixir is a solution of opium, camphor, flowers of

benzoin, and oil of anniseeds in proof spirit. Taken in the dose of a teaspoonful in a glass of water, two or three times a-day, it powerfully allays that tickling sensation in the windpipe, which provokes frequent coughing. In spasmodic asthma, and *chronic* difficulty of breathing, taken with the oxymel of squills, it gives very considerable relief, by facilitating expectoration, and allaying irritation of the lungs. (See Asthmatic Mixture, No. 68.)

If the patient be of a full habit of body, or disposed to inflammatory attacks, or if the cough be preceded or attended with rigours, head-ach, fever, or be evidently the effect of cold, paregoric elixir is not a proper remedy; for if it should not promote perspiration — an effect we are not to expect from it — it will assuredly be the means of producing much mischief, although it may succeed for a short time in allaying the cough. Pleurisy and consumption of the lungs too frequently follow the injudicious exhibition of this medicine. In coughs of a doubtful nature it will therefore always be advisable to give paregoric elixir with a medicine that will occasion a determination to the skin, as Mindererus's spirit, or two grains of ipecacuan powder. (See Cough.)

Half an ounce of this elixir contains a grain of opium.

In the last Pharmacopœia, the oil of anniseeds is omitted in the recipe for this elixir, which, in chronic cough and asthmatic difficulty of breathing, is the most valuable ingredient.

The new name, *Compound Tincture of Camphor* (*Tinct. Camphoræ Comp.*)

No. 12. SPIRIT OF HARTSHORN.

This volatile liquor, taken from twenty to thirty drops in a glass of water, often affords immediate relief in cases of lowness of spirits, fainting, and hysteric fits. It may likewise, in such cases, be rubbed over the temples, and applied to the nostrils. The same quantity of the compound spirit of lavender will render it more grateful to the palate and acceptable to the stomach, and, at the same time, promote its cordial powers.

Equal parts of spirit of hartshorn and olive-oil form an excellent stimulating liniment for paralytic numbness, chronic rheumatism, diseased joints, and inflammatory sore-throat. (See Volatile Liniment, No. 103.)

The spirit of hartshorn is frequently mixed with the water of ammonia, by unprincipled druggists, to increase its pungency, and to enable it to bear an addition of water. This fraud is detected by adding highly rectified spirit of wine to the suspected spirit; if no considerable coagulation ensue, the adulteration is proved.

The new name for Spirit of Hartshorn is, *Volatile Liquor of Hartshorn* (*Liquor Volatilis Cornu Cervi*).

No. 13. SP. SAL VOLATILE.

This volatile aromatic spirit is taken in the same manner, and for the same purposes, as the spirit of hartshorn. It is more pleasant to the palate, and a more powerful stimulant, than spirit of hartshorn, on account of its being impregnated with the essential oil of cloves and lemon peel. A teaspoonful of this spirit, with the

same quantity of compound spirit of lavender, taken in a teacupful of horse-raddish and mustard-seed tea, three times a day, has been attended with great advantage in gouty affections of the stomach, paralytic numbness of the extremities, and flatulent complaints of long standing. (See Stimulating Mixture, No. 74.)

It will likewise prove a valuable addition to the tincture of the essential salt of bark, made with sherry or Port wine, as directed, No. 24, in debility of the stomach and nervous system. (See Nervous Mixture, No. 72.)

The new name for this spirit is *Aromatic Spirit of Ammonia* (*Spiritus Ammonice Aromaticus*).

No. 14. VITRIOLIC ÆTHER.

This ethereal spirit, in the quantity of a teaspoonful in a glass of peppermint or pure water, often affords immediate relief in spasmodic colic, cramp of the stomach, and asthmatic, hysterical, and fainting fits. A small dessertspoonful in a wineglass of camphorated julep, Dr. Lind and other practitioners assert to be an admirable remedy when the gout attacks the stomach. It often gives ease in the most violent head-ach, by being applied externally to the part, and relieves the tooth-ach by being laid on the afflicted tooth and jaw by means of lint.

The *external* use of this remedy is capable of producing two very *opposite* effects, according to the *mode* of application; for if its evaporation be prevented by covering the place to which it is applied with the hand, it will so powerfully stimulate the skin, as to excite a sensation of heat and great redness. On the contrary,

if the part of the body to which it is applied be *exposed* to the air, its rapid evaporation will produce an intense degree of cold, and in this manner it has proved more beneficial in *acute* pains, particularly when attended with increased heat.

Æther should be always taken in a *cold* vehicle, and swallowed as quickly as possible; and the bottle in which it is kept should be well corked, and kept in a cold place, inverted in water to prevent its escape.— (See Antispasmodic Mixture, No. 70.)

The once celebrated anodyne liquor of Hoffman, and Clutton's febrifuge spirit, are a weak æther.

Good æther should not redden the colour of litmus, or produce a precipitation with a solution of barytes.

The new name of Æther is *Sulphuric Æther* (*Æther Sulphuricus*).

No. 15. SWEET SPIRIT OF NITRE.

This preparation of nitre, in the dose of twenty to thirty drops in a little water, allays fever, quenches thirst, promotes the secretion of urine, moderately strengthens the stomach, and resists putrefaction; hence it becomes a valuable medicine in the first stage of low nervous fevers. It may be given with a small dessertspoonful of the Mindererus spirit, No. 10, every three or four hours. Being also a cordial, it is not a proper medicine in acute inflammatory fevers, or fevers arising from accidents, or attendant on local inflammation. It is also an useful remedy for stoppage of urine, and for gravel, in which cases it may be administered from thirty to forty drops, three times a day, in either the almond emulsion, decoction

of marshmallow root, or linseed tea. A teaspoonful of a mixture of equal parts of sweet spirit of nitre and spirit of sal volatile, taken twice a day, in two tablespoonfuls of water, or, if the patient be much debilitated, in the decoction of rhatany root (see Rhatany Root), will increase the secretion of urine in dropsical complaints, and at the same time strengthen the constitution.

Sweet spirit of nitre, if properly made, will not effervesce with an alkali, or give a blue colour to tincture of guaiac gum. By age or exposure to the air, it is so far decomposed as to possess very opposite properties; it should therefore be kept in the same manner as directed for æther.

The new name for Sweet Spirit of Nitre is *Spirit of Nitric Æther* (*Spiritus Ætheris Nitrici*).

No. 16. TARTARISED ANTIMONY WINE.

This solution of emetic tartar in white wine is more certain in its operation than the common antimonial wine. In inflammatory affections of the chest, and recent coughs from obstructed perspiration, administered in a mucilaginous vehicle (see Cough Mixture, No. 66), it relieves respiration, promotes expectoration, and abates fever, by producing a determination to the skin, and quieting the circulation.

For the purpose of exciting full vomiting, it should be given to the extent of a dessertspoonful; which, by also operating on the bowels, and producing perspiration, will often check the progress of inflammatory fever, especially when administered on its commencement.

In sciatica and inflammatory rheumatism, antimonial wine, in the dose of thirty drops, with fifteen of laudanum, No. 31, in a glass of mint-water, taken every night at bed-time, was a very favourite remedy with the late Dr. Fothergill, and certainly deserves the high commendation given it by that esteemed author.

Like all other antimonial preparations, it must be regarded as an active remedy, and should not be *indiscriminately* prescribed in *all* fevers; for although it has, under proper management, been productive of much good, in fevers *strictly inflammatory*, it has, on the other hand, as frequently done irreparable mischief, from being administered in low nervous fevers, and *putrid* ulcerated sore-throats, by occasioning such great evacuations as to hurry the patients to their graves in a short time. In domestic medicine it should not, therefore, be employed in fevers of an *ambiguous* nature, without the sanction of an experienced practitioner. In fevers of a doubtful nature, it will be more advisable to employ ipecacuan powder, which will answer equally well as an emetic, without reducing the strength of the patient; and for the purpose of exciting and keeping up perspiration, and quieting febrile action, Mindererus's spirit, and camphorated julep, will answer as well as the antimonial preparations in exciting perspiration, and may be employed with safety and effect in those autumnal inflammatory fevers, which frequently, and often suddenly, exhibit symptoms of great debility.

In obstinate eruptions of the skin, tartarised antimony wine, in small doses of eight or ten drops three times a day, in a teacupful of the decoction of the

inner bark of the elm-tree*, is a good alterative medicine, and often succeeds in obstinate leprous affections or scorbutic eruptions, after other alterative medicines have proved ineffectual.

The new name for this wine is *Solution of Tartarised Antimony* (*Liquor Antimonii Tartarizata*).

No. 17. TINCTURE OF MYRRH.

This solution of gum myrrh in proof spirit is chiefly employed as a lotion for the teeth and gums; and in those constitutional caries, or decays of the teeth, which commence with black specks, or superficial holes in the enamel, it may check their progress, but it can have little or no effect in removing tartareous encrustations. When the gums are spongy and tender, this tincture, from its stimulating quality, is very improper. In such cases an astringent application, as the simple tincture of rhatany root, by constringing the vessels, will prove very beneficial. (See Levigated Charcoal, and Tooth-ach.)

Myrrh has been much esteemed as a *warm* strengthener of the stomach and bowels, and as such is said to have proved serviceable in languid cases, and particularly those female disorders that proceed from languor or debility of the system. A teaspoonful of the tincture may be taken twice a day, in a glass of cold camomile tea, or, as recommended by Dr. Lind, with half a drachm of Peruvian bark powder, in a glass of peppermint-water. But the best method of administering

* This decoction is made by boiling an ounce of the *inner* rind of the elm bark in a pint and a half of water, to a pint.

myrrh in cases of green sickness, is in the form of pills, combined with steel, gentian, and aloes, as the ecphratic pill of the Edinburgh Pharmacopœia, ten grains of which, divided into two pills, may be taken twice a day. (See Green Sickness.)

Both tincture of myrrh, and the compound tincture of benzoin, commonly called Friar's Balsam, are improper applications for recent cuts; the stimulating gums of which they are made exciting a degree of inflammation, which prevents the union of the sides of the wound, and thus occasions ulceration. (See Cuts and Bruises.)

In cases of *putrid* sore-throat and the thrush, tincture of myrrh, with the diluted vitriolic acid, and an infusion of roses, form an excellent detergent gargle. (See Detergent Gargle, No. 95.)

No. 18. DILUTED VITRIOLIC ACID.

This medicine, in the dose of ten to fifteen drops twice a day, in a wineglass of water *, is a valuable medicine in weakness and relaxation of the stomach, and decay of constitution, particularly when occasioned by the abuse of spirituous liquors, and will often succeed after the Peruvian bark and other tonic medicines have been exhibited without effect. It is likewise an excellent remedy for restraining the profuse nocturnal perspirations attendant on hectic fevers, and relaxed habits.

In cases of indigestion this medicine is supposed to

* In elderly people, or when the stomach is much oppressed with air, an infusion of ginger is the best vehicle.

prove beneficial, by preventing fermentation of vegetable matter, and the consequent formation of an acid and disengagement of air. (See Indigestion.)

The diluted vitriolic acid has also been much extolled as a remedy for vomiting, but in those cases the supercarbonated kali in general answers best. (See Salt of Wormwood.)

For redundancy of bile in the stomach or intestines, this medicine will chemically prove more serviceable than calomel, or the drastic purges commonly employed for its evacuation, and will, at the same time, tend to remove the cause, by strengthening the digestive organs, which the frequent use of strong purgative medicines will ultimately impair. (See Bilious Affections.)

The diluted vitriolic acid, with an infusion of rose leaves, makes an excellent gargle for inflammation of the throat, and relaxation of the soft palate. (See Acidulated Gargle, No. 93.)

This acid has the property of covering in a considerable degree the bitter taste of the Peruvian bark and other drugs. The quantity of fifteen drops to a pint of the solution of Epsom salt, recommended No. 2. renders it more agreeable to the palate, and more efficacious as an alterative medicine in diseases of the skin.

It does not differ in its medicinal virtues from the acid elixir of vitriol.

The new name for the diluted vitriolic acid, is *Diluted Sulphuric Acid* (*Acidum Sulphuricum Dilutum*).

No. 19. TINCTURE OF ASAFÆTIDA.

This strong solution of asafætida gum in proof

spirit, is, in the quantity of thirty to fifty drops, in a glass of pennyroyal or peppermint water, much and successfully employed as a remedy for lowness of spirits, hysteric (see Antibhysteric Mixture, No. 65) and fainting fits; different nervous complaints, spasmodic colic (see Antispasmodic Mixture, No. 70), and asthma (see Asthmatic Mixture, No. 68). The addition of ten drops of sal volatile to each dose will render it more pleasant to the palate, and at the same time coincides with its virtues.

A mixture of one-third of tincture of asafœtida, and two of paregoric elixir, taken in the dose of a teaspoonful, has been found particularly serviceable in relieving asthma in languid constitutions, and chronic difficulty of breathing, by expelling air from the stomach, promoting expectoration, and allaying irritation: (see Asthma). In the whooping-cough, unattended with fever, it will prove equally beneficial, in doses proportioned to the age of the patient, viz. to a child of two years old, six drops, increasing two drops for every year.

No. 20. VOLATILE TINCTURE OF GUAIAAC GUM.

This solution of the guaiac gum in the compound spirit of ammonia, in the quantity of one to two teaspoonfuls, is a popular and very efficacious remedy for *chronic* rheumatism, gout of the stomach, and partial paralytic numbnesses. It may be taken with the camphorated julep, in the proportion as recommended for the anti-rheumatic mixture (No. 71), or in case of being attended with debility of the system, with the bark mixture (see No. 24). The part affected with rheuma-

tism or palsy should also be well rubbed with volatile liniment, or stimulated with electric sparks, and kept warm by means of flannel. When rheumatism is attended with fever, this tincture, in consequence of its stimulating quality, is not proper; and if it should not in such case promote perspiration, it will aggravate the complaint, by increasing the feverish state of the system.

The last new name for this tincture is Ammoniated Tincture of Guaiac Gum (*Tinct. Guaiac. Ammon.*)

No. 21. SALT OF WORMWOOD.

This alkaline salt is chiefly used for making the saline mixture with the juice of the lemon. (See No. 78.) It is sometimes prescribed alone, in doses of six or ten grains, dissolved in mint-water, for correcting acidity in the stomach, and for increasing the secretion of urine. It is the basis of the alkaline mephitic water, which is made by dissolving two ounces and a half in five quarts of distilled water, and afterwards saturating it with fixed air, by Nooth's or Parker's apparatus. This water, to the extent of half a pint two or three times a day, has proved highly beneficial in the stone in the bladder and gravel. If in this quantity it should prove too cold, or produce unpleasant distension of the stomach, two teaspoonfuls of the spirit of juniper, commonly called hollands, or a little brandy, may be taken with it; or if it should nauseate the stomach, a teaspoonful of paregoric elixir may be taken with it, or a quarter of an hour before it. The aërated soda-water, being pleasanter to the palate, and in calculous complaints probably more efficacious, is now more generally employed. (See Prepared Natron, No. 60.)

A solution of salt of wormwood in peppermint-water, in the proportion of two drachms of the former to two ounces of the latter, is much recommended by Dr. Rosenstein as a remedy for rickets, in the dose of twenty or twenty-five drops twice a day to a child of four years old to eight, in a little milk or whey. In the same manner it has been found beneficial in convulsive fits of infants, as appears by several late communications by practitioners of celebrity in the Monthly Compendium of Medicine. Its salutary effects in the complaints of children, no doubt are produced by neutralizing acid matter. In rickets, lime is a more valuable remedy, as it not only corrects acidity, but strengthens the organs of digestion. (See Rickets, and Lime-water.)

Salt of wormwood is rendered more pleasant to the palate, and in many respects improved as a medicine, by being saturated with fixed air. This preparation is preferred for making the saline draughts, when they are directed to be taken in a state of effervescence, and for making the mephitic alkaline water. It has also been found to succeed in the quantity of five grains, dissolved in an ounce of peppermint-water, taken every two hours, in allaying vomiting, after other medicines had failed.

Salt of wormwood is a powerful agent in counteracting the fatal effects of mineral poisons taken into the stomach. (See Treatment of Mineral Poisons.)

The alkaline salt procured from wormwood, differing in no respect from that of other vegetables, the term salt of wormwood is no longer employed by professional men.

The last new name is *Subcarbonate of Potash* (*Subcarbonas Potassæ*); and for the salt, saturated with fixed air, *Carbonate of Potash* (*Potassæ Carbonas*).

No. 22. CRYSTALLIZED ACID OF LEMON.

This preparation affords a good substitute for the juice of the lemon when it cannot be obtained fresh, which oftens happens in long voyages and journeys. A drachm of this acid is equivalent to an ounce and a half of the recent juice. Equal quantities of the crystallized acid of lemon and salt of wormwood, about a drachm of each, dissolved in half a pint of water, with six drops of essence of peppermint, and a little sugar, readily make the saline mixture, so much employed in inflammatory fevers. Where the skin is parched with great febrile heat, this mixture generally operates as a gentle sudorific, cools the body, allays thirst, increases the secretion of urine, and operates slightly on the bowels; but, to produce these effects, it should be given in a much greater quantity than is usually prescribed: indeed, it is better calculated as a beverage than a medicine; for such is its weakness, that unless it be taken to the extent of nearly a quart in the space of twenty-four hours, it cannot be expected to produce any salutary effect of consequence. The saline mixture, both in putrid and inflammatory fevers, succeeds better when given in the act of effervescence, which is done by dissolving a scruple of salt of wormwood in an ounce of mint-water, and mixing with it, at the moment of taking, a tablespoonful of lemon-juce, sweetened with sugar, or a scruple of the crystallized acid of lemon, previously dissolved in an

ounce of common water; the effervescence with the lemon-juice, being more gradual, answers in this case much better than the salt, the fixed air in the latter being disengaged too suddenly for a sufficient portion to be swallowed, through being deprived of its mucilage in the process of crystallization: but when the recent juice cannot be readily procured, this inconvenience may be obviated, by dissolving in the acid a little white sugar; or the effervescence may be made to take place in the stomach, by first taking the solution of the salt of wormwood, and afterwards the lemon-juice, or solution of the crystallized acid, in the above proportions; in either way, a much less quantity is necessary than of the saline mixture. The effervescence with the salt of wormwood, saturated with fixed air (carbonate of potash), being considerably greater than with common salt of wormwood, it should, in all cases of fever, be preferred.

The saline draught, in a state of effervescence, is a good preventive medicine against the infection of contagious fevers, and may be employed as an auxiliary to the nitrous fumigation. (See the Means of destroying Contagious Effluvia.)

The last new name for this preparation of lemon-juice, is *Citric Acid* (*Acidum Citricum*).

No. 23. IPECACUAN POWDER.

This powder is a very safe, and in general an efficacious emetic, and possesses the advantage of operating as an aperient medicine, without distressing the patient, when it fails properly to excite vomiting. It is, therefore, deservedly employed in almost every disease,

in which full vomiting is required. It is given from one scruple to twenty-five grains, mixed with a little water, or with the emetic tartar, in the proportion of the emetic powder, No. 88.

In the small dose of one or three grains, ipecacuan powder furnishes an useful, active, and, at the same time, innocent sweating medicine* as any we possess (see Sudorific Mixture, No. 63), and proves highly serviceable, combined with a quarter of a grain of opium, or five drops of laudanum, every two or three hours, in dysentery, obstinate purgings, asthma, and hooping-cough. The emetic dose of twenty-five grains, with a teaspoonful of tincture of asafoetida, taken in a little peppermint-water at bed-time, has proved very beneficial in shortening, and sometimes preventing, the paroxysm of spasmodic asthma.

Ipecacuan powder, in the quantity of three grains twice a day, in a little peppermint-water, has been found very efficacious in spitting of blood and excessive flooding, by Dr. Stoll, of Vienna; and ample experience in this country has proved it to be a safe and efficacious remedy in these cases; for when it has provoked vomiting, the complaints have rather been relieved than aggravated by it. In the smaller dose of one or two grains every four hours, it produces a

* The celebrated sweating powder of Dr. Dover is composed of one part of ipecacuan powder, one of opium powder, and eight of vitriolated kali, commonly called sal polychrest. From ten to twenty grains may be taken in any convenient vehicle in rheumatic affections. The patient should lie between the blankets or in a flannel shirt, and take, as soon as he begins to perspire, some warm liquid, in small portions, frequently; such as thin gruel, bohea-tea, or weak white-wine whey.

considerable determination to the skin, and promotes expectoration : hence it is a most valuable medicine in pleurisy, inflammatory affections of the lungs, recent coughs from obstructed perspiration, and the first stages of pulmonary consumption. (See Cough Mixture, No. 66.)

It has likewise the property of diminishing the soporific effects of opium and other vegetable poisons, and hence is recommended as a powerful auxiliary to the emetic tartar (see Emetic Powder, No. 88), for the purpose of exciting vomiting when too great a quantity of a vegetable poison has been taken into the stomach. (See Treatment of Poisons.)

No. 24. ESSENTIAL SALT OF BARK.

This preparation contains, in a concentrated state, the volatile and active properties of the Peruvian bark, in a high degree of perfection, and answers every purpose of the powder, without producing nausea, vomiting, or purging, which are frequently excited by the powder and decoction.

Ten grains of the essential salt are equal to a drachm of the bark in substance. It is much more pleasant to the palate and stomach, and may, with equal advantage, be employed where the use of a strengthening medicine is indicated. In intermittent and remittent fevers, ten grains may be taken every two hours, either in the form of pills, or dissolved in an ounce of camphorated julep, as recommended for the camphorated bark mixture, No. 67 ; but for low fevers, putrid sore-throat, and mortifications, red Port wine is a better vehicle ; with which, in the proportion of three drachms

to a quart, it makes an elegant tincture, possessing all the active properties of the Peruvian bark, and at the same time free from the pernicious effects of the ardent spirit of wine, with which the different simple and compound tinctures are made.

This valuable preparation of the Peruvian bark was first made in France, by the Count de Garraye, and prescribed in this country by Dr. James Carmichael Smyth, who, from repeated trials, now gives it a decided preference. Apothecaries in the country, unacquainted with the preparation, and some, perhaps, from sordid motives, have, in compounding prescriptions, substituted for it the common extract, which is a different article, and does not contain the resinous and volatile parts of the bark.

No. 25. SALT OF STEEL.

This preparation of iron has been long held in high estimation as a great strengthener of the stomach and bowels, and, at the same time, by increasing the red globules of the blood, affords a valuable remedy for dropsical complaints, green sickness, and other diseases of debility, attended with poverty of blood.

From its poisonous effects on white-blooded animals, it proves a very powerful and safe vermifuge, taken in the dose of five grains (dissolved in a glass of water), when the stomach is most empty.

Iron is recommended by Mr. Carmichael, an eminent surgeon in Dublin, as a remedy for cancer. This ingenious author, supposing that iron is held in solution in the blood by the *phosphoric* acid, recommends the saline preparations to be made with this acid, in order

that it may sooner, and in greater quantity, enter the circulation. The preparations he has found most successful, are—the oxyphosphate, the sub-oxyphosphate, and phosphate of iron. (See Cancer.)

The salt of steel readily dissolves in water, and, in the proportion of a grain to a pint, affords a good substitute for the native chalybeate waters. (See Epsom Salt, No. 2.) Thirty grains dissolved in a quart of sherry wine, make a very excellent chalybeate wine, of which a small wineglassful may be taken two or three times a day.

In cases of green sickness and irregularity of the menstrual evacuation, it has been found to answer best when combined with aloes, a form for which is given among the remedies recommended for green sickness.

In cases of dropsy, whites, and gleet, the extract of rhatany root will prove a very powerful auxiliary in the following proportions:

Take of salt of steel, ten grains; extract of rhatany root, one drachm; socotrine aloes, twenty grains; oil of caraway-seeds, ten drops; with simple syrup, make into twenty pills, two to be taken twice a day.

When the countenance is florid, and the patient of a plethoric habit, steel is improper even in cases of suppression or retention of the menses.

The last new name for Salt of Steel is *Sulphate of Iron* (*Ferri Sulphas*).

No. 26. RHUBARB POWDER.

Rhubarb has long been held in high estimation as a mild and efficacious aperient medicine; and, on ac-

count of its operating with less violence or irritation than any other aperient medicine, is generally employed with pregnant women and children. Besides its purgative quality, it is celebrated for an astringency, which strengthens the tone of the stomach and intestines, and hence proves useful in disorders arising from laxity of the fibres, particularly when attended with a sluggish state of the bowels. The purgative dose is from one to two scruples in a little peppermint-water, to which ten grains of calcined magnesia may be added when acidity prevails in the stomach. A powder composed of six parts of rhubarb, one of calomel, and a little ginger powder, is an efficacious remedy for worms, and a good purge for dropsical and bilious complaints, or when the bowels are loaded with slime. Half a drachm of this compound powder may be taken for a dose; and for the purpose of suspending the calomel, it should be taken in a thick vehicle, as honey, or jelly, or made into pills with a little syrup, as the Bilious Pills, No. 83.

A mixture of fifteen grains of rhubarb, a scruple of calcined magnesia, a drachm of white syrup of poppies, two drachms of compound tincture of cardamom seeds, and two ounces of dill-water, in the dose of a teaspoonful, will prove very beneficial in removing many disorders children are subject to, from a redundancy of acidity in the stomach and intestines, and is more safe and efficacious than the advertised carminatives, which, by occasioning costiveness, not unfrequently produce considerable mischief. (See Absorbent Mixture, 73.)

Rhubarb is not only rendered more aperient by a small addition of sal polychrest, but its secondary

constipating effects are in some degree obviated by it. Dr. Hugh Smyth and Dr. Warren were very partial to this latter combination, as a stomachic medicine, in the small dose of five grains of rhubarb, and six grains of sal polychrest, in peppermint-water, about twice a day. In larger doses it is very apt to occasion griping pains.

In diseases attended with extreme debility of the system, where it is necessary to relieve the bowels, rhubarb, on account of its possessing a tonic power, may be administered with safety and effect, when no other medicine could with safety be employed.

The Russian rhubarb is evidently very superior to that imported from the East Indies, both as a stomachic and aperient; it is sold under the name of Turkey Rhubarb.

No. 27. JALAP POWDER,

In the dose of twenty to twenty-five grains, with two of ginger—or twenty grains mixed with two drachms of compound tincture of senna, and an ounce of mint-water—is a very pleasant, safe, and effectual purgative medicine; and generally performs its office without occasioning nausea or much griping. In cases of dropsy of the extremities or belly, four grains of calomel, to fifteen or twenty grains of jalap, with two or three drops of essence of peppermint, will prove very beneficial both as a purgative and diuretic. For those complaints, this medicine should be repeated three times a week, and the tonic mixture, No. 77, taken in the intermediate times.

For delicate constitutions, half the dose of jalap

powder, and as much powder of rhubarb, with three drops of essence of mint, are preferable to jalap alone.

The operation of jalap and rhubarb may be promoted by taking after them a weak solution of the neutral purgative salts. (See No. 2.)

It is a curious fact, that in hypochondriacal patients, jalap manifests little or no effect as a cathartic, but occasions severe griping; and on the bowels of quadrupeds it is said to produce no sensible effect whatever.

No. 28. CAMPHOR.

This peculiar concrete gum is very generally employed in fevers, both of the inflammatory and malignant kind; in spasmodic affections, morbid irritability of the nervous system, and often in fluxes.

The common and best method of exhibiting camphor, is by suspending it in water with gum arabic and sugar, as the *Camphorated Julep*, which is made in the following manner:

Take of camphor, twenty grains; spirit of wine, twenty drops; white sugar and gum arabic, of each two drachms. Rub the camphor first with the spirit of wine, then with the sugar, and, when reduced to a fine powder, add the gum arabic powder, and when well mixed, pour on them, very gradually, a pint of boiling water (continuing the rubbing till the whole of the water is poured on); then cover it over, and, when cold, strain it through fine linen for use.

A mixture of six ounces of this julep, and two ounces of Mindererus's spirit, taken in the dose of three tablespoonfuls every three or four hours, is a safe and good sudorific medicine in inflammatory and febrile affections. In fevers, strictly inflammatory, it may be given with the Tartarised Antimony Wine, No. 16.

In putrid fever, malignant sore-throat, and mortifications, it affords a very excellent vehicle for the exhibition of Peruvian bark. (See Essential Salt of Bark, No. 24, and Mixture, No. 67.) In strangury, three tablespoonfuls of a mixture of camphorated julep, and half a drachm of purified nitre, and two drachms of gum arabic, repeated every three hours, will prove of great service.

In *chronic* rheumatism, and *paralytic affections*, camphor, combined with the guaiac gum, affords an excellent remedy in the proportion recommended for the Anti-rheumatic Mixture, No 71.

In cases of increased irritability of the nervous system, a mixture of camphor, castor, sp. sal volatile, &c. may be taken with great advantage. (See Nervous Mixture, No. 72.)

In cases of hooping-cough, chronic difficulty of breathing, and asthma, a mixture of camphorated julep with oxymel of squills, asafœtida, and æther, (as advised for the Asthmatic Mixture, No. 68), was much recommended by the celebrated Dr. Hartmann, and is certainly a valuable composition for those complaints.

It is worthy of remark, that in *acute* fever, attended either with a determination of blood to the head or lungs, camphor is a very doubtful remedy, and when it fails in those cases to excite perspiration, it generally increases the fever. In this fever it also often disturbs the brain and nervous system.

In maniacal cases, and the delirium attendant on *low* fever, camphorated julep, in the dose of three tablespoonfuls, has often succeeded in procuring sleep

after laudanum had failed: in the same manner, repeated every four hours, it proves serviceable in *eruptive* fevers, and frequently produces the return of receded small-pox or measles.

One drachm of camphor, dissolved in two ounces of rectified spirit of wine, with two drachms of spirit of turpentine, form an excellent stimulating liniment for rheumatic pains and paralytic numbness.

The odour of camphor is by some esteemed an efficacious preventive against contagious fevers; but in this respect it is very inferior to the camphorated acetic acid.

No. 29. COMPOUND CRETACEOUS POWDER.

This powder, composed of prepared chalk, cinnamon, and gum arabic powder, is a very useful medicine for correcting acidity, and strengthening the stomach and bowels, and hence has been found particularly serviceable in restraining looseness arising from acidity or laxity of the bowels. Twenty grains may be taken in a glass of water, with three drops of the essence of cinnamon; or in a mixture, as the Cretaceous Mixture, No. 64.

When looseness is evidently the consequence of acrid humours in the stomach and intestines, an emetic of ipecacuan, No. 23, or a dose of rhubarb, No. 26, should precede the use of this medicine.

When purging occurs spontaneously in fever, it should never be too suddenly checked. Even in low putrid fever it is often of a critical nature, and highly beneficial to the patient. In such cases its effects must be attentively watched, and no astringent medicine of

this kind administered, unless clearly indicated by the reduced state of the patient. (See Diarrhœa.)

This cretaceous powder, for correcting acidity in the stomach, answers as well as magnesia: it, however, differs essentially in its effect on the bowels after uniting with an acid; the magnesia acting as a purge, while the cretaceous powder renders the body costive: hence when acidity is attended with costiveness, magnesia should be preferred, and when with a contrary state of the bowels, the cretaceous mixture. In some cases they may be advantageously combined. (See Magnesia.) The cretaceous powder is very similar to the Gascoign ball, the salutary effects of which depend on its absorbent property. When purging is not excessive, or the object of practice is to moderate, and not to restrain it entirely, lime-water is preferable to this powder. (See Lime-water.)

The new name for this powder is *Compound Powder of Chalk* (*Pulv. Cretæ Comp.*)

No. 30. EXTRACT OF LEAD.

This solution of lead in vinegar makes a good discutient or cooling lotion, in the proportion of ten drops to half a pint of pure water, with half a drachm of laudanum, for inflammations of the eyes; but for bruises, slight burns, scalds, excoriations, and inflammation on the surface of the body, treble the quantity of the extract may be employed, and three drachms of rectified spirit of wine, or three ounces of white wine vinegar, substituted for the laudanum.

This extract is *solely* used externally; and as colicky and paralytic affections have been known to arise from

a portion of the lead being taken up into the system, by the absorbent vessels of the skin, when the inflammation or injury is *extensive*, it will be more advisable to substitute a lotion, composed of equal parts of white wine vinegar and water. This lotion, in such cases, will generally answer all the good purposes of the extract of lead, without producing any of its ill effects, and therefore, in *domestic* practice, should be preferred. The good effects of lotions, no doubt, in a great measure, arise from their being applied *cold*; and as lead certainly diminishes arterial action, a slight impregnation of it must in cases of active inflammation prove highly beneficial. When there is a tendency to gangrene, on the same principle, it is very improper.

The late Sir George Baker published twelve cases of infants who died at Dartmouth of convulsions, occasioned by an ointment made of Goulard's extract, applied to the nipples of their mothers. This ointment, under a plausible name, was sold by a woman famous for her skill in the treatment of sore nipples: and it is to be feared those accidents frequently occur from the use of the advertised nipple ointments, the basis of which I have ascertained to be lead*. For the means

* A child having died rather suddenly of convulsions, in January, 1803, and understanding the mother had applied an ointment recommended by the nurse to the nipples, I was induced to examine the ointment, and question the nurse respecting it. She declared it was *perfectly innocent*, that it did not contain a particle of lead, but that it was made of lytharge of gold, vinegar, and spermaceti ointment, which form the most poisonous preparations of lead that can be made, and which I have no doubt proved fatal to the child. The dusting of children with white lead, generally termed ceruse powder, is also a dangerous practice, and is no doubt often the cause of convulsive fits and pain in the bowels.

of counteracting the effects of lead taken into the stomach, see Treatment of Mineral Poisons.

The last new name for extract of lead is *Solution of Acetate of Lead* (*Liquor Plumbi Acetatis*).

No. 31. LIQUID LAUDANUM.

Of this solution of opium, in proof spirit, from twelve to thirty drops may be taken in any convenient vehicle, and increased or diminished in proportion to the *degree* of pain and *intervals* of its repetition. When judiciously administered, opium, no doubt, is the most valuable medicine we possess; and in certain stages, and with certain combinations, is, more or less, employed in almost every disease incident to the human frame. It has the wonderful properties of mitigating pain, inducing sleep, allaying inordinate action, and diminishing morbid irritability; hence it becomes an invaluable remedy in obviating symptomatic fevers attendant on fractures and other accidents. In spasmodic colic, it will often prevent inflammation of the bowels; and, in all spasmodic affections, it is more or less employed. In incurable and painful diseases, as in cancer, diseased joints, &c. it alleviates the sufferings of the patient, and renders life more tolerable.

If the quantity of eight or ten drops of liquid laudanum (which in domestic medicine should always be begun with) do not answer, it may be repeated and increased till the desired effect is obtained; and in this manner the dose of this drug may in general be pushed with safety to a very great length: but this advice should only be followed in cases of *accidents* and *chronic* diseases, where there is considerable *local* irritation to

overcome. When it disagrees in the ordinary quantity, it may often be given with much advantage in doses of five drops every hour till the desired effect be produced. When the exhibition of laudanum is deemed necessary by way of lavement, in cases of obstinate purging, pain in the bladder or womb, spasms in the bowels, &c. the proportion should be about double the quantity given by the mouth.

In the violent purgings and fever, so often attendant on the difficult dentition of children, laudanum, in the dose of one or two drops about twice a day, will prove very serviceable, by allaying the irritability of the system; and as children are more or less affected at such times with acidity in the stomach, it would always be advisable to administer it with a little magnesia, as the Absorbent Mixture, No. 73; but when the bowels are disturbed, lime-water, in the quantity of a dessertspoonful, is the best vehicle; on the contrary, if the child be of a costive habit, or be disposed to rickets, enlarged bowels, &c. the body should be kept open by the occasional exhibition of rhubarb powder, with calomel, as recommended under the head of Rhubarb Powder, No. 26.

To exhibit laudanum with effect, we should ascertain whether the irritation is attended with a diminished or increased vitality.—If the vital powers run too high, as in acute fever, or local inflammation, the dose of forty or fifty drops will have little or no effect in producing sleep or allaying pain; but if the system be in a relaxed or debilitated state, twelve drops will probably produce the desired effect. Thus, in the commencement of pleurisy, thirty drops of laudanum will not even allay

cough; but when the system is reduced by bleeding, and an aperient mixture, six or eight drops will succeed in quieting cough and procuring rest. Hence, in the use of opium or laudanum, it is of great importance to ascertain whether it be super-irritation or sub-irritation we have to subdue.

To counteract the effects of too large a dose of laudanum, coffee, has been much recommended as a diluter, and ipecacuan powder as an emetic: and when the quantity taken is so great as to render vomiting necessary, the ipecacuan should be administered to the extent of two scruples, with half an ounce of tartarised antimony-wine. The vegetable acids are likewise much recommended as powerful correctors of its narcotic effect, and will prove an useful auxiliary to the emetic. Lemon juice, and vinegar, for this purpose, are equally efficacious, in the quantity of half a wineglassful. (See the Treatment of Vegetable Poisons.)

An acetic tincture of opium, sold under the name of *Black Drop*, has been preferred by some practitioners to the liquid laudanum, on account of its not affecting the head or stomach, or producing that nervous irritability which too frequently follows the exhibition of laudanum. The acetic acid with which this tincture is made, so corrects the opium, that patients have certainly been able to persevere in its use with the most happy effects, who could not take opium in any other form.

For slight inflammation of the eyes, two drops of laudanum, dropped within the eyelids twice a day, will often succeed in dispersing the inflammation much sooner than the saturnine lotions. Some practitioners prefer a watery solution of opium for this purpose: but the

small quantity of spirit in the laudanum is more serviceable than otherwise. The watery solution is, however, less painful.—The new name for laudanum is *Tincture of Opium* (*Tinctura Opii*).

No. 32. ESSENCE OF PEPPERMINT.

The oil of peppermint dissolved in rectified spirit of wine, as in this preparation, by means of a little white sugar, more readily mixes with water, and, in the proportion of thirty drops to a pint, makes a pleasanter and better simple water than that distilled from the recent herb; which, from not retaining its flavour in perfection long, is seldom to be procured fresh. The spirituous peppermint-water may be made by employing brandy in lieu of water, which will prove less pernicious to the organs of digestion than that sold under the name of peppermint cordial, which is made with spirit of wine. Essence of peppermint is chiefly employed to correct the griping quality of purgative medicines, and to render nauseous ones more palatable. The essence is, sometimes, taken alone on sugar, or in a little brandy or water, in cases of flatulence, colicky pains, or spasms in the stomach or intestines, and fits of spasmodic asthma, in which it often affords speedy relief.

No. 33. ESSENCE OF CINNAMON.

This essence, made by mixing the oil of cinnamon with spirit of wine, is recommended for making the spirituous and simple cinnamon-water, in the same manner as the foregoing article, to which more sugar is usually added. Water thus impregnated with the essential oil of cinnamon, is chiefly employed as a vehicle

for administering the absorbent medicines in cases of looseness. (See Cretaceous Mixture, No. 64.) The cinnamon-water, not possessing the astringency of cinnamon, has no advantage over peppermint-water, and is here introduced as a proper substitute for the latter when the flavour of it is unpleasant to the patient.

No. 34. PREPARED CALOMEL.

This is one of the mildest preparations of mercury. In domestic practice it is principally employed as a worm medicine, and is unquestionably a valuable remedy for the destruction of every species of worms lodged in the alimentary canal. Its vermifuge power is increased by the addition of scammony, as in the Basilic Powder, No. 36. For those complaints of the stomach and bowels which are generally attributed to a redundancy of bile, but in fact arise from a deficiency of that secretion, in consequence of an indolent state of the liver, three or four grains may be taken once or twice a week, with ten grains of rhubarb, and three of Jamaica ginger powder, in the form of pills, with great advantage. (See Bilious Affections and Indigestion.)

In those cutaneous affections generally termed scorbutic, and chronic inflammation of the edges of the eyelids, half a grain of calomel, taken twice a day, with six drops of the Antimonial Wine, No. 16, will prove a good alterative medicine: a dose of rhubarb should be occasionally intervened, to prevent such a quantity entering the constitution as might produce salivation, and its use discontinued as soon as it has manifested any effect on the gums or glands of the throat.

In diseases of children, as rickets and convulsions,

which frequently arise from an accumulation of slime in the intestines, and obstructions of the mesenteric glands, this medicine, given in doses proportioned to the age of the child, with a little magnesia, will often be attended with the most salutary effects. It is by some practitioners often prescribed in the dose of six grains for a child of two years old; and experience has proved that children bear the operation of a large dose as well as an adult; but in domestic medicine, it would not be prudent to exceed two grains for a child of one year old, and to increase only one grain for every two years to the age of five. On account of its being too heavy to be suspended in a thin liquid, it should always be administered in a thick vehicle, as honey, currant jelly, &c.

Calomel, although neither diuretic nor sudorific, never fails to increase the operation of such medicines when given in conjunction with them; hence it is very common to prescribe it, with the antimonial powder, in fevers attended with *great dryness* of the skin, to excite perspiration, and with turpentine and squill-powder, to increase the secretion of urine.

Of all the mineral productions used in the practice of medicine, mercury is by far the most valuable; it is the only antidote against the venereal poison with which we are acquainted, and before this most important discovery was made, the havoc produced by that disease was truly dreadful.

In obstructions and chronic inflammation of the viscera, particularly the liver, calomel, judiciously administered, is a most valuable remedy: for this purpose it should be given in the small dose of one grain

(formed into a pill, with conserve of roses) twice a day, so that it may enter the system: if it should disturb the bowels, half a grain of opium, or five grains of the opiate confection, should be added to each dose. Much vegetable food, and particularly acids, should be avoided during an alterative course of mercury.

It frequently happens in cases of affection of the liver or stomach, or some local disease, where it is necessary the mercury should enter the system, that the patient, through irritability of the stomach or bowels, cannot properly persist in its internal use, even in the smallest dose. In such case mercury may be introduced into the habit by the skin, in the form of an ointment. For this purpose the hydrosublimed calomel will answer best. The quantity of three drachms of this preparation, well mixed with an ounce of fresh lard, makes an excellent white mercurial ointment, the size of a small nutmeg of which may be rubbed on the inside of the thigh, leg, or fore-arm, every night till it nearly disappears. The operation of the friction should be performed by the patient if possible, as the hand of an assistant will rob him of nearly half of it. This method of introducing mercury into the system, I have found to answer better in diseases of the liver, stomach, and glandular obstructions, than the exhibition of it by the mouth. By it the patient's stomach is not disordered, which is a great consideration, when the local disease is attended with considerable prostration of strength.

The idea which generally prevails, that mercury disposes the body to the effects of cold, is probably

erroneous; for, by keeping up a determination to the skin, it is more likely to act as a preventive. When mercury enters the system in small quantity, it often affects the glands of the throat, which, by the ignorant, is attributed to cold: certain it is, that those who are exposed to the changes of the weather, take mercury till it produces salivation, without experiencing any injury. Calomel is sometimes adulterated with prepared chalk, which may be discovered by pouring on a small quantity of the suspected calomel a little diluted vi-
 triolic acid; if an effervescence ensue, the adulteration is proved.—The last new name for calomel is *Submuriate of Mercury* (*Submurias Hydrargyri*).

No. 35. EMETIC TARTAR.

This potent preparation of antimony, in the quantity of one grain, dissolved in a little warm water, will produce full vomiting. It is generally given with ipecacuan powder, as the Emetic Powder, No, 88. On the first attack of whooping-cough, small-pox, measles, inflammatory fevers, foulness of the stomach, and diseases of the lungs (as asthma and dyspnœa), it generally proves more successful than ipecacuan powder; but in fevers attended with great prostration of strength or looseness, ipecacuan, as operating less on the bowels, should be preferred.

As patients are differently affected by emetic tartar, the safest method of exhibiting it is by dissolving three grains in two ounces of warm water, and giving two tablespoonfuls of the clear solution every half-hour, till it vomits. For children, emetic tartar is not so safe an emetic as ipecacuan powder; for when great

debility of the system is present, even a small dose has been known to produce distressing effects. In domestic medicine, the preference should, therefore, be given to ipecacuan powder, in the treatment of the diseases of weakly infants.

To excite vomiting after a large dose of a *vegetable* poison, emetic tartar, in the dose of four grains, dissolved in a little water, will often answer better than ipecacuan, on account of its operating *more speedily*; but in cases of *mineral* poisons, ipecacuan, in the doses of two scruples to a drachm, is to be preferred, as the alkaline medicines administered to decompose the mineral poison would have the same effect on the emetic tartar, and thus render it inert. (See Treatment of Poisons.)

The observations on the use of antimonial wine (see No. 16) are equally applicable to emetic tartar, of which the tartarised antimony wine is only a solution in white wine.

The last new name for emetic tartar is *Tartarised Antimony* (*Antimonium Tartarizatum*).

No. 36. BASILIC POWDER,

Is a medicine of great ancient repute, as a remedy for *every species* of worms lodged in the alimentary canal, and is, without doubt, the most powerful and safe vermifuge we are acquainted with. It may be given to children of all ages, in a little honey or currant-jelly, every second or third morning for a fortnight, in the doses of three grains to a child of one year old, increasing one grain for every year, to the age of twenty. The Tonic Mixture, No. 77, should

be taken in the intermediate times, and continued for some time after the evacuation of the worms. It is also a very excellent alterative purge for children, to empty the bowels of slime and crudities; and, at the same time, is a good security against worms and their effects, which so frequently produce the most alarming disorders that assail children. It is likewise a very good purgative medicine for children after the measles and other eruptive fevers that require the use of aperient medicines, and for ricketty children with enlarged bowels.

The basilic powder, in the dose of twenty or thirty grains, is also a valuable purgative medicine in dropical cases, in which it will answer much better than large doses of cream of tartar, or any other cathartic, when a considerable discharge is required from the system. (See Pills, No. 80, and Dropsy.)

A very convenient method of administering this powder to children is in small cakes, made with gingerbread. For this purpose, a drachm of the powder may be well mixed with a little gingerbread paste, and afterwards divided into three equal parts, and baked. Each nut containing twenty grains of basilic powder, may be divided in doses with sufficient accuracy, according to the age of the patient*.

No. 37. ANTIMONIAL FEBRIFUGE POWDER.

This medicine has long been sold under the name of "*Dr. James's Fever Powders.*" The best method

* These nuts, under the name of Basilic Nuts, are kept, by desire of the author, at the Chemical and Medical Hall, 20, Bedford-street, Covent-garden.

of administering it is in the form of pills, by making a drachm into twelve pills, with a little conserve of roses or hips, one of which may be given every four or five hours, till it excites perspiration, in inflammatory fevers, rheumatism, and recent coughs. Dr. Monro very judiciously cautions practitioners against its *indiscriminate* use in every species of fever. "I have known," says the learned doctor, "several instances where it has been given in *putrid* ulcerated sore-throats and in *low* fevers, and it has brought on such a purging as to hurry the patients to their graves in a short time."

In cases of pleurisy, recent cough, *acute* rheumatism, and fevers strictly inflammatory, it is, no doubt, a safe and very efficacious remedy for producing perspiration and quieting the circulation, and more certain in its effects in exciting perspiration than any other sudorific medicine. It must be remembered, that in gaol or pestilential fevers, and putrid sore-throat, it may be productive of much mischief, by reducing the strength of the system, and thus accelerate dissolution; for the low or putrid fever, in spite of all our efforts, will often run its course, and in such case the recovery of the patient will depend chiefly, if not entirely on the natural strength of the constitution. The observations made on the indiscriminate use of antimonial preparations, under the head of Tartarised Antimony Wine, equally apply to this medicine.

No. 38. CAMPHORATED ACETIC ACID.

The acetic acid has a great and rapid action on contagious effluvia. Its vapours or exhalations correct the

irritated atmosphere, and, from being respired, in some degree rouse the vital powers of the system, so as to enable it the better to resist infection. For this purpose it is certainly more efficacious than the once celebrated Thieves' vinegar; and for fumigating *small* rooms or wards, will answer as well as the nitrous or muriatic vapours recommended by Dr. Carmichael Smyth, Mr. Cruickshanks, and Citizen Morveau.

It is generally used by smelling a sponge moistened with it in a wide-mouth bottle or gold case: but, to correct the air of an infected room, it should be diffused through its atmosphere by evaporating it on a saucer over the blaze of a candle.

For the purpose of smelling, in cases of head-ach, or in the contaminated air of gaols, hospitals, crowded rooms, &c. this acid is preferable to the volatile smelling salt, which has no effect in *destroying* putrid effluvia, and which by *much* use considerably injures the sense of smell, and may, in head-achs arising from a determination of blood to the brain, be productive of serious consequences. (See Smelling Salts, No. 39.)

This acid, impregnated with the essential oil of cloves, has been sold under the title of *Aromatic Spirit of Vinegar*. By this addition its antiseptic powers are not increased, but the oil, by becoming rancid, renders it unfit for keeping in warm climates, and, in a great measure, destroys its volatility.

No. 39. VOLATILE SMELLING SALT.

From the great pungency of this salt, it should not be used on *all* occasions, and particularly for head-achs attended with *fever* or *plenitude* of the vessels of the

brain; besides, such powerful stimulants, by frequent use, so injure the olfactory nerves, as often to destroy the sense of smell. It should, therefore, only be employed in cases of fainting and hysteric fits; and on the appearance of returning life, in cases of drowning, hanging, &c. (See Suspended Animation.) The camphorated acetic acid, for the purpose of smelling in crowded rooms, or for slight head-ach, is far preferable.

The new name for this salt is *Carbonate of Ammonia*.

No. 40. BLISTERING PLASTER.

This plaster, composed of Spanish flies, wax, &c. is employed, as its title implies, for the purpose of blistering the skin. In spreading it, great care should be taken that the spatula is only sufficiently warm to soften it; for by much heat the acrid properties of the flies, in which its blistering powers solely reside, will be destroyed. The best method of spreading it, is first to warm it at a little distance from a fire, till it be sufficiently soft to spread with a knife.

When the *speedy* operation of a blister is required, the skin of the part on which it is to be applied should be slightly inflamed by rubbing it with an onion, or the acetic acid. A little camphor scraped over the surface of the blister will often prevent strangury, a common effect of a blister.

Both the discharge and the inflammation produced by blisters are very beneficial in cases of internal or deep-seated inflammation, rheumatism, apoplexy, palsy, and almost all affections of the brain, and diseases of the joints.

The new name for this plaster is *Plaster of Blistering Flies* (*Emplastrum Lyttæ*).

No. 41. SPERMACETI OINTMENT.

This ointment, composed of spermaceti, white wax, and olive oil, is an useful dressing for healing blisters, but when the discharge is deemed necessary, the Savin Ointment, No. 44, should be used. It is likewise serviceable for softening the skin, and healing chaps. This ointment, coloured with alkanet root, is sold for pop salve.

The new Latin name for this ointment is *Unguentum Catacei*.

No. 42. BROWN CERATE.

This cerate, made of bees-wax, olive oil, and prepared calamine, was first recommended by Dr. Turner, and has therefore been usually distinguished by the name of Turner's Cerate. It is a good application for superficial ulcerations and excoriations, and for healing blisters; but for *recent* cuts, diachylon plaster, spread on leather, will answer best, by keeping the edges of the wound in contact. It must be remembered, that the first object in the healing of ulcers, is to abate the surrounding inflammation by rest, and by the application of an emollient poultice of linseed meal, which will likewise produce a discharge of healthy matter, that will prove more healing than all the boasted cerates. An ulcer, in a healing state, is neither painful nor attended with an offensive effluvium; and therefore if a wound be painful, or the discharge offensive, it cannot be going on well. It must also be observed, that without rest and the pro-

per application of rollers, no ointment will succeed in the healing of ill-conditioned ulcers.

The new name for this cerate is *Calamine Cerate* (*Ceratum Calaminæ*).

No. 43. YELLOW BASILICON.

This ointment, composed of yellow resin, bees-wax, and oil, is an excellent application for digesting foul ulcers; it should be spread *thinly* on lint, and applied the same size as the wound, and kept on by an external dressing of brown cerate and a calico or flannel roller. It is not a proper application for *recent* cuts, burns, or scalds: brown cerate, in such cases, should be employed.

The new name for this cerate is *Resin Cerate* (*Ceratum Resinæ*).

No. 44. SAVIN OINTMENT.

This ointment, made by gently boiling bruised Savin in fresh hog's lard, is employed for the purpose of making what is termed the perpetual blister, after the application of the blistering plaster. In consequence of its keeping up the discharge of blisters without producing the irritation and pain excited by the ointment made of Spanish flies or the repetition of a blistering plaster, it is now generally employed for that purpose; but in cases of palsy and *chronic* rheumatism, where the irritation of a blister is more required than the discharge, the Spanish-fly ointment is preferable.

No. 45. SQUILL PILL.

This composition of squill, gum ammoniac, Spanish

soap, and ginger, taken from ten to fifteen grains twice a day, is a powerful medicine in promoting expectoration, and increasing the secretion of urine; hence it is a valuable remedy in cases of *chronic* coughs and asthmatic affections attended with *viscid* phlegm, and in dropsical complaints.

The squill pill, combined with calomel, is an efficacious and valuable remedy for dropsy, either of the chest, belly, or extremities, in the proportions recommended for Dropsy, No. 80.

No. 46. COMPOUND COLOCYNTH PILL.

This pill, chiefly composed of bitter apple, aloes, scammony, and oil of cloves, is well known under the name of Pill Coccia. In the dose of fifteen grains it is a very useful and active purgative medicine; and in cases of *obstinate* costiveness, and when a *speedy* evacuation of the intestines is required, it will answer better than castor oil or any other of this class. It likewise affords an excellent purgative medicine for head-ach, arising from a determination of blood to the brain, and especially if the consequence of a suppression of the piles, which it will often succeed in restoring; but in cases of piles being present, the milder purgatives, as the Aperient Salts, No. 2, or Aperient Mixture, No. 62, will answer best.

No. 47. LENITIVE ELECTUARY.

This composition of senna, cassia, and tamarind pulp, figs, &c. has been long and very deservedly esteemed as a convenient and gentle laxative medicine for habitual

costiveness, piles, &c. It may be taken to the extent of a teaspoonful occasionally. (See Electuary for the Piles, No. 85.)

The new name for this electuary is *Confection of Senna* (*Confectio Sennæ*).

No. 48. PERUVIAN BARK.

There are three species of this bark made use of in Britain—viz. the pale, the red, and the yellow, which are promiscuously administered, from a scruple to a drachm, every hour, in fevers of the intermittent class, commonly called agues, with equal advantage. Some practitioners recommend the red, when it can be obtained genuine: but, through the great difficulty in procuring the true sort, the pale has latterly had the preference. If the full dose disagree with the stomach and bowels, so as to produce vomiting or looseness, three or four drops of laudanum should be given with every or every other dose, and two or three grains of Jamaica ginger, or five of cinnamon powder, if it oppress the stomach. (See Tonic Powder, No. 91.) The powder may be taken either in camphorated julep or peppermint-water; or, in order to cover its ill taste, to which some people have an almost invincible dislike, in an infusion of liquorice root, or in milk, which I have found to answer best. It should be swallowed immediately after it is mixed, otherwise the flavour of the bark will be imparted to the milk.

When the bark, in powder, cannot be made to stay on the stomach, the Essential Salt of Bark, No. 24, affords a very proper substitute, and may be employed

with equal advantage. During the hot fit of an intermittent, it may be given with a tablespoonful of Mindererus's spirit.

In urgent cases of intermittent fever, Dr. Cullen and Dr. Lind advise the bark in powder to be given in the dose of a drachm and a half to two drachms every hour. The stomach, however, in this respect, is the best guide, and as much as it will bear may in general be given with propriety; for, as Torti and other celebrated writers have inculcated, the *larger* the dose, and the *quicker* the repetitions of it, the greater is the power of the medicine in stopping the paroxysms of ague, and the less of it is found to be taken in the end; whereas it has been observed, that when given in small doses, and at long intervals, the sum of the whole quantity taken has been much more considerable, yet it has not produced the desired effect. (See Ague.)

The Peruvian bark, as a strengthening medicine, has been more generally prescribed than any other of the class of tonics. In mortifications, *putrid* sore-throat, and *malignant* fevers, it is generally exhibited, from twenty to forty grains, every two or three hours, in a glass of Port wine, or camphorated julep. In a great variety of diseases, as St. Vitus's dance, scrophula or king's-evil, rickets, nervous irritability, indigestion, hysteric fits, and dropsy, it is likewise administered with great advantage with such combinations as predominant symptoms may indicate. When the bark is entirely nauseated from a weakness of the stomach, or from an aversion of the patient to the taste of the medicine, it will be proper to administer it clysterwise, in the quantity of two or three drachms in half a pint of

beef tea every three hours, in which form it often proves as efficacious as when taken by the mouth.

In cough, asthma, consumption of the lungs, and difficulty of breathing, the bark should not be employed unless sanctioned by an experienced practitioner.

The decoction of bark is made by boiling one ounce of bruised bark in a pint and a half of water, in a close covered vessel for ten minutes. The liquor should be strained, while hot, through a coarse strainer; for if suffered to stand till cold, the most efficacious part of the bark (the resin) will subside. An infusion, both in boiling and cold water, has been recommended in preference to the decoction, on the supposition that the volatile and most active parts escape by boiling; but if a close vessel be employed, this objection is removed. (See Decoction and Infusion.)

The rhatany root is, in many respects, a better tonic medicine than the Peruvian bark; and in the cure of intermittents, and treatment of diseases that require the use of a strengthening medicine, it has proved more successful. It is also less disagreeable to the palate. (See Ague.)

The Peruvian bark is termed a *febrifuge* medicine.—We are not however by it to understand that it is proper in all fevers. Indeed it is only in the intermittent class, where there is a complete intermission, that it has been administered with evident advantage; and even when those cases are attended with much visceral obstruction or local plethora it will prove injurious. (See Ague.) In inflammatory fevers, or fevers attended with local inflammation, it is decidedly very improper; and even in mortifications attended with a quick pulse, or

feverish state of the system, it is inadmissible. When we say, likewise, that it is more or less employed in cases of scrofula, rickets, St. Vitus's dance, &c. it is to be understood, that the system is in a debilitated state, free from fever, and the stomach and bowels in a proper state for its exhibition; for these diseases often occur in robust subjects, when the Peruvian bark would be injurious. Indeed it may be said, notwithstanding this medicine has been so much extolled for its tonic powers, that it has proved chiefly serviceable in cases of convalescency after acute disease; when, no doubt, by invigorating the stomach, it will hasten the recovery of the patient. In cases of debility induced by local diseases, as ulcers with great discharge, &c. it is also a good strengthening medicine.

The new name for Peruvian bark is *Cinchona* (*Cortex Cinchonæ*).

No. 49. JAMAICA GINGER,

Has lately been much extolled as a remedy for gout, indigestion, and flatulence, in the dose of twenty grains to a teaspoonful in any common vehicle; and where the use of a warm stomachic is required, it is no doubt a valuable medicine. Ginger, finely powdered, taken in tea or milk, warms and invigorates the stomach, without heating the body or accelerating the circulation; hence it has proved serviceable in shortening a fit of the gout, and its continued use has in many instances prevented its recurrence, probably by keeping up a healthy digestion, and counteracting the debilitating and other injurious effects of the too free use of vinous or spirituous liquors. Ginger, although pungent to the

taste, often allays the irritation of piles, and speedily removes them; and has succeeded in many distressing affections of the rectum or great gut, arising from chronic inflammation, probably by producing a secretion of mucus from its internal surface. In cases of indigestion, its effects are more permanent when combined with a bitter, as the Tincture of Ginger and Camomile, No. 7.

No. 50. SENNA LEAVES.

In domestic medicine senna leaves have been long employed as a purgative for children. It is customary to disguise its flavour by infusing two drachms, with a little bohea tea, in a quarter of a pint of boiling water, and adding, when poured off clear, a little brown sugar and milk. The ill taste of the senna may thus be so far covered, that children will not discover it: a few coriander or caraway seeds may also be added, to correct its griping quality. Senna is not so efficacious a purge for children as the basilic powder, which has likewise the great advantage of removing slime and destroying worms.

To adults, senna is generally given in conjunction with other purgative medicines, as the Aperient Mixture, No. 62.

No. 51. MANNA,

Is chiefly used as an ingredient in making a purgative mixture, the recipe for which is given under the head of Aperient Mixture, No. 62.

Manna being very subject to generate acidity and air in the bowels, is by no means so good a purgative medicine for infants, as rhubarb combined with magnesia or the basilic powder.

No. 52. GUM ARABIC.

A solution of this gum in the proportion of one ounce in a pint of common or barley water, taken to the extent of a teacupful, furnishes a very excellent lubricating beverage, in cases of inflammation of the kidneys or bladder, bloody urine (arising from gravel or other causes); and when the natural mucus of the intestines is abraded, as in cases of dysentery and violent looseness. With the addition of nitre, it will prove very serviceable in strangury and heat of urine. (See *Diuretic Powder*, No. 89.) As a pectoral drink in cases of pleurisy, gum arabic (in the proportion of two or three drachms to a pint) is a valuable addition to the compound barley-water, directions for making of which are given in the Appendix.

The new name for this Gum is *Acacia Gum* (*Gum Acaciæ*.)

No. 53. PURIFIED NITRE.

This salt possesses a cooling quality, and in the dose of six or ten grains, dissolved in water, Mindererus's spirit, or camphorated julep, quenches thirst, abates febrile heat, and quiets the circulation. It is likewise very efficacious in strangury. (See *Gum Arabic*, No. 52.) In pleurisy and inflammation of the lungs, it is a very doubtful remedy; and although it may succeed in abating the constitutional fever, it has certainly been found to aggravate the local mischief, and to provoke cough.

A solution of nitre in water, in the proportion of half a drachm to half a pint, is a good gargle for dis-

persing inflammation of the throat and mouth; but a few grains gradually dissolved on the tongue, and swallowed with the saliva, generally answer in such cases much better. (See Discutient Gargle, No. 92.)

The new name for Nitre or Salt Petre, is *Nitrate of Potash* (*Nitras Potassæ*).

No. 54. CREAM OF TARTAR,

Is a mild and cooling aperient, and deservedly much employed as an alterative medicine for children, in the inflammatory eruptions of the skin which make their appearance in the spring or summer. The customary addition of an equal quantity of sulphur to it in cutaneous affections is very judicious.

The most convenient and pleasant method of giving cream of tartar and sulphur to children, is in the form of an electuary (made with a sufficient quantity of honey), of which a teaspoonful may be given every morning with a draught of sassafras tea; if it should not operate sufficiently on the bowels, half a drachm of jalap powder may be added to an electuary of an ounce of flowers of sulphur, and the same quantity of cream of tartar.

Cream of tartar is much recommended by Professor Home, as an active and efficacious purge in dropsical complaints: it has not succeeded so well in these cases as the basilic powder, which produces copious discharges from the system, without occasioning the debility which commonly follows large doses of cream of tartar.

The acid beverage so much used in hot climates

under the name of *Imperial Drink*, to cool the body and quench thirst, is made with cream of tartar in the following manner:—Take of cream of tartar three drachms, and the rind of one lemon; pour on them (in an earthen vessel) one quart of boiling water, and, when cold, add a sufficiency of white sugar to render it agreeable to the palate.

Cream of tartar is likewise one of the articles used by Dr. Hahneman, to make his celebrated test for detecting lead fraudulently added to Port wine; a practice so prevalent among wine merchants, that the method of discovering the fraud cannot be too generally known. It is prepared as follows:—

Two drachms of cream of tartar, one drachm of dry liver of sulphur, are to be shaken in a two-ounce phial, filled with distilled water, well corked; the phial is to be occasionally shaken, for about ten minutes; when the powder has subsided, decant the clear liquor, and preserve it in a well-stopped bottle for use: from sixteen to twenty drops of this liquor are to be dropped into a small glass filled with the suspected wine: if the wine turns blackish or muddy, and deposits a dark-coloured sediment, the adulteration with lead is proved, but not otherwise.

Cream of tartar in powder is sometimes adulterated with sulphate of potash, which may be detected by pouring on half an ounce of the suspected cream of tartar two or three ounces of pure water, shake the mixture frequently, and let it stand one hour: the sulphate of potash being more soluble than the cream of tartar, will be taken up, and may be known by the bitter taste of the solution.

The last new name for Cream of Tartar is *Supertartrate of Potash* (*Supertartras Potassæ*).

No. 55. WASHED SULPHUR.

This preparation is better known under the name of the flowers of sulphur. In the dose of half a drachm to a drachm, it operates as an aperient medicine, and, by increasing the insensible perspiration, has proved of great utility in cutaneous obstructions and foulness. It is given with advantage in conjunction with the cream of tartar. (See No. 54.) It is a mild aperient, and, in consequence of its operating without exciting heat or irritation in the bowels, it is generally preferred in piles. When the bowels are confined, it will be necessary to add a proportion of the lenitive electuary, to which a little nitre will prove serviceable, if the piles be attended with inflammation. (See Piles, No. 85.) The aperient sulphureous water, under the head of Rochelle Salt, No. 2, affords an excellent substitute for this composition, and in cases of inflammation is entitled to the preference.

In *chronic* rheumatism and gouty affections of the joints, unattended with fever, a teaspoonful of flowers of sulphur, with half the quantity of Jamaica ginger powder, taken every morning in a glass of milk, has proved an excellent remedy.

An ointment made of one part of flowers of sulphur, and four of hog's lard, is an efficacious remedy for the itch, and much safer than mercury: its internal use is at the same time proper. (See Itch Ointment, No. 107.)

Sulphur, although apparently a medicine of no considerable efficacy, has the property of restraining the action of some of the most powerful poisons. Mercury,

by an admixture with it, is almost rendered inert; thus, Æthiop's mineral, which is composed of equal parts of flowers of sulphur and mercury, may be given to the extent of sulphur alone, without manifesting any further effects on the system than might be expected from the exhibition of the sulphur; when mercury, therefore, has exceeded in operation, sulphur is employed to abate the effects. Even the corrosive poison, arsenic, by the addition of sulphur becomes almost innocent; but, for counteracting the effects of mineral poison when taken into the stomach, the liver of sulphur will answer best, on account of its solubility in water, and its more rapid action on them. (See Treatment of Mineral Poisons.)

The preparation of sulphur, termed (from its colour) *Milk of Sulphur*, so far from possessing any advantage over the flowers or washed sulphur, is certainly less efficacious, the peculiar properties of the sulphur being impaired by the process employed for making it.

The new name for Flowers of Sulphur is *Sublimed Sulphur* (*Sulphur Sublimatum*.)

No. 56. COURT PLASTER.

This well-known plaster is an useful application for recent *superficial* cuts, to keep the edges in contact, and defend them from the action of the atmospheric air, &c. If the wound be deep, or attended with much irritation, or the part be bruised, the diachylon plaster, spread on leather or black silk, will answer best. (See Cuts.)

No. 57. LINT.

This is a very useful article in a Medicine Chest for the purpose of dressing and cleaning sores or ulcers. When applied dry, it will destroy fungous flesh, and with a little pressure stops the bleeding of superficial wounds, and the punctures of leeches.

No. 58. DIACHYLON PLASTER,

Spread on leather, is a common and good application for slight contusions, excoriations of the skin, chilblains, corns, and fresh cuts.

No. 59. GUM PLASTER,

Is an useful application, spread on leather, for promoting the suppuration of boils and abscesses.

No. 60. PREPARED NATRON, OR SODA.

This salt dissolved in pure water, in the proportion of three drachms to a pint, forms a valuable alterative medicine; and in the dose of a wineglassful, two or three times a day, will prove highly beneficial to children affected with scrophula, rickets, scald head, cutaneous eruptions, and acidity in the stomach. (See Rickets and Scrophula.) A weak solution of one ounce in five pints of water, saturated with fixed air by Nooth's machine, is sold under the name of Soda-water, and much recommended as a remedy for stone and gravel. When this water disagrees with the stomach, pills of dried soda and Castile soap afford a good substitute. (See Pills for Gravel and Stone, No. 81.) Natron saturated with fixed air, termed

Carbonate of Soda, is preferable to the dried natron in cases of gravel and stone. Two drachms of this preparation, dissolved in a quart of water, is superior as a medicine to the soda-water, on account of the fixed air not being disengaged when exposed to the atmosphere. The article sold in this country under the title of *Soda-water*, is generally made with the carbonate of potash and oil of vitriol; and as a cooling beverage in summer it may answer as well as the true soda-water; but in its *medicinal* properties it is very different, and in cases of stone or gravel will prove of no utility.

Prepared natron is a medicine of great power in the cure of many constitutional diseases; and although slow, is a more certain alterative in complaints of long standing than those of a more active kind. Its *continued* use has, in many instances, succeeded in dispersing schirrous or cancerous tumours, and in the cure of obstinate cases of scrophula, after mercury and other more active alterative medicines had failed. When gout is attended with acidity in the stomach, it is a valuable remedy. (See Gout.) To children, the solution of it in water, as recommended above, may be conveniently given in milk. (See Lime-water and Rickets.)

FAMILY PRESCRIPTIONS;

OR,

USEFUL COMPOUNDS OF THE DIFFERENT MEDICINES
RECOMMENDED BY THE AUTHOR TO SUPPLY
THE FAMILY MEDICINE CHEST.

INTERNAL REMEDIES.

MIXTURES.

THE difference between this form of medicine and a julep is, that a MIXTURE is composed both of soluble and insoluble substances. As there is no regular measure for the dose of a mixture, many physicians give the preference to a draught, which is a single dose of a mixture. Patients often prefer this liquid form of medicine to either a pill, bolus, or electuary, and in general its operation is more speedy and effectual.

No. 61. *Stomachic Mixture.*

Take of the essential salt of bark, No. 24, one drachm; dissolve in half a pint of distilled water: then add tincture of Jamaica ginger and camomile, No. 7, two drachms.

Two or three tablespoonfuls of this mixture may be taken three times a day. When acidity prevails in the stomach, a drachm of prepared natron, No. 60, or a drachm of magnesia, No. 1, may be added; or in cases of costiveness, unattended with acidity, two or three drachms of Epsom salt.

No. 62. *Aperient Mixture.*

Take of senna leaves, two drachms; infuse in a quarter of a pint of boiling water for half an hour, then strain, and add Rochelle or Epsom salt, No. 2, half an ounce; compound tincture of senna, No. 8, an ounce.

Three tablespoonfuls to be taken every two or three hours, till it operates.

In cases of obstinate costiveness or colic, a dessertspoonful of castor oil, No. 3, may be taken in each dose, and a laxative

clyster, No. 97, will be also necessary, if a speedy evacuation be required.

No. 63. *Sudorific Mixture.*

Take of Mindererus's spirit, No. 10, three ounces; ipecacuan powder, No. 23, ten grains; pure water, five ounces; essence of peppermint, No. 32, fifteen drops. Mix.

Three tablespoonfuls to be taken every two hours, till it produces the desired effect.

N. B. All medicines administered to promote perspiration, should be assisted in their operation by the plentiful use of tepid drinks, such as warm barley-water, gruel, tea, or the like.

No. 64. *Cretaceous Mixture.*

Take of the compound cretaceous powder, No. 29, two drachms; gum arabic powder, No. 52, three drachms; laudanum, No. 31, twenty drops; pure water, six ounces; essence of cinnamon, No. 33, forty drops: dissolve the gum arabic in an ounce of water, and rub with it the compound powder; then add the other ingredients.

Two tablespoonfuls to be taken after every loose stool, in cases of diarrhœa or dysentery. (See Diarrhœa, Cretaceous Powder, and Lime-water.)

No. 65. *Anti-hysterical Mixture.*

Take of tincture of asafœtida, No. 19, three drachms; sal volatile, No. 13, two drachms; camphorated julep, No. 28, six ounces. Mix.

Two tablespoonfuls to be taken every three or four hours.

No. 66. *Cough Mixture.*

Take of tartarised antimony wine one drachm, or ipecacuan wine, two drachms, or ipecacuan powder, No. 23, ten grains; gum arabic powder, No. 52, four drachms; laudanum, No. 31, twenty drops; simple oxymel, two ounces; almond emulsion, six ounces. Mix.

Two tablespoonfuls to be taken every two hours, for recent coughs, pleurisy, and inflammation of the lungs. In case of fever or a dry skin, the tartarised antimony wine should be preferred to ipecacuan. (See Cough.)

No. 67. *Camphorated Bark Mixture.*

Take of essential salt of bark, No. 24, one drachm; dissolve in camphorated julep, No. 28, six ounces; sweet spirit of nitre, No. 15, two drachms. Mix.

Three tablespoonfuls to be taken every two or three hours, in low infectious fevers, putrid sore-throat, and mortifications.

The bark thus associated acts, as M. Lassonne has observed, with more energy and force, whether it be employed for the purpose of curing fever or gangrene; and this assertion Dr. Cullen believes, and experience has proved to be well founded.

No. 68. *Asthmatic Mixture.*

Take of paregoric elixir, No. 11, one ounce; camphorated julep, No. 28, six ounces; tincture of asafoetida, No. 19, half an ounce; or vitriolic ether, No. 14, three drachms; honey, half an ounce. Mix.

Two tablespoonfuls to be taken with ten grains (in two pills) of the squill pill, No. 45, for *chronic* difficulty of breathing and *spasmodic* asthma unattended with fever. (See Asthma.)

No. 69. *Gout Mixture.*

Take of volatile tincture of guaiacum, No. 20, six drachms; camphorated mixture, No. 28, six ounces; tincture of rhubarb, No. 4, half an ounce; honey, half an ounce: rub the tincture of guaiacum with the honey, in a glass mortar; then add the other article by degrees.

Two tablespoonfuls to be taken every four or five hours. (See Gout.)

This mixture is employed as a restorative, after the inflammatory stage of gout is over. Gouty subjects of languid constitutions or advanced in life, have taken it during the paroxysm with great advantage.

No. 70. *Anti-spasmodic Mixture.*

Take of ether two drachms; sp. sal volatile, a drachm and a half; liquid laudanum, thirty drops; camphorated mixture, six ounces. Mix.

Two tablespoonfuls to be taken every three or four hours, for spasmodic colic and asthma.

This is a very efficacious remedy for spasms of the stomach. In cases of colic, it should not be administered till three or four evacuations have been procured from the bowels, by means of castor oil, No. 3, or the aperient mixture, No. 61, and clyster, No. 97, unless attended with very acute pain in the bowels.

No. 71. *Anti-rheumatic Mixture.*

Take of volatile tincture of guaiac gum, No. 20, half an ounce; honey, half an ounce; camphorated julep, No. 28, six

ances: rub the tincture of guaiac gum with the honey, in a mass mortar; and add the other articles by degrees.

Two tablespoonfuls to be taken three or four times a day for chronic rheumatism. (See Rheumatism.)

No. 27. *Nervous Mixture.*

Take of essential salt of bark, No. 24, one drachm, or extract of rhatany root, a drachm and a half; dissolve in camphorated oil, No. 28, six ounces, then add spirit of sal volatile, No. 33, two drachms; compound spirit of lavender, No. 9, three drachms.

Two tablespoonfuls to be taken three or four times a day. For general nervous irritability and periodical head-achs, this is a very valuable remedy.

No. 73. *Absorbent Mixture.*

Take of magnesia, No. 1, one drachm; rhubarb powder, No. 33, ten grains; laudanum, No. 31, six drops; pure water, two ounces; essence of mint, No. 32, four drops. Mix.

A teaspoonful to be given in cases of gripes, and flatulency, affecting children: if attended with purging, the following mixture will answer best.

Take of lime-water, two ounces; compound tincture of caraway seeds, two drachms; liquid laudanum, six drops: to be given as the preceding mixture.

No. 74. *Stimulating Mixture.*

Take of horse-radish root, sliced, and mustard seed, bruised, of each one ounce; infuse in a pint of boiling water in a gentle heat, for twelve hours; then strain, and add compound spirit of lavender, No. 9, one ounce.

A wineglassful to be taken three or four times a day for paralytic complaints. (See Palsy.)

No. 75. *For Scrophula, or King's Evil.*

Take of essential salt of bark, No. 24, two drachms; muriate of lime, three drachms, or prepared natron, two drachms; dissolve in a pint of distilled water; then add compound tincture of rhatany root, No. 6, one ounce.

Three tablespoonfuls to be taken three times a day. (See Scrophula.)

No. 76. *For the Hooping-cough.*

Take of ipecacuan powder, No. 23, ten grains; tincture of saffœtida, No. 19, one drachm; laudanum, ten drops; pure water, two ounces. Mix.

To a child of two years old, a teaspoonful may be given every three hours, increasing ten drops for every additional year. (See Hooping-cough.)

No. 77. *Tonic Mixture.*

Take of extract of rhatany root, three drachms; dissolve in twelve ounces of water, and add aromatic tincture of rhatany root, one ounce; sp. sal volatile, No. 13, two drachms.

Two or three tablespoonfuls to be taken every three or four hours, for relaxation and weakness of the system: when attended with a sluggish state of the bowels, three drachms of the vitriolated kali may be added; and in case of profuse perspiration, two drachms of the diluted vitriolic acid may be substituted for the sp. sal volatile.

No. 78. *Saline Mixture.*

Take of crystallized acid of lemon, one drachm, or fresh lemon juice, an ounce and a half; salt of wormwood, No. 21, one drachm; white sugar, three drachms; pure water, twelve ounces; essence of peppermint, No. 32, thirty drops. Mix.

A teacupful to be taken frequently in inflammatory fevers and sore-throat. (See No. 21 and 22.)

PILLS.

A **PILL** is a form of medicine generally composed of drugs which operate in small doses, and whose nauseous and offensive taste or smell requires them to be concealed from the palate. A pill should be of the consistence of firm paste, of a round form, and not exceed five grains in weight, unless the composition be ponderous.

No. 79. *Asthmatic Pills.*

Take of squill pill, No. 45, two drachms; gum asafœtida, one drachm. Mix, and divide into thirty-six pills.

Two be taken twice or thrice a day. (See Asthma.)

No. 80. *Pills for Dropsy.*

Take of squill pill, No. 45, two drachms; prepared calomel, No. 34, ten grains; gamboge powder, a scruple. Mix well together, and divide into thirty-six pills.

Three to be taken twice a day, with a wineglassful of the tonic mixture, No. 77.

After taking these pills six days, the calomel should be omitted; and in the course of ten days, if the mouth be not affected by it, it may again be taken with advantage. (See Dropsy.)

No. 81. *Pills for the Gravel.*

Take of dried natron, two drachms; Spanish soap, two drachms; with oil of juniper make into sixty pills.

Of which three are to be taken three times a day. When the mephitic alkaline water (noticed under the head of Salt of Wormwood, No. 21.) disagrees with the patient, this form affords an excellent substitute.

No. 82. *Tonic Pills.*

Take of essential salt of bark, No. 24, one drachm; salt of steel, No. 25, a scruple; gum olibanum, one drachm: with simple syrup make a mass, and divide into thirty-six pills.

Three to be taken twice a day, for fluor albus and gleet.

No. 83. *Bilious Pills.*

Take of rhubarb, No. 26, two drachms; calomel, No. 34, half a drachm; essence of peppermint, No. 32, ten drops: with a little syrup make into thirty pills.

Three to be taken every third morning, with a wineglassful of the solution of the Epsom salt, see No. 2.

No. 84. *Cathartic Pills.*

Take of compound colocynth pill, No. 46, one drachm; calomel, No. 34, fifteen grains; mix, and form into fifteen pills.

Three to be taken for a dose, in obstinate constipation of the bowels, and redundancy of bile.

These pills are sold under the name of Dr. Hugh Smith's Antibilious Pills.

ELECTUARIES.

AN ELECTUARY is a form of medicine composed of powders, incorporated with some syrup, or conserve, or honey. As a draught is a single dose of a mixture, so is a bolus a single dose of an electuary. As this form is much disposed to ferment, it should be kept in a cool place. It should be made of the consistency of honey.

No. 85. *For the Piles.*

Take of flowers of sulphur, No. 55, six drachms; lenitive electuary, No. 47, two ounces; nitre powder, No. 53, half a drachm.

A teaspoonful to be taken twice a day. (See Piles.)

No. 86. *For the Tape Worm.*

Take of granulated tin, six ounces; carbonate of iron, one ounce; conserve of wormwood, three ounces. Mix.

A large teaspoonful to be taken every morning, with a draught of lime-water. (See Worms.)

No. 87. *Cough Linctus.*

Take of spermaceti powder, two drachms; oil of almonds, three drachms; conserve of hips, one ounce; syrup of wild poppies, six drachms; ipecacuan powder, No. 23, ten grains; diluted vitriolic acid, No. 18, ten drops. Mix.

A teaspoonful to be taken every two or three hours, or when the cough is troublesome.

POWDERS.

THIS form is only proper for such materials that will admit of being sufficiently dried so as to be reduced to powder, without the loss of their virtue: there are, however, many substances of this kind that are not given in powder, on account of their bulk and disagreeable flavour. It is worthy notice, that some articles answer much better in powder than in any other form. The Peruvian bark, and other medicines, have only answered in intermittents when given in powder; so that much of their effects may be attributed to their mechanical action on the stomach.

No. 88. *Emetic Powder.*

Take of ipecacuan powder, No. 23, a scruple; emetic tartar, No. 35, one grain. Mix.

No. 89. *Diuretic Powder.*

Take of purified nitre, No. 53, one drachm; gum arabic, No. 52, three drachms. Mix, and divide equally into twelve papers.

One to be taken three times a day, with a draught of barley-water, for strangury, heat of urine, and gravel.

No. 90. *Worm Powder.*

See Basilic Powder, No. 36.

No. 91. *Tonic Powder.*

Take of Peruvian bark powder, No. 48, or rhatany root powder, one ounce; Jamaica ginger powder, No. 49, half a drachm. Mix, and divide into twelve papers.

One to be taken every or every other hour, in intermittent fevers.

G A R G L E S.

A GARGLE is a liquid form of medicine used for washing the mouth or throat, when inflamed, ulcerated, parched, or foul.—The quantity of two tablespoonfuls is generally taken into the mouth, moved briskly about, and then spit out: or when the patient is not capable of doing this with any advantage, the liquor may be injected by a syringe, or applied by means of a sponge, secured to the end of a piece of whalebone. The use of a gargle should be repeated every hour in cases of ulceration and inflammation.

No. 92. *Discutient Gargle.*

Take of purified nitre, No. 53, one drachm; gum arabic, No. 52, three drachms: dissolve in half a pint of pure water.

To be used frequently for inflammatory sore-throats. (See Inflammation of the Throat.)

No. 93. *Acidulated Gargle.*

Take of red rose leaves, two drachms; infuse in a pint of boiling water till cold; then strain, and add diluted vitriolic acid, No. 18, thirty drops.

For inflammation of the tonsils and mouth.

No. 94. *Astringent Gargle.*

Take of oak bark, half an ounce; boil in a pint of water for a quarter of an hour: then strain, and add alum, two drachms; and Port wine, four ounces.

To be used every two or three hours, in cases of relaxation, or falling down of the soft palate.

No. 95. *Detergent Gargle.*

Add to the acidulated gargle, No. 93, uncture of myrrh, No. 16, and honey, of each half an ounce.

For the malignant ulcerated sore-throat, thrush, and foul ulcers in the mouth.

LAVEMENTS OR CLYSTERS.

THE term lavement, or clyster, signifies any liquid medicine injected into the rectum, or great intestine. This class of medicine is much employed on the continent, but has not met with that attention in England which its importance entitles it to, partly through the antipathy of patients, but principally on account of the difficulty of procuring a person to administer it properly. To render this form of medicine more popular, Mr. Savigny has invented a simple machine to enable a person to administer it to himself with the greatest facility. (See Lavement.)

The lavement is used for the same purposes as mixtures. Thus, in cases of costiveness, it not only softens the fæces collected in the lower intestine (often the cause of costiveness), but also, by stimulating the parts, purges the bowels. In cases of obstinate costiveness, or obstructions in the bowels, a lavement accelerates the operation of purgative medicines taken by the mouth. In cases of violent diarrhœa, dysentery, and the purging of children, a lavement of vegetable jelly (as starch or arrow root, to which laudanum may be added in case of violent pains or irritation), is a most important remedy. The Peruvian bark may also be exhibited this way to patients whose stomachs will not bear it in intermittent fevers, and also laudanum in acute pain in the bowels.

Clysters are likewise used as a fomentation in cases of inflammation of the bladder, womb, or bowels; and for nourishing the body when the patient cannot retain food, or the stomach is not able to swallow it, through inflammation of the throat, or obstruction in the gullet.

The following are the most useful:

No. 96. *Anodyne Lavement.*

Take of starch jelly, half a pint; laudanum, No. 31, forty drops. Mix.

The whole to be injected by means of a pewter lavement syringe*, in cases of dysentery, violent purging, and pain in the bowels.

* There are several sorts of this instrument: the one with a curved or flexible tube is the most convenient, on account of enabling the patient to administer the lavement to himself.

No. 97. *Laxative Lavement.*

Take of Epsom salt, No. 2, two ounces. Dissolve in three quarters of a pint of warm gruel or broth, with an ounce of fish butter, or sweet oil.

No. 98. *Anti-spasmodic Lavement.*

Take of tincture of asafœtida, No. 19, half an ounce; laudanum, No. 31, forty drops; gruel, half a pint. Mix.
For spasmodic affections of the bowels.

No. 99. *Nutrient Lavement.*

Take of strong beef tea, twelve ounces; thicken with hartshorn shavings, or arrow root.

In cases of extreme debility of the body, or when the patient cannot take food by the mouth, through some obstruction of the throat, this affords considerable support to the system, and has been the means of preserving the lives of patients till the cause has been removed.

It should be thrown up with a flexible tube, longer than the syringe pipes in common use, gently insinuated up the rectum. In consequence of the improper exhibition of this composition, diarrhœa has been produced, which the reduced state of the patient could ill bear.

EXTERNAL APPLICATIONS.

LOTIONS AND EMBROCATIONS.

A LOTION is a form of medicine chiefly composed of an aqueous liquid, used as a wash, or applied by folds of linen.

No. 100. *Eye-water.*

Take of Goulard's extract of lead, No. 30, ten drops; white wine vinegar, two drachms; laudanum, No. 31, thirty drops; distilled water, eight ounces. Mix.

For inflammation of the eye, or eye-lids.

To be frequently applied by means of folds of fine old linen, over the affected eye or eyes. (See Inflammation of the Eye.)

No. 101. *Astringent Eye-water.*

Take of blue vitriol, one grain; dissolve in four ounces of distilled water, and add laudanum, No. 31, thirty drops.

To be dropped between the eyelids of the affected eye, three or four times a day, for films or specks.

No. 102. *Discutient Lotion.*

Take of camphor, No. 28, two drachms; dissolve in rectified spirit of wine, four ounces; then add white wine vinegar, a pint.

For strains, bruises, and inflammation arising from accidents.

It may be conveniently applied in the form of a poultice, by adding a sufficient quantity of bran to make it of a proper consistence, and pouring on the surface a fresh quantity of the embrocation, when the bran gets dry, or feels warm to the patient.

No. 103. *Volatile Liniment.*

Take of spirit of hartshorn, No. 12, six drachms; olive oil, an ounce: shake well together.

This is a good stimulating liniment for chronic rheumatism, paralytic numbness, and stiffness of joints.

No. 104. *Liniments for Burns and Scalds.*

Take of lintseed-oil and lime-water, of each four ounces; laudanum, No. 31, half an ounce. Mix.

To be applied by means of lint, or soft old linen: or

Take of expressed juice of potatoes, half a pint; spirit of wine, three ounces; liquid laudanum, half an ounce. Mix.

To be applied as above.

The efficacy of the latter liniment, in recent scalds and burns, has lately been much extolled by several able surgeons in London.

OINTMENTS.

OINTMENT is a composition of animal fat or fixed oil with other substances for external uses; it differs from liniment and plasters in consistence only, being thicker than the latter and thinner than the former. When they contain a large proportion of wax, and of a consistence between that of ointment and plaster, it is termed cerate. Ointments are not only used to defend wounds from the action of the cold air, but also to

assage pain and inflammation, to produce an healthy discharge from ulcers, and often as an external dressing, to remain on the part such other applications as may be necessary to destroy fungus, &c. The following are the most useful :

No. 105. *Pile Ointment.*

Take of spermaceti ointment, No. 41, one ounce ; Goulard's extract of lead, No. 30, fifteen drops ; laudanum, No. 31, one drachm. Mix well together. (See Piles.)

No. 106. *Alterative Ointment.*

Take of nitrated quicksilver ointment, and spermaceti ointment, of each equal parts. Mix well together.

To be rubbed over the part affected every morning, for scald head. (See Scald Head.)

No. 107. *Itch Ointment.*

Take of flowers of sulphur, No. 55, two ounces ; hog's lard, four ounces ; oil of lavender, sixty drops. Mix.

To be well rubbed on the parts affected every night, till the eruption ceases to be troublesome. (See Itch.)

PLASTERS.

No. 108. *Pectoral Plaster.*

Take of Burgundy pitch, two ounces ; blistering plaster, No. 40, three drachms ; camphor, No. 28, one drachm.

Melt the Burgundy pitch over a gentle heat, and when cooling, add the blistering salve, and lastly the camphor, in powder. To be spread on leather, and applied over the breast bone, in cases of asthma, difficulty of breathing, whooping-cough, and consumption of the lungs.

No. 109. *Corn Plaster.*

Take of hemlock plaster, with gum ammoniac, an ounce ; camphor, one drachm. Mix, and spread on thin leather.

The application of this plaster will not only alleviate the pain attendant on corns, but often succeed in removing them. (See Corns.)

No. 110. *Discutient Plaster.*

Take of soap and hemlock plasters, of each three ounces ; camphor, two drachms.

Melt the two plasters together, over a gentle heat, and afterwards add the camphor in powder. To be spread on leather, for rheumatic pains, indolent tumours, and chronic enlargement of joints.

CATAPLASMS OR POULTICES.

THE most frequent intention of a poultice is to soothe a part which is irritated, and to allay inflammation; but it may also be used to defend a sore from the action of the atmosphere, whilst a natural cure is going on, as is advised by the late Mr. Hunter.

In the common *bread poultice*, it has been the custom for a long period to employ milk; but as it is very liable to turn sour by the heat of the body, and possesses no advantage over water, the latter is now preferred by surgeons. Poultices are not only used to abate inflammation, or promote suppuration, but also for the purpose of stimulating the skin in cases of palsy, or for producing a determination of blood to the extremities, in cases of plethoric or inflammatory affections of the head.

Cataplasm or poultice is generally formed of vegetable substances, and applied of such a consistence as neither to adhere much nor run. They are also more useful when the intention is effected by the *perpetuity* of the heat or cold, which they communicate, for they retain these properties longer than any other kind of external application.

The following are the most useful :

No. 111. *Mustard Poultice.*

Take of flour of mustard, one part; oatmeal, three parts; vinegar, a sufficient quantity to form a poultice.

Boil the oatmeal and vinegar together, and afterwards sprinkle in the flour of mustard. To be applied warm.

No. 112. *Emollient Poultice.*

Take of pure water, half a pint; crumbs of white bread, a sufficiency to form a poultice; then add, Goulard's extract of lead, No. 30, forty drops. Mix well together.

Milk, so generally employed for making discutient poultices, by soon turning sour, from the heat of the body, becomes a bad external application for allaying inflammation.

No. 113. *Suppurative Poultice.*

Take of oatmeal, half a pound; strong beer grounds, a sufficiency to form a poultice; then add one drachm of camphor, dissolved in half an ounce of spirit of turpentine. Mix well together.

To be applied warm, for the purpose of promoting the maturation of indolent tumours or boils.

DECOCTIONS.

DECOCTIONS differ from infusions only in the action of the water being assisted by a boiling heat. Although this increased heat may hasten the extraction of the medicinal virtue of many articles, it decomposes and dissipates all volatile matters. Boiling, therefore, is only necessary for the solution of principles that are not volatile or altered by heat. Decoctions should be made in vessels sufficiently large to prevent any risk of boiling over, and should be continued gently and without interruption.

The virtues of the productions of the vegetable kingdom employed in medicine, being imparted to water, either by boiling or by infusion, decoctions and infusions are much prescribed by practitioners in preference to tinctures. Of these preparations the following are most in use;

No. 114. *Decoction of Peruvian Bark.*

Take of Peruvian bark bruised, one ounce; water, a pint and a quarter.

Boil for ten minutes in a covered vessel, and strain the liquor while hot.

No. 115. *Decoction of White Hellebore Root.*

Take of white hellebore root bruised, one ounce; water, one quart: to be boiled till the water is reduced to a pint, then strain, and add rectified spirit of wine two ounces.

This decoction is employed as a lotion for the itch, which it frequently cures, and is exempt from the great objection made to sulphur ointment and mercury.

No. 116. *Decoction of Marsh-mallow Root.*

Take of marsh-mallow roots, bruised, three ounces; raisins, toned, one ounce: water, three pints and a half.

Boil the ingredients in the water till it is reduced to two

pints, then strain off the liquor, and let it stand for two or three hours to settle.

This decoction is chiefly used in cases of gravel, strangury, and cough. It is in no respect superior to the compound decoction of barley.

No. 117. *Decoction of Iceland Liverwort.*

Take of Iceland liverwort one ounce and a half; liquorice root sliced, three drachms; water one quart.

After freeing the liverwort from the green moss, and washing it in cold water, boil it in the water to a pint and a half, and strain while warm.

No. 118. *Compound Decoction of Sarsaparilla.*

Take of the root of sarsaparilla, sliced and bruised, six ounces; bark of the root of sassafras, shavings of guaiac wood, liquorice root, of each one ounce; mezereon, three drachms; distilled water, ten pints: macerate for six hours; then boil it down to five pints, adding, towards the end of the boiling, the mezereon and sassafras, and strain the liquor for use.

This decoction is an improvement on the once highly celebrated *Lisbon Diet Drink*, which, for some time after its first introduction into Great Britain, was kept a secret. In the dose of four and six ounces three or four times a day, it has been found very serviceable in obstinate rheumatic affections, particularly when the consequence of the long use of mercury. It is also an excellent alterative in scrophula, schirrous affections of the womb, and cutaneous foulnesses.

INFUSIONS.

WHEN the medicinal virtues of any substance chiefly reside in an essential oil, or in a volatile matter, then extraction by infusion is preferred to decoction, as by the latter these active parts are evaporated. The process consists in pouring on the bruised substance in a proper vessel the liquor, either hot or cold, and afterwards covering it over. The liquor should be slightly agitated, and after standing the proper time, poured off, or strained through fine linen. Maceration differs from infusion, in being continued a longer time, and can only be employed for substances which do not easily ferment or spoil. The following infusions are principally in use:

No. 119. *Infusion of Rhatany Root.*

Take of Rhatany root, one ounce; boiling water, one pint: macerate for twenty-four hours, and strain through fine cloth.

This elegant form contains the active principles of the Rhatany root, and agrees much better with weak or delicate stomachs, than either the powder or decoction of it. It is given in the quantity of a small wineglassful, to which it is customary to add a teaspoonful of the compound tincture of cardamoms.

No. 120. *Bitter Infusion.*

Take of gentian root, sliced, one drachm; dried Seville orange peel, one drachm and a half; fresh outer rind of lemon, half an ounce; boiling water, three quarters of a pint: macerate for an hour, and strain for use.

This infusion is in very common use as a stomachic medicine, in the quantity of three tablespoonfuls two or three times a day.

No. 121. *Alkaline Bitter Infusion.*

Take of the bitter infusion, eight ounces; salt of wormwood, twenty grains: mix.

This is to be taken in the same manner as the preceding infusion. In cases of indigestion, especially when acidity prevails in the stomach, this is a very excellent remedy.

No. 122. *Infusion of Valerian.*

Take of valerian root bruised, one ounce; infuse in three quarters of a pint of boiling water; when cold strain off the liquor, and add six drachms of compound spirit of lavender and three of spirit of sal volatile. A wineglassful may be taken three or four times a day, in nervous and paralytic disorders.

No. 123. *Infusion of Rhubarb.*

Take of rhubarb root, bruised, a quarter of an ounce; boiling water, a quarter of a pint; spirit of cinnamon, one ounce; macerate the rhubarb in a close vessel with the water for twelve hours, then add the spirit of cinnamon, and strain the liquor.

This is a very excellent, and perhaps the best preparation of rhubarb, when designed as a purgative, as the virtue of the rhubarb is more readily imparted to water than any other liquor. The dose is from two to four tablespoonfuls.

No. 124. *Infusion of Roses.*

Take of red rose leaves, half an ounce; boiling water, two pints; vitriolic acid, half a drachm by weight; white sugar, one ounce; macerate the rose leaves with the water in an earthen vessel (not glazed with lead) for four hours, then add the vitriolic acid, strain the liquor, and dissolve in it the sugar.

This is an excellent and efficacious medicine in hæmorrhages, either from the nose, womb, stomach, or lungs, in the quantity of three tablespoonfuls every three or four hours.

No. 125. *Infusion of Senna.*

Take of senna leaves, three drachms; boiling water, five ounces; coriander or carraway seeds, bruised, one drachm; macerate them for an hour in a covered vessel, and strain through fine cloth.

This is a very efficacious purge in the dose of three or four spoonfuls. The carraway or coriander seeds not only cover the ill flavour of the senna, but also correct its griping quality. It should be always used fresh, as it is apt to spoil very quickly.

No. 126. *Infusion of Linseed.*

Take of linseed, one ounce; liquorice root, two drachms; boiling water, two quarts: to be macerated for six hours, stirring the mixture with a spoon about every hour, in order that the mucilage of the seeds may be suspended.

This is a very useful beverage in cases of inflammation of the lungs, recent coughs, the measles, gravel, inflammation of the bladder, and strangury.

The following TABLE will enable the Reader to proportion the Doses of Medicines to the Age of the Patient, and to administer the Medicines which are omitted in the preceding Part, on account of being seldom used in Domestic Medicine.

The Doses specified in the columns are such as are usually administered; they should therefore be increased or diminished according to the STRENGTH and HABITS of the patient, and the age, by the following rule:

Two-thirds of the dose, from the age of 14 to 16.—One-half, from 7 to 10.—One-third, from 4 to 6.—One-fourth, to one of 3 years.—One-eighth, to one of a year.

MEDICINES.	DOSES.		Proper Vehicle, &c.	Effects, &c.	Diseases;—proper for
	Adults.	Children, from 2 to 4 years.			
Æther	30 dps. to 1 dm.	8 to 10 drops	cold water	antispasmodic .	asthma, cramp, & flatulence
Æthiops mineral . . .	15 to 30 grains	5 to 10 grains	honey, twice a day	alterative .	scald head, cutan. foulness
Almonds, emulsion of	a wineglassful	1 to 2 ta. spfs.	every 2 or 3 hours	demulcent .	strangury, cough
— oil of	1 to 3 drms.	30 dps. to 1 dm.	honey, ditto	ditto .	ditto, ditto
Aloes, Socotrine . . .	10 to 20 grains	3 to 6 grains	in pills .	purgative .	obstinate costiveness
— tincture of	3 to 6 drms.	1 to 2 drms.	water .	ditto and vermifuge .	ditto and worms
Alum powder	3 to 10 grains	. . . . .	ditto, 3 times a day	astringent .	flooding
Amber, rectified oil of	8 to 10 drops	1 to 3 drops	honey, twice a day	antispasmodic .	hysteric fits, hooping cough
Ammoniac gum	10 to 15 grains	. . . . .	in pills, ditto	expectorant .	chronic cough, asthma, &c.

MEDICINES.	DOSES.		Proper Vehicle, &c.	Effects, &c.	Diseases;—proper for
	Adults.	Children, from 2 to 4 years.			
Ammoniac gum, milk of	3 tablesp. fuls	a dessertsp. ful	2 or 3 times a day	expectorant	chronic cough, asthma, &c.
Antimonial powder	from 3 to 5 grs.	1 to 3 grains	honey	sudorific	inflamm. fever, pleurisy, &c.
— wine (as an emetic)	2 to 4 drms.	1 to 3 drms.	water	emetic	
— wine (as an alterative)	12 to 20 drops	4 to 8 drops	barl. wat. twice a day	sudorific	St. Anth. fire, cutan. foulness
Aromatic confection	15 to 30 grains	4 to 8 grains	cinnam. wat. 2 or 3 do.	astriquent and cordial	purging, cramp in the stom.
— species	5 to 10 grains	2 to 3 grains	water, ditto	stomachic	indigestion, flatulence
Asafoetida emulsion	4 to 8 drms.	2 teaspoonfuls	every 3 or 4 hours	antispasmodic	hyster. asthma, hoop. cough
— tincture of	30 to 60 drops	8 to 12 drops	water, ditto	ditto	ditto, ditto, ditto
— volat. spirit of	20 to 40 drops	4 to 8 drops	ditto, ditto	ditto	ditto, and fainting
— pill	10 to 15 grains	.	in pills, twice a day	ditto	ditto, ditto
Balsam of copaiva	20 to 40 drops	6 to 8 drops	in honey, ditto	diuretic and balsamic	whites, gleet, gravel
— of Peru	5 to 10 drops	.	ditto, ditto	stimulant	flatulence, asthma, gleet
— traumatic	20 to 40 drops	.	ditto or sugar, ditto	ditto	ditto
— tolu, tincture of	30 to 60 drops	.	ditto or water, ditto	ditto and pectoral	ditto, and chronic cough
Bark, Peruvian, powder	20 to 60 grains	10 to 15 grains	mint-wa. 4 or 6 times	tonic	ague, indigestion, weakness
— decoction of	3 to 4 ta.sp.fs.	1 to 2 ta.sp.fs.	3 or 4 times a day	ditto	relaxation and weakness
— essential salt of	5 to 10 grains	2 to 3 grains	Port wine, ditto	ditto	ditto, ditto
— tincture of	2 to 4 drms.	40 to 60 drops	water, ditto	ditto	ditto, ditto
— ditto, Huxham's	2 to 4 drms.	40 to 60 drops	ditto, ditto	ditto	ditto, ditto
— ditto, volatile	1 to 2 drms.	10 to 20 drops	ditto, ditto	ditto	indigestion, heartburn
Basilic powder	20 to 25 grains	6 to 8 grains	honey, twice a week	vermifuge & cathartic	worms, costiveness, dropsy
Calomel	1 to 2 grains	half to 1 grain	in a pill, twice a day	alterative	ven. disease, foul ulcers, &c.
Camphire	2 to 4 grains	1 to 2 grains	ditto, ditto	antispasmodic	hooping-cough, convuls. fits
— julep of	2 to 4 ta.sp.fs.	3 to 4 drms.	three times a day	ditto and febrifuge	nervous fever, ditto, ditto

	2 to 3 drms.		water, ditto	ditto	ditto	ditto	ditto
— tincture of	2 to 3 drms.	•	water, ditto	•	ditto	ditto	ditto
Cardamoms, tincture of	2 to 3 drms.	•	ditto, ditto	•	stimulant	ditto	ditto, & cramp
— comp. ditto	2 to 4 drms.	•	camomile tea, ditto	•	stomachic	ditto	ditto
Castor, Russian, powd. of	5 to 10 grains	3 to 5 grains	camphorated julep, do.	•	antispasmodic	convuls. fits, nerv. irritability	
— tincture of	1 to 2 drms.	15 to 30 drops	ditto ditto, ditto	•	ditto	ditto	ditto
Castor oil	4 to 8 drms.	3 to 4 drms.	mint-water	•	purgative	colic, costiveness	
— cold expressed	4 to 10 drms.	3 to 5 drms.	ditto	•	ditto	ditto	
Cascarilla powder	10 to 20 grains	3 to 6 grains	ditto, 3 times a day	•	stomachic	indigestion, weakness	
— tincture of	1 to 3 drms.	20 to 30 drops	water, ditto	•	ditto	ditto	
— volatile ditto	40 to 60 drops	•	ditto, ditto	•	ditto	gout, flatulence, heartburn	
Catechu, tincture of	1 to 2 teaspf.	10 to 20 drops	mint-water, ditto	•	astrigent	chronic looseness, flooding	
Chalk, prepared	10 to 15 grains	4 to 6 grains	ditto, 4 times a day	•	ditto	looseness, acidity	
Camomile flowers, powder of	10 to 20 grains	6 to 10 grains	mint - water, 2 or 3	[times a day]	stomachic & vermifuge	indigestion, worms, &c.	
— tincture of, &							
ginger	10 to 40 drops	•	water, 3 or 4 ti. a day	•	stomachic	gout, cramp in the stomach	
Cinnamon powder	5 to 10 grains	2 to 4 grains	ditto, 3 times a day	•	ditto	indigestion, flatulence, &c.	
— essence of	3 to 10 drops	1 drop	water	•	stimulant	flatulency, colicky pains	
— tincture of	3 to 4 drms.	20 to 30 drops	ditto	•	astrigent	looseness, &c.	
Columbo powder	10 to 20 grains	3 to 5 grains	mint-water, 3 ti. a day	•	stomachic	indigestion, chronic looseness	
— tincture of	1 to 3 drms.	10 to 20 drops	ditto, ditto	•	ditto	ditto	
Crabs' claws, prepared	15 to 20 grains	5 to 10 grains	do. every 3 or 4 hours	•	astrigent	purging, dysentery, acidity	
Cretaceous powder, with opium	10 to 20 grains	5 to 8 grains	ditto, ditto	•	ditto	obstinate purg. & dysentery	
Contrayerva powder	20 to 40 grains	6 to 10 grains	water, ditto	•	sudorific	recent colds	
— compound	30 to 40 grains	8 to 12 grains	mint-water, ditto	•	ditto and astrigent	purging of children	
Cream of tartar	1 to 4 drms.	20 to 30 grains	honey, every morning	aperient and alterative		inflam. erupt. of the skin, &c.	

MEDICINES.	DOSES.		Proper Vehicle, &c.	Effects, &c.	Diseases;—proper for
	Adults.	Children, from 2 to 4 years.			
Colocynth pill, comp.	10 to 20 grains	4 to 8 grains	occasionally . . .	active purgative . .	costiveness
— extract	10 to 15 grains	4 to 6 grains	ditto . . .	ditto . . .	obstinate ditto, or colic
— powder	10 to 15 grains	. . .	ditto . . .	ditto . . .	ditto
Dover's powder	10 to 20 grains	3 to 6 grains	in water . . .	sudorific and anodyne	rheumatism, recent colds, &c.
Elixir of vitriol	10 to 12 drops	5 to 6 drops	ditto, twice a day . .	stomachic . . .	indigestion, flatulence, vomit
Electuary, lenitive	2 to 3 drms.	half to 1 drm.	occasionally . . .	gentle aperient . .	costiveness
Epsom salt	4 to 8 drms.	2 to 3 drms.	mint-water . . .	ditto . . .	ditto
Foxglove powder	half to 3 grains	. . .	ditto [4 times a day	violent purgative and	dropsy
— tincture of	10 to 40 drops	. . .	decoct. of liverwt. 3 or	sedative . . .	consumption of the lungs
Gentian, tincture of	1 to 2 drms.	12 to 30 drops	water, ditto . . .	stomachic . . .	indigestion, flatulence, &c.
— extract of	5 to 10 grains	. . .	in a pill, twice a day	ditto . . .	ditto, ditto
Ginger powder	20 to 60 grains	. . .	water, ditto . . .	stimulant . . .	gout, indigestion, flatulence
— lozenges of . . . . .	. . . 3 or 4 . . .	. . .	twice a day . . .	ditto . . .	flatulency
— tincture of	1 to 2 drms.	. . .	water, ditto . . .	ditto . . .	ditto
Guaiac gum	5 to 15 grains	. . .	in pill, ditto . . .	ditto and sudorific . .	chronic rheumatism, gout
— volatile tincture	1 to 3 drms.	. . .	water, 2 or 3 ti. a day	ditto . . .	ditto, ditto
Hartshorn, spirit of	20 to 40 drops	5 to 8 drops	ditto, ditto . . .	stimulant . . .	hysterics, convul. heartburn
— burnt prepar.	20 to 40 grains	6 to 10 grains	mint-water, ditto . .	astrigent . . .	purging, acidity, heartburn
Hoffman's anod. liquor	30 to 40 drops	6 to 10 drops	water, ditto . . .	antispasmodic . .	nerv. fever, asthma, hysterics
Hemlock, powdered	2 to 3 grains	1 to 2 grains	mint-water, ditto . .	sedative . . .	hooping-cough, cancer
— extract of	2 to 3 grains	1 to 2 grains	ditto, or pill, ditto . .	ditto . . .	ditto, ditto
Hiera piera	15 to 20 grains	4 to 8 grains	mint-water . . .	purgative & stomachic	costiveness, flatulency
— tincture of	2 to 4 drms.	30 to 40 drops	water . . .	ditto, ditto, & vermifu.	ditto, ditto, and worms
Jalap powder	20 to 30 grains	5 to 10 grains	mint-water . . .	active purgative . .	costiveness

	20 to 30 grains 4 to 8 drms.	30 to 60 grains 5 to 10 drms.	60 to 120 grains 10 to 20 drms.	120 to 240 grains 20 to 40 drms.	240 to 480 grains 40 to 80 drms.	480 to 960 grains 80 to 160 drms.	960 to 1920 grains 160 to 320 drms.	1920 to 3840 grains 320 to 640 drms.	3840 to 7680 grains 640 to 1280 drms.	7680 to 15360 grains 1280 to 2560 drms.	15360 to 30720 grains 2560 to 5120 drms.	30720 to 61440 grains 5120 to 10240 drms.	61440 to 122880 grains 10240 to 20480 drms.	122880 to 245760 grains 20480 to 40960 drms.	245760 to 491520 grains 40960 to 81920 drms.	491520 to 983040 grains 81920 to 163840 drms.	983040 to 1966080 grains 163840 to 327680 drms.	1966080 to 3932160 grains 327680 to 655360 drms.	3932160 to 7864320 grains 655360 to 1310720 drms.	7864320 to 15728640 grains 1310720 to 2621440 drms.	15728640 to 31457280 grains 2621440 to 5242880 drms.	31457280 to 62914560 grains 5242880 to 10485760 drms.	62914560 to 125829120 grains 10485760 to 20971520 drms.	125829120 to 251658240 grains 20971520 to 41943040 drms.	251658240 to 503316480 grains 41943040 to 83886080 drms.	503316480 to 1006632960 grains 83886080 to 167772160 drms.	1006632960 to 2013265920 grains 167772160 to 335544320 drms.	2013265920 to 4026531840 grains 335544320 to 671088640 drms.	4026531840 to 8053063680 grains 671088640 to 1342177280 drms.	8053063680 to 16106127360 grains 1342177280 to 2684354560 drms.	16106127360 to 32212254720 grains 2684354560 to 5368709120 drms.	32212254720 to 64424509440 grains 5368709120 to 10737418240 drms.	64424509440 to 128849018880 grains 10737418240 to 21474836480 drms.	128849018880 to 257698037760 grains 21474836480 to 42949672960 drms.	257698037760 to 515396075520 grains 42949672960 to 85899345920 drms.	515396075520 to 1030792151040 grains 85899345920 to 171798691840 drms.	1030792151040 to 2061584302080 grains 171798691840 to 343597383680 drms.	2061584302080 to 4123168604160 grains 343597383680 to 687194767360 drms.	4123168604160 to 8246337208320 grains 687194767360 to 1374389534720 drms.	8246337208320 to 16492674416640 grains 1374389534720 to 2748779069440 drms.	16492674416640 to 32985348833280 grains 2748779069440 to 5497558138880 drms.	32985348833280 to 65970697666560 grains 5497558138880 to 10995116277760 drms.	65970697666560 to 131941395333120 grains 10995116277760 to 21990232555520 drms.	131941395333120 to 263882790666240 grains 21990232555520 to 43980465111040 drms.	263882790666240 to 527765581332480 grains 43980465111040 to 87960930222080 drms.	527765581332480 to 1055531162664960 grains 87960930222080 to 175921860444160 drms.	1055531162664960 to 2111062325329920 grains 175921860444160 to 351843720888320 drms.	2111062325329920 to 4222124650659840 grains 351843720888320 to 703687441776640 drms.	4222124650659840 to 8444249301319680 grains 703687441776640 to 1407374883553280 drms.	8444249301319680 to 16888498602639360 grains 1407374883553280 to 2814749767106560 drms.	16888498602639360 to 33776997205278720 grains 2814749767106560 to 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MEDICINES.	DOSES.		Proper Vehicle, &c.	Effects, &c.	Diseases;—proper for
	Adults.	Children, from 2 to 4 years.			
Nutmegs, spirit of . . .	4 to 6 drms.	1 to 2 drms.	water . . .	carminative . . .	flatul. cramp in the stomach
Opiate confection . . .	10 to 20 grains	3 to 6 grains	bolus . . .	ditto, and opiate . . .	purging, gripes, &c.
Opium, purified . . .	1 to 2 grains	quarter grain	pill . . .	anodyne . . .	restlessn. acute pains, asthm.
— tincture of . . .	10 to 30 drops	3 to 5 drops	mint-water . . .	ditto . . .	ditto, ditto, ditto
Oyster shells, prepared	10 to 20 grains	5 to 8 grains	ditto, 4 times a day	absorbent & astringent	purging, acid. in stomach, &c
Paregoric elixir . . .	3 to 4 drms.	15 to 20 drops	barley-water, ditto . . .	anodyne . . .	cough, asth. pain in the bow.
Peppermint, essence of	3 to 6 drops	1 to 2 drops	water . . .	carminative . . .	colicky pain, flatulency, &c
Poppies, white, extr. of	5 to 10 grains	1 to 3 grains	in a pill . . .	anodyne . . .	spasms, acute pain, cough
— syrup of . . .	1 to 4 drms.	a teaspoonful	water . . .	ditto . . .	ditto, ditto, ditto
Quassia, tincture of . . .	30 to 60 drops	10 to 12 drops	ginger tea, 2 or 3 times	stomachic . . .	indigestion, flatulency
Rhatany powder . . .	10 to 40 grains	5 to 8 grains	mint-wa. every 2 hours	tonic . . .	ague, diabetes
— tincture of . . .	2 to 4 drms.	30 to 40 drops	ditto, 3 times a day	stomachic . . .	indig. relaxation, whites, &c
— comp. ditto . . .	2 to 4 drms.	30 to 40 drops	ditto, ditto . . .	ditto, and cordial . . .	ditto, ditto, ditto
— aromatic ditto	2 to 4 drms.	30 to 40 drops	ditto, ditto . . .	ditto, ditto . . .	ditto, ditto, ditto
Rhubarb powder . . .	20 to 30 grains	5 to 8 grains	in mint-water . . .	aperient . . .	costiveness
— tincture of . . .	4 to 6 drms.	1 to 2 drms.	ditto . . .	ditto, & carminative	ditto, colic, &c.
— bitter ditto . . .	2 to 3 drms.	3 to 4 drops	wat. once or tw. a day	aperient & stomachic	indigestion, flatulency, &c.
— lozenges with ginger	. . . 2 or 3 . . .	. . . 1 . . .	twice a day . . .	stomachic . . .	ditto, ditto
Rochelle salt . . .	6 to 12 drms.	2 to 4 drms.	mint-water . . .	aperient . . .	costiveness
Roses, infusion of . . .	1 to 2 ounces	3 to 4 drms.	2 or 3 times a day . . .	stomachic & astringent	indigestion, flooding, &c.
— conserve of . . .	1 to 2 drms.	1 drachm . . .	ditto . . .	ditto, and pectoral . . .	cough
Saffron, tincture of . . .	1 to 2 drms.	30 to 40 drops	water . . .	cordial . . .	lowness of spirits
— syrup of . . .	2 to 3 drms.	a teaspoonful	ditto . . .	ditto . . .	ditto
Salt, Glauber's . . .	6 to 12 drms.	3 to 4 drms.	mint-water . . .	purgative . . .	costiveness. &c.

Cucurbitum . . .	9 to 12 drms.	2 to 4 drms.	ditto . . .	cooling aperient . . .	ditto . . .	feverish heats . . .
Polychrest . . .	1 to 3 drms.	30 to 40 grains	ditto . . .	gentle aperient . . .	ditto . . .	costiveness, &c. . .
tasteless . . .	6 to 12 drms.	2 to 3 drms.	in gruel or broth . . .	alkaline . . .	ditto . . .	heartburn, rickets . . .
of tartar . . .	8 to 10 grains	1 to 4 grains	mint-water . . .	ditto . . .	ditto . . .	ditto, ditto . . .
of wormwood . . .	8 to 10 grains	1 to 4 grains	ditto . . .	alterative . . .	ditto . . .	scrophula, &c. . .
Sarsaparilla powder . . .	20 to 60 grains	5 to 10 grains	ditto, 2 or 3 times a day . . .	ditto . . .	ditto . . .	obstinate costiveness . . .
comp. decoct. . .	3 to 4 ounces	1 to 2 ounces	3 or 4 times a day . . .	strong purgative . . .	ditto . . .	ditto . . .
Scammony powder . . .	10 to 15 grains	4 to 5 grains	mint-water . . .	ditto . . .	ditto . . .	ditto, worms, and dropsy . . .
comp. ditto . . .	15 to 30 grains	5 to 6 grains	ditto . . .	ditto, and vermifuge . . .	ditto . . .	costiveness and worms . . .
comp. with calomel . . .	15 to 25 grains	5 to 6 grains	honey . . .	purgative . . .	ditto . . .	ditto, and colic . . .
Senna, infusion of . . .	2 to 3 ounces	3 to 4 drms.	occasionally . . .	ditto . . .	ditto . . .	ditto, and piles . . .
tincture of . . .	6 to 12 drms.	2 to 3 drms.	water . . .	ditto . . .	ditto . . .	recent cough . . .
Soluble tartar . . .	4 to 6 drms.	1 to 2 drms.	mint-water . . .	demulcent . . .	ditto . . .	ditto, inflam. fever, pleurisy . . .
Spermaceti powder . . .	1 drachm	20 to 30 grains	honey, 3 or 4 ti. a day . . .	sudorific and cooling . . .	ditto . . .	nervous debility, flatul. &c. . .
Spirit, Mindererus's . . .	half an ounce	1 drachm	mint-water, ditto . . .	antispasm. & carmin. . .	ditto . . .	strangury, gravel, fevers . . .
of vitriol, sweet . . .	20 to 40 drops	6 to 8 drops	ditto, ditto . . .	diuretic and febrifuge . . .	ditto . . .	hysteric and fainting fits . . .
nitre . . .	15 to 30 drops	6 to 8 drops	barley-water . . .	stimulent . . .	ditto . . .	ditto . . .
sal ammoniac . . .	15 to 30 drops	6 drops	water . . .	ditto . . .	ditto . . .	ditto . . .
sal volatile . . .	20 to 30 drops	6 drops	ditto . . .	alterative . . .	ditto . . .	scrophula . . .
sal vol. fetid . . .	20 to 40 drops	6 drops	ditto . . .	ditto . . .	ditto . . .	wen . . .
Sponge, burnt . . .	20 to 30 grains	10 to 15 grains	honey, twice a day . . .	expectorant & diuretic . . .	ditto . . .	dropsy, asthm. chron. cough . . .
lozenges of . . .	1 to 3 . . .	1 . . .	twice a day . . .	ditto . . .	ditto . . .	dropsy, chronic cough, asth. . .
Squills, powder of . . .	2 to 3 grains	1 drachm	in a pill, twice a day . . .	ditto . . .	ditto . . .	ditto, ditto, ditto . . .
oxymel of . . .	2 to 4 drms.	6 to 10 drops	mint-water, ditto . . .	ditto . . .	ditto . . .	ditto, ditto, ditto . . .
tincture of . . .	30 to 40 drops	1 to 2 . . .	ditto, ditto . . .	tonic . . .	ditto . . .	indigest. rickets, worms, &c. . .
lozenges of . . .	3 to 6 . . .	3 to 6 drops	twice a day . . .	ditto . . .	ditto . . .	ditto, ditto, ditto . . .
Steel, muriated tinct. of . . .	10 to 30 drops	3 to 6 drops	water, twice a day . . .	ditto . . .	ditto . . .	ditto, ditto, ditto . . .

MEDICINES.	DOSES.		Proper Vehicle, &c.	Effects, &c.	Diseases;—proper for
	Adults.	Children, from 2 to 4 years.			
Steel, wine of . . .	3 to 6 drms.	1 to 2 drms.	water, twice a day .	tonic .	indigest. rickets, worms, &c.
— salt of . . .	1 to 3 grains	half a grain	pill, ditto .	ditto .	ditto, ditto
— powder of . . .	10 to 40 grains	4 to 6 grains	honey, ditto .	ditto .	ditto, ditto
— red sulphate of .	3 to 12 drops	1 to 2 drops	water .	ditto .	ditto, ditto
Sulphur, flowers of .	1 to 2 drms.	20 to 30 grains	honey, once a day .	alterative & aperient	cutaneous foul. piles, worms
— milk of . . .	1 to 2 drms.	20 to 30 grains	ditto, ditto .	ditto .	ditto, ditto
Syrup of white poppies	2 to 4 drms.	1 to 2 drms.	2 or 3 times a day .	anodyne .	coughs, restless. irritat. fever
— buckthorn . . .	2 to 4 drms.	1 teaspoonful	mint-water .	strong cathartic .	costiveness
— ginger . . .	2 to 3 drms.	1 drachm .	water .	carminative .	flatul. cramp in the stomach
Tartar, emetic . . .	1 to 2 grains	$\frac{1}{4}$ to $\frac{1}{2}$ grain	ditto .	emetic .	worms
Tin powder . . .	20 to 40 grains	10 to 15 grains	honey, every morning	vermifuge .	costiveness, worms
Tincture of aloes . .	3 to 6 drms.	1 to 2 drms.	water .	purgative .	hysterics, asth. hoop. cough
— asafoetida . . .	30 to 60 drops	4 to 8 drops	ditto, twice a day .	antispasmodic .	flatulence, asthma
— benzoin . . .	15 to 30 drops	6 to 8 drops	honey, ditto .	stimulant .	hooping-cough
— cantharides . . .	10 to 30 drops	6 to 8 drops	barley-wat. twi. a day	diuretic .	indigestion, flatulence
— cardamoms . . .	2 to 4 drms.	half a drachm	camomile tea, ditto	stomachic .	ditto, ditto
— compound do. . .	2 to 4 drms.	half a drachm	ditto, thrice a day	ditto .	ditto, ditto, gout
— cascarilla . . .	1 to 3 drms.	10 to 15 drops	water, ditto .	ditto .	purgings, relaxation
— catechu . . .	1 to 2 drms.	15 to 20 drops	mint-water, 3 ti. a day	astrigent & stomach.	indigestion, weakness, &c.
— Columbo . . .	1 to 2 drms.	10 to 20 drops	ditto, ditto .	stomachic .	ditto, ditto
— Peruvian bark . .	2 to 4 drms.	30 to 40 drops	ditto, ditto .	ditto .	ditto, ditto
— Huxham's do. . .	2 to 4 drms.	30 to 40 drops	ditto, ditto .	ditto, and cordial	ditto, ditto
— volatile ditto . .	1 to 2 drms.	10 to 20 drops	water, ditto .	ditto, ditto	ditto, ditto
— iron, muriated	10 to 30 drops	3 to 6 drops	ditto, ditto .	tonic .	ditto, rickets, and worms

	30 to 60 drops	5 to 6 drops	honey, twice a day	stimulant		ditto, gleet, whites, &c.
— guaiacum .	30 to 60 drops	5 to 6 drops	water, ditto	stimulant & sudorific		ditto, rheumatism, &c.
— ditto volatile	1 to 3 drms.		mint-water	brisk purgative		obstinate costiveness
— jalap .	2 to 4 drms.	1 drachm	water	cordial		lowness of spirits, fainting
— lavend. comp.	30 to 80 drops	15 to 20 drops	ditto, twice a day	strengthening		green sickness, debility, &c.
— myrrh .	1 to 2 drms.	10 to 15 drops	mint-water	anodyne		spasms, acute pains, &c.
— opium .	10 to 30 drops	3 to 5 drops	ditto	ditto		ditto, coughs, asthmas, &c.
— acetat.	20 to 40 drops	6 to 8 drops	ditto, three times a day	stomachic		indigestion, relaxation, &c.
— rhatany root	2 to 4 drms.	30 to 40 drops	ditto	ditto, and cordial		ditto, ditto
— ditto, comp.	2 to 4 drms.	30 to 40 drops	pill, twice a day	anodyne		hooping-cough
Tobacco, extract of .	2 to 4 grains	$\frac{1}{2}$ to 1 grain	honey, ditto	diuretic, &c.		gleet, fluor albus, gravel
Turpentine, Venice .	10 to 15 grains		ditto, ditto	ditto		ditto, gravel, rheumatism
— spirit of .	15 to 20 drops	4 to 8 drops	mint-wat. twice a day	anti-nervous		nervous head-ach, &c.
Valerian powder .	20 to 30 grains	6 to 8 grains	water, thrice a day	ditto		ditto
— tincture of .	1 to 3 drms.	10 to 30 drops	ditto	ditto		lowness of spirits, &c.
— volatile do.	40 to 80 drops	8 to 12 drops	ditto	ditto		indiges. flatulence, relaxation
Vitriol, acid elixir of .	8 to 12 drops	4 to 6 drops	camo. tea, twice a day	stomachic		ditto, ditto
Vitriolic acid, diluted	12 to 20 drops	7 to 10 drops	ditto	ditto		indigestion, worms, &c.
Wormwood, conserve of	1 to 2 drms.	$\frac{1}{2}$ to 1 drachm	twice a day	ditto, and vermifuge		heartburn, rickets
— salt of .	5 to 8 grains	1 to 4 grains	mint-wat. twice a day	alkaline		
Wine, antimonial .	2 to 4 drms.	1 to 2 drms.	water	emetic		
— of ipecacuan	4 to 8 drms.	2 to 3 drms.	ditto	ditto		
— rhubarb .	6 to 12 drms.	2 to 3 drms.	mint-water	aperient		costiveness, indigestion
— steel .	3 to 6 drms.	1 to 2 drms.	ditto, twice a day	tonic		debility, green sickn. whites

LIME-WATER.

LIME-WATER is made in the following manner:—Take of quick lime, four ounces; pure water, six pints. Mix, and set them aside in a *covered earthen* vessel for one hour, than pour off the clear water, and keep it in bottles well corked for use.

When weakness of the stomach is accompanied with acidity and flatulency, this water affords an excellent auxiliary vehicle, in the quantity of a wineglassful, for taking the compound tincture of ginger and camomile, No. 7, or the aromatic tincture of rhatany root.

Lime-water being capable of dissolving slime or mucus in the stomach and intestines, a redundancy of which affords a nidus or lodgment for worms, will considerably promote the efficacy of vermifuge medicines, in the dose of a teacupful two or three times a day. (See Basilic Powder.) Lime-water has been much celebrated as an alterative in scrofula and scurvy: in the latter case it has not supported its character, while in the former it is still recommended. The good effects produced by it in such cases, probably arise from its neutralising acidity in the stomach, and promoting digestion. In cases of purging, where the object is more to restrain than entirely to check it, lime-water will answer better than the chalk or cretaceous mixture. It may be given in the following form:

Take of lime-water, six ounces; compound tincture of cardamon seeds, half an ounce; liquid laudanum, thirty drops; white sugar, a quarter of an ounce: mix. Two or three tablespoonfuls to be taken three or four times a day.—The addition of a little lime-water to milk, makes it sit easy on weak stomachs; and with this admixture, in the proportion of a tablespoonful to half a pint, invalids have been able to take milk, after it has disagreed in every other form.

For weakly or ricketty children, particularly when the intestines are irritable and the bowels enlarged, lime-water is a very valuable medicine. (See Rickets.)

BARLEY-WATER.

Directions for making.

Take of pearl barley, two ounces; water, five pints; first wash the barley with some cold water, then boil it a short time with half a pint of water to extract the colouring matter; throw this away, and put the barley thus purified into five

pounds of boiling water, which is to be boiled down to one half, and then strained for use.

The compound barley-water, an excellent pectoral drink, is made in the following manner :

Take of barley-water, prepared as above, two pints; figs, dried, two ounces; liquorice root, sliced and bruised, half an ounce; raisins, stoned, two ounces; distilled water, one pint: boil to two pints, and strain.

These liquors afford a very excellent diluting beverage in cases of acute diseases, the former in inflammatory fevers, and the latter in inflammatory attacks of the chest, as pleurisy and inflammation of the lungs, recent coughs, &c. As their efficacy depends on their free use, it is of consequence that they should be prepared so as to be elegant and agreeable to the palate; for this reason the directions above have been inserted in the London Dispensatory, and the several circumstances which contribute to their elegance particularised, as the previous washing of the barley, and extraction of its colouring matter.

The addition of a little lemon or orange juice, or currant jelly, will take off the raw taste of barley-water, and in most instances promote its efficacy. However trivial medicines of this class may appear to be, they are of greater importance in the cure of *acute* diseases than many more elaborate preparations.

ALMOND EMULSION.

Directions for making :

Take of sweet almonds, six drachms; white sugar, two drachms; pure water, one pint: the almonds are to be first leached, by infusing them in boiling water, and afterwards peling them. They are then to be well beat in a marble mortar, with the sugar, to a smooth pulp, when the water is to be added by degrees, and the rubbing continued till they are well blended, when the mixture should be passed through fine muslin for use. Great care should be taken that the almonds are free from any rancid taste.

Trifling as this emulsion may appear to be, it is the most valuable medicated beverage we possess, and in cases of stranguary—inflammations of the lungs, bowels, kidneys, ureters, bladder, and urethra—pleurisy—recent coughs—and pulmonary consumption, is very superior to barley-water or linseed-oil. It may be taken in the same manner as directed for the preceding article (Barley-water).

For the coughs of children, and irritation of the bowels, arising from teething, or obstructed perspiration, this emulsion, with the compound tragacanth powder, in the proportion of a drachm to a pint, is an excellent drink; and in the quantity of twelve ounces, or a pint, in the course of the day, will nearly supply the place both of medicine and diet, for it not only quiets the system, but also nourishes it.

OF THE RHATANY ROOT.

This root, the produce of Peru, has but lately been introduced into the practice of medicine in this country, although it appears it has been long held in high estimation by the physicians in Spain, for its tonic or bracing powers. In its sensible qualities, it approaches nearer to the Peruvian bark than any other vegetable production we are acquainted with; and by the testimonies of those physicians and surgeons who have given it a trial in this country, it appears by no means inferior in its medicinal properties, but in many respects very superior. It is more grateful to the palate and stomach than Peruvian bark, and hence many patients have been able to persevere in its use that could not take Peruvian bark in any form.

In the cure of intermittents it has not been known to fail; and in several instances it has proved successful after the Peruvian bark, in full doses, had produced no effect.

On account of the grateful astringency of this root, the wine manufacturers in Portugal have long used it for the purpose of enriching Port wine; and, from the quantity used by them, it is not improbable that the medicinal property of that wine is principally derived from it.

From the success that has attended the exhibition of this medicine in my own practice, I can confidently assert, that it is a most valuable stomachic medicine, and very superior to any of the class of tonics.

In diseases that require the use of a tonic medicine, the rhatany may be administered in the same manner as directed for the Peruvian bark; see No. 48.

Of this root, the same preparations are kept as of the Peruvian bark—viz. the powder, the extract, and the simple, aromatic, and compound tinctures; the directions for the use of which are given in the table of drugs, page 92.

OF INDIAN ARROW ROOT.

The Indian arrow root has, of late years, been cultivated in considerable quantity in the East and West Indies. The fol-

lowing process for obtaining the fine powder, sold in this country, was communicated to me by a principal planter, for insertion in this work :—" The roots, when a year old, are dug up, well washed in water, and beaten in a large wooden mortar to a pulp. It is then thrown into a large tub of clean water, well stirred, and the fibrous part wrung out by the hands and thrown away. The milky liquor being passed through a lawn sieve or coarse cloth, is suffered to settle, and the clear water drained off. The white mass left at the bottom is again mixed with clean water, and strained; lastly, the mass is dried on sheets in the sun for use."

This powder, boiled in water, forms a very pleasant transparent jelly, very superior to that of sago or tapioca, and is much recommended as a nutritious diet for children and invalids. The jelly is made in the following manner: to a dessertspoonful of the powder, add as much cold water as will make it into a paste, then pour on half a pint of boiling water, stir it briskly, and boil it a few minutes, when it will become a clear smooth jelly: a little sugar and sherry wine may be added for debilitated adults; but for infants a drop or two of essence of carraway seeds or cinnamon is preferable, wine being very liable to become acid in the stomachs of infants, and to disorder the bowels. Fresh milk, either alone or diluted with water, may be substituted for the water. For very debilitated frames, and especially for ricketty children, this jelly, blended with an animal jelly, as that of the stag's horn, affords a more nutritious diet than arrow root alone, which may be done in the following manner: boil half an ounce of the true stag's horn* shavings in a pint of water for fifteen minutes, then strain, and add two dessertspoonfuls of arrow root powder (previously well mixed with a teacupful of water), stir them briskly together, and boil them for a few minutes. If the child should be much troubled with flatulency, from three to six drops of essence of carraway seeds, or a little grated nutmeg, may be added; but for adults, Port wine or brandy will answer best.

By this diet, I am well persuaded many children have been reared, which, had they been kept on the breast and the customary spoon meat, would have died. One lady in particu-

* Great care should be taken that the true stag's or hart's horn shavings be employed, as the shavings of the bleached bones of the calf, on account of being whiter and much cheaper, are generally sold for them. The latter do not impart so strong or wholesome a jelly as the stag's horn, the bones being nearly deprived of their glutinous property, by the process they undergo for the purpose of rendering them white.

100 SASSAFRAS NUT.—PREPARED CHARCOAL.

lar that adopted it, has now two children living, in perfect good health, after having lost five, either by convulsions or bowel complaints.

It is very similar to mother's milk, and, no doubt, very superior to the milk of an unhealthy woman.

Through the extravagant high price, of six shillings a pound at which this powder is sold, its consumption has been chiefly confined to opulent families. In order, however, that no class of invalids may be precluded from its use, I have directed it to be retailed at *four shillings* a pound, at the Chemical and Medical Hall, in Bedford-street, Covent-garden; and as it is received in the original packages, from one of the most respectable planters in the West Indies, I can take upon myself to say, that it is perfectly genuine, and equal, if not superior in quality, to that sold at double the price.

SASSAFRAS NUT.

The nut of the sassafras tree is very similar to the cocoa-nut and in a ground state resembles chocolate. It also possesses the virtues of the sassafras bark and root, which have been long held in great estimation for correcting vitiated constitutions. The aromatic quality, which is very grateful to the palate, promotes digestion, and is at the same time an excellent remedy for flatulence; hence it becomes a valuable article of diet for a variety of invalids, and experience has proved that it recruits exhausted strength more rapidly than the farinaceous substance or jellies. In cases of indigestion, chronic eruptions of the skin, scrofula, asthma, consumption of the lungs, chronic rheumatism, and gout, it affords a very excellent breakfast and supper.

PREPARED CHARCOAL.

The properties of charcoal, as a dentifrice, were noticed in the first edition of this work, under the title of *Carbonic Powder*; since which it has been very generally employed for the purpose of cleaning the teeth.

Well-calcined charcoal, reduced to a fine powder, is, no doubt, a very innocent and excellent tooth-powder. It gives the enamel a fine, healthy, white appearance, destroys the offensive effluvia arising from carious teeth, and will not only prevent caries of the enamel, but even arrest its progress after it has taken place; and it is worthy of remark, that people who have been great sufferers by tooth-ach, have not exper-

anced the least relapse after the regular use of this powder. It is likewise very efficacious in destroying unpleasant tastes in the mouth, and for cleaning the tongue in cases of putrid breath, sore-throat, and indigestion. The charcoal, prepared from the Areca nut, has been held in high estimation among the Indians; and Dr. Lind, late of Bengal, states, that by its use he has preserved all his teeth perfectly sound, although he has arrived to the age of eighty: and several very respectable gentlemen who have resided many years in the East Indies, have assured me that it is esteemed a great preserver of the teeth, and a certain preventive against the tooth-ach. The charcoal of the Areca nut (generally termed Betel nut in this country) certainly affords a more solid powder than that of wood, and therefore, for the purpose of cleaning the teeth, is more efficacious. It also possesses an alkalescency, which softens the matter that adheres to the teeth more readily removed by the brush;—a property from which the common charcoal is entirely exempt.

On the very respectable authority of Dr. Lind, I was induced to give the Areca charcoal a trial; and, from long experience, have no hesitation in recommending its adoption in preference to that of wood.

It is become necessary to caution the public against the tooth powders recommended by many dentists, and particularly those sold by perfumers, which being composed of the most destructive minerals, may for a short time render the teeth white, but will ultimately prove very injurious by their mechanical action on the enamel. Indeed such is the mischief that uniformly follows their use, that the introduction of the Areca charcoal into this country may be considered a great desideratum; and, as soon as its valuable properties are known, will no doubt be generally adopted.

The tincture of rhatany root, mixed with a little water, forms a very excellent astringent lotion for the teeth, and should always accompany the use of the prepared charcoal, or any other dentifrice. This tincture, from its peculiar astringent power, braces and strengthens the gums, and its repeated use has often succeeded in fastening loose teeth. (See Tooth-ache).

Having examined the tooth-powder industriously advertised by several druggists, under the name of *Prepared Charcoal*, I can assert, that I have not found any to be genuine charcoal powder, but a composition of burnt oyster-shells, which in no respect resembles charcoal, and as a dentifrice must assuredly prove very hurtful. The spurious charcoal powder may be

known by being of a grey colour, whereas true charcoal is perfectly black.

Under the head of Tooth-ach, some further directions are given respecting the management of the teeth, and the principal causes of caries and tartareous concretions.

THE MEANS OF FUMIGATING INFECTED CHAMBERS, &c. AND PREVENTING THE PROGRESS OF CONTAGIOUS FEVERS.

For the important purpose of purifying the contaminated air of the wards and rooms of patients afflicted with contagious fevers, various means have been employed from the earliest period of medicine*. The acetic acid (vinegar) and different mineral acids have of late years been much used for this purpose, and ample experience has proved them to be efficacious. Dr. James Johnstone, of Worcester, in a dissertation on the malignant epidemical fever which prevailed in Kidderminster in 1756, asserts that he found vinegar, sprinkled about the room when the weather was warm, and boiled with myrrh or camphor, effectually to correct putrid effluvia. "The steams arising from the latter," the doctor asserts, "preserve the air from putrefaction, will insinuate themselves by the absorbent vessels of the lungs into the blood-vessels, and greatly assist in impeding the progress of putrefaction in the fluids," &c. The camphorated acetic acid, No. 38, evaporated in a saucer over the blaze of a candle, is not only more commodious, but, from the volatile nature and pungency of the acid, will have a more rapid action on contagious or putrid effluvia.

Citizen Guyton Morveau recommends the muriatic gas, which he found particularly efficacious in correcting the putrefaction of dead animal matter in the church of Dijon. For fumigating *uninhabited* rooms, the muriatic acid gas may answer much better than the steams of vinegar or nitrous gas; but as it considerably irritates the lungs, and is unfit for respiration, it is not proper for the apartments of the sick. Dr. Johnstone also recommends this gas in a slight degree; but, on account of its being unpleasant for respiration, he preferred the employment of vinegar†.

* Hippocrates, upwards of two thousand years ago, directed herbs and nitre to be boiled in vinegar in the chambers of the sick.

† The evaporation of vinegar in the rooms of the sick was a common practice in this country long anterior to Dr. Johnstone's publi-

For disengaging the muriatic acid gas, citizen Guyton Morveau gives the following directions:—"Put into the middle of the place which is to be purified, a chafing-dish, on which a half filled with sand and ashes is to be laid, on which a glass or earthen bowl, containing common salt, is to be placed; the sand being heated, pour on the salt, at once, vitriolic acid, and retire immediately—the windows and doors should be exactly shut. The proportion for a high and spacious ward, containing twenty beds, is, of common salt, nine ounces six drachms, and of vitriolic acid, seven ounces seven drachms (by weight), which quantities are to be augmented or diminished according to the space of the room to be purified." Inhabited rooms this author recommends to be fumigated with the oxygenated muriatic acid, which is made by adding black oxide of manganese in the following proportion:—Take of common salt, two parts; black oxide of manganese, one part; vitriolic acid, two parts: after rubbing the salt and manganese together in a glass mortar, place the mixture in an open glass vessel in the infected chamber, and pour on it the vitriolic acid. The fumes are immediately exhaled and diffused through the atmosphere of the room, and effectually destroy putrid particles or contagious matter.

The nitrous acid gas is preferred by Dr. James Carmichael Smyth, who directs it to be used in the following manner:—"Take fine sand, and heat it in an iron ladle or shovel; when made very hot, fill with it an earthen quart pipkin, in which immerse a common teacup, containing about half an ounce of vitriolic acid, to which, when it has acquired a small degree of heat, gradually add the same quantity of purified nitre in powder; stir the mixture with a slip of glass until the vapour rises in considerable quantity. The pipkin is then to be carried about the room (the doors, windows, &c. being closely shut), occasionally putting it under the bed, and in every corner and place where any foul air may be supposed to lodge: the fumigation to be continued till the room be filled with the vapour, which will appear like a thick haze."

In very malignant cases it should be repeated twice a day; but otherwise, once will be sufficient; which should be regularly continued for some days after the contagion is supposed to be destroyed. If the vapour irritate the lungs, so as to

ation: but it appears that the doctor was the first who employed the muriatic acid gas, although citizen Guyton Morveau, in his publication, claims the priority of the discovery. Citizen Guyton, however, did not use it till the year 1773; whereas it is recommended by Dr. Johnstone in his dissertation, published in 1758.

excite much cough, fresh air should be admitted, by opening the doors or windows of the room. After a few repetitions, this effect will not, however, be produced; but, on the contrary, it will be found agreeable and refreshing. It must be particularly remembered that no wood or metal should be employed in the process, otherwise *dangerous* and *offensive* vapours will be disengaged with the nitrous. Proper attention should likewise be paid to cleanliness in the apartments, clothes, and bedding.

The nitrous vapours, thus disengaged, not only destroy the subtile infectious particles arising from putrid bodies, or from persons labouring under contagious fevers, as effectually as the muriatic gas recommended by citizen Guyton Morveau, but also communicate to the atmosphere an animating principle, which, by respiration, enters the system in such quantity, as evidently to invigorate the vital powers and cheer the mind, and thus they prove more beneficial than medical men are generally aware of. The oxygenated muriatic acid of citizen Guyton has a similar effect, and was preferred by Mr. Cruickshank, on the supposition of its being more efficacious, as well as more pleasant to respire.

In order more effectually to resist the effects, and check the progress of infection, the following rules should be particularly enforced.

1st, None should be permitted to visit patients labouring under infectious disorders, but those who are impelled by the calls of duty, affection, or necessary business.

2dly, None should be admitted *fasting* or *before* breakfast. The afternoon is the fittest part of the day for visits of this kind; or if they must be paid in the morning, a glass or two of Port or Madeira, or a dose of compound tincture of bark, or rhatany root, ought previously to be drank. A handkerchief sprinkled with camphorated acetic acid, held occasionally to the nose, is also an useful precaution to those who visit infected persons. Smoking may also be of some service.

3dly, The utmost attention to *cleanliness* in *every thing* relative to the patient, should be observed. This is particularly requisite in camps, hospitals, poor-houses, gaols, &c. The frequent change of linen, and the *immediate removal* of every thing of an *offensive nature* are absolutely necessary.

4thly, The free admission of *pure* atmospheric air* is indis-

* The atmosphere is not, as was formerly supposed, a simple elementary body, but consists of two very different kinds of air, the one eminently conducive to the purposes of life, named oxygen; the other, which is nearly three-fourths of the whole, destructive of life,

essentially requisite. The absolute necessity for this caution is strikingly evinced by what is recorded to have happened at Philadelphia, in the yellow fever of 1793. Of 2000 persons who were removed to tents erected in the fields, only 17 died in 25 days; whilst out of an equal number in the city, 178 perished.

Fourthly, Attention ought to be paid to the *temperature* of the air. *Extreme heat* might increase the tendency to putrefaction, which exists in a greater or lesser degree in most infectious disorders. *Extreme cold*, on the other hand, is not only very disagreeable to the feelings of the sick, but, by its debilitating property, may increase the virulence, and extend the ravages of contagion.

Fifthly, When a person dies from an infectious distemper, the body should be removed, *as soon as possible*, into a room *appropriated to that use*: it should be then wrapped in a pitched cloth, and the friends of the deceased should be desired to proceed to interment as early as is consistent with propriety. Early burial was so much enforced during the plague at Marseilles, that Dr. Arbuthnot, in his treatise on air, asserts that it was early ascertained many were buried alive; a body apparently dead should not, therefore, be too hastily consigned to the grave, the natural heat and pure air of the earth being very powerful agents in restoring the vital functions, in case of their suspension.

Sixthly, As infection is liable to be communicated by clothes which have been worn by the sick, such clothes ought not to be used, until they have been well washed, and thoroughly disinfected.

Seventhly, After the recovery or decease of a person labouring under an infectious fever, the roof or walls of the apartment in which he lay ought to be white-washed, the windows kept open during the day, and flowers or herbs, immersed in water, placed in such parts of the room as are more immediately exposed to the action of the sun's rays upon them*.

I called azote. On a due admixture of these two component parts of the atmosphere, depends not only respiration, but the colour and circulation of the blood, and all the phenomena of life.

Whilst Dr. Priestley was engaged in a series of experiments to enable him to purify contaminated air, he discovered that vegetables answered this purpose most effectually. The experiment by which he illustrates the fact is this:—Having rendered a quantity of air very noxious, by mice breathing and dying in it, he divided it into two receivers inverted in water, introducing a sprig of mint into one of them, and keeping the other receiver, with the contaminated air in it, alone.

9thly, The establishment of fever wards, or houses of recovery, for the reception of persons attacked with infectious fevers, is an institution which reflects immortal honour on its founders, and is better adapted to check the ravages and prevent the recurrence of these maladies in large towns, than perhaps any other plan which has hitherto been devised.

It is worthy remark, that many very respectable practitioners in the West Indies, as well as on the continent of America, deny that the fevers which at times have proved so destructive in those places, were contagious; and Dr. John Vaughan, after investigating the cause and nature of the fever which prevailed with such violence in the borough of Wilmington, in North America, in the year 1802, concludes, contrary to the general opinion, that the disease was not imported, that it was not contagious, but that it depended upon some noxious state of the atmosphere, owing to certain putrid effluvia, which formed a constituent part of heavy fogs, that used to collect in the evening, and be suspended over the flats during the nights. Hence we find that fevers which are attributed to contagion, will make an equally rapid progress where guards have been placed, as they have been in Russia, and where high walls have been built to prevent communication; and some instances have happened of a great part of Europe, and some of Asia, Africa, and America, suffering from similar complaints nearly at the same time, from a very widely spreading noxious efflu-
vium in the air. Dr. Desgenette, physician to the French army in Egypt, and M. Assalini and Larray, having endeavoured to communicate the plague by infection without effect, were led to believe that the plague is not contagious; but such experiments are by no means satisfactory, for in all cases of infection, a certain state of constitution must exist to render the person susceptible of its action; hence those whose systems are perfectly healthy, or, as is technically termed, *not*

He found, about eight or nine days after, that the air of the receiver into which he had introduced the sprig of mint had become respirable; for a mouse lived very well in this, but died immediately upon being introduced into the other receiver, containing the contaminated air alone. All strongly-scented objects vitiate the air; and it has been satisfactorily proved by the experiments of Ingenhouz, Priestley, and others, that most plants emit during the night a large proportion of azotic or irrespirable gas: it is on this account that flowers suffered to remain all night in a bed-room, sometimes prove very deleterious in their effects. Nor is it less unhealthy to sleep in a room where a quantity of green fruit is constantly kept, as from its fragrance a portion of inflammable matter transpires, which soon impregnates the air.

redisposed to receive the contagion, may expose themselves to its influence with impunity.

The partial appearances of this fever, and its frequent occurrence at the same places, have induced some practitioners to suppose that it was produced by noxious vapours, or putrid miasmata disengaged from the earth. The French historian Dezeray, as quoted by the Honr. Mr. Boyle, states, "that a vapour broke out of the earth in the kingdom of Cathay, that caused fevers more fatal and universal than were ever before known, and that it consumed every thing before it, even the trees and stones." Hoffman, Sennertus, and many of the most respectable ancient physicians, have very justly observed, that the *fear** of contagion, under a *bad constitution of the air*, has been more productive of disease than the air itself, and it is to be feared, has been the cause of many unfortunate sufferers being lost for want of proper attention, and some even being buried alive.

Whatever the original source or nature of the contagion may be, after it enters the circulation, which is probably by respiration, like other specific poisons, it evidently generates a quantity in the system, which, by passing off by perspiration, contaminates the air; the means, therefore, recommended for purifying the air and ventilating the chamber, must considerably tend, not only to check its progress, but also to diminish its malignancy. (See Typhus Fever.)

THE MEANS OF COUNTERACTING THE EFFECTS OF THE DIFFERENT POISONS ON THE HUMAN BODY.

Of poisons there are three classes, viz. *mineral*, *vegetable*, and *animal*.

OF THE MINERAL POISONS.

Arsenic is the most powerful, and therefore, for the purpose

* A remarkable instance of the influence of the depressing passions, in this respect, has been lately noticed by Captain Philip Beaver, in a work entitled "African Memoranda." This intelligent author, speaking of the disease which prevailed among his men at Bulama, observes, "It is melancholy, no doubt, but many have absolutely died through fear. More courage, and greater exertions, I firmly believe, would have saved many of them; but a lowness of spirits, a general despondency, seems to possess every body. When taken ill, they lie down, and say they know they shall die; and, what is very remarkable, I have never yet known one recover after having, in such manner, given himself up."

of destroying life, is generally employed. The solutions of mercury, copper, lead, and antimony, in different acids, are likewise, in no great quantity, active poisons. To counteract the effects of any of the mineral poisons taken into the stomach, the liver of sulphur is the most efficacious medicine, which may be administered in the following manner: Dissolve a large tablespoonful of the liver of sulphur in a pint of warm water, and give the patient two tablespoonfuls of the solution as soon as possible, and repeat it every ten or fifteen minutes for three or four doses, or as occasion may require. If this preparation cannot be readily procured, a teaspoonful of sulphur, with eight or ten grains of salt of wormwood, will afford the best substitute.

Either the liver of sulphur, or salt of wormwood, by uniting with the acid of corrosive sublimate of mercury and the metallic salts, decomposes them, and precipitates the metal in the form of a calx, nearly or wholly inactive. It will likewise be proper to dilute plentifully with warm water, and to excite vomiting, by giving, with the first dose of either of the above medicines, or as soon after as possible, two scruples of ipecacuan powder, and to hasten its operation by irritating the fauces with the finger or a feather. Oil and milk may likewise be given with a view to blunt its acrimony. If neither liver of sulphur nor salt of wormwood can be readily procured, ten grains of pearl or pot-ash may be employed, or half a tablespoonful of soap lees given in a little water, or a strong solution of soap in water.

In all cases of mineral poisons* this method should be adopted. If the poison should be arsenic, the alkaline medicines, as the liver of sulphur, salt of wormwood, or pearl-ash, will promote its solution, and hence it will be the better discharged by emetics.

As in cases of mineral poisons, what is to be done must be done speedily; it must be remembered, the most powerful medicine for counteracting their effects, is the *liver of sulphur*, given in a dose of twenty grains, dissolved in a glass of water, and repeated in a quarter of an hour, or in the manner above mentioned; and that when this preparation cannot be obtained, the salt of wormwood, or soap lees, with or without flowers of sulphur, are the best substitutes for it. (See Flowers of Sulphur.)

* When the patient refuses to give any account of the poison he has taken, it will be advisable to treat it as belonging to the mineral class, in order to avoid a loss of time, which, with the emetic of ipecacuan, will also succeed in expelling it, should it be of the vegetable kind.

It is strange such powerful medicines in counteracting the effects of mineral poisons, should not have been noticed by Tissot, Buchan, and others who have written on the subject, professedly for public instruction. Dr. Buchan merely recommends oily drinks to be taken, and observes, if they fail to produce vomiting, "half a drachm of powder of ipecacuan must be given, or a few spoonfuls of the oxymel or vinegar of squills may be mixed with the water he drinks." The two latter articles no medical man, at least of any chemical knowledge, would think of employing, being more likely to increase than diminish the virulence of the poison.

With respect to mineral poisons, there is a rational ground for hope, as by proper management they may be decomposed, their effects counteracted, and the danger resulting from their exhibition guarded against and prevented; but the

VEGETABLE POISONS

Do not admit of such a remedy, there being no means of rendering them inert by decomposition. Their speedy evacuation should, therefore, be attempted by the most powerful emetics; as ten or fifteen grains of white vitriol, or four grains of emetic tartar, No. 35, with thirty of ipecacuan powder, No. 23, in a little water.

The sooner the emetic is administered, the greater is the probability of success, for such is the narcotic property of vegetable poisons, that in a short time they will so far destroy the sensibility of the stomach, as to render vomiting impracticable; their evacuation cannot then be effected, and their continuance is inevitably fatal. If an emetic medicine cannot be readily procured, attempts should be made to excite vomiting by forcing a quantity of warm water into the stomach, and afterwards by irritating the fauces with a finger or a feather till the contents of the stomach are thrown up, which will often prove effectual. The vegetable acids, being considered by many practitioners to possess anti-narcotic powers, may likewise be administered; vinegar being the most handy, and no doubt as efficacious as any, may be administered in the quantity of three or four tablespoonfuls. The patient should likewise be made to drink plentifully of warm water, or a strong infusion of coffee, the latter of which some experienced practitioners assert to be the most efficacious remedy that can be employed for the restoration of the sensibility of the stomach, and the removal of the spasms induced by vegetable poisons.

If the poison be an over dose of opium, the patient should

be prevented from going to sleep, by shaking him or keeping him in motion, and applying some pungent smelling salts to the nostrils, while the above means are employed for its evacuation from the stomach. The propriety of bleeding, recommended by Dr. Buchan in such cases, is much to be doubted: no advantage can be derived from such a practice, but, as tending to diminish the powers of life, it would probably accelerate its fatal effects.

OF ANIMAL POISONS.

The effects of poison introduced by the sting of insects may be prevented, by applying, immediately, a little vinegar and spirit of wine, by means of some folds of old linen.

From the bite of a mad animal arises the most dreadful disease known in this country, termed *Hydrophobia**; for the prevention and cure of which a great variety of nostrums have been held forth to the public; but there is no satisfactory instance of any of them having proved useful; and no means yet suggested can be depended on, but the complete removal of the injured part by the knife or actual canter. In this all medical writers on the subject agree, with this difference, that some contend it can only be effectual when it is done in a few hours; while others are of opinion, that the poisonous matter is *not immediately* absorbed into the system, and think the measures for destroying the part may be practised with success many days after the bite.

Sea bathing has been employed from time immemorial as a preventive; and lately mercury by many eminent practitioners; but there are no well-attested cases in which they have been attended with advantage, so that little or no dependance can be placed on them. The complete cutting out of the part to which the teeth have been applied is unquestionably the most to be relied on; and as hydrophobia, when once it has taken place, is so generally fatal, and the period for absorption uncertain, the sooner the excision of the part is accomplished the greater will be the chance of success. Till the operation

* Dr. Berguillon, a French physician of repute, has lately published a treatise, in which he maintains, with great ingenuity, that this disease is produced *solely* by the power of imagination, without the intervention of any distinct material poison. This opinion has since been broached by several practitioners in England; but if the disease be communicated from one dog to another, or from a dog to a pig, a horse, or any other animal, of which there cannot be a doubt, surely it cannot be said to be imaginary.—“*Est natura hominum novitatis avida.*”

be done, the part should be constantly washed; and even after its removal, a discharge should be kept up from the surface of the wound by stimulating applications of basilicon ointment, with red precipitate of mercury, or spirit of turpentine.

The preventive medicine, so much extolled by Dr. Mead, is composed of ash-coloured liverwort, powdered, half an ounce; black pepper, powdered, quarter of an ounce: to be mixed well together, and divided into four doses, one to be taken every morning fasting, for four mornings successively, with half an English pint of cow's milk warm.

“After these four doses are taken (the doctor observes), the patient must go into the cold bath, or a cold spring or river, every morning fasting, for a month; he must be dipped all over, but not stay in (with his head above water) longer than half a minute, if the water be very cold; after this he must go for three times a week, for a fortnight longer. The person must be bled before he uses the medicine.”

In the space of thirty years, the doctor asserts, that he had the opportunity of giving this plan a trial no less than *one thousand times*, with (as he observes) *uniform success!!* No experienced practitioner, however, I am persuaded, will attribute to any antidotal power whatever, or think of employing it to the exclusion of more plausible remedies. If mercury be applied, it must be used both internally and externally, so as to excite salivation as soon as possible. Two drachms of the strongest mercurial ointment at least should be rubbed into the inside of the thighs and the part surrounding the wound, two or three times a day, and a pill, composed of three grains of calomel, with a grain of opium, taken twice a day. If symptoms of hydrophobia* should occur, a vein should be opened in the arm, and the blood suffered to flow till the patient faints. This practice has, in some instances, succeeded, and is by far the most rational. If the patient has the power of swallowing, two grains of the sugar of lead, in a little water, may be given every two hours, or made into a pill with conserve of roses. (See Hydrophobia.)

OF SUSPENDED ANIMATION, AND THE MEANS OF RECOVERY.

The suspension of the vital powers, produced by immersion

* It is thus named, because the person dreads the sight or noise of falling of water.

in water, called drowning, and that by strangulation and suffocation by noxious vapours* and lightning, are very similar, and require the same resuscitative means. As in poisons, so in cases of suspended animation, what is necessary to be done should be done *quickly*; therefore, on the *first alarm* of any person being drowned or suffocated, while the body is searching for, or conveying to the nearest house, the following articles should be got ready—viz. *warm blankets, flannels, a large furnace of warm water, heated bricks, a pair of bellows, warming-pan, sal volatile, clyster pipes, and an electrifying machine.* In conveying the body to the house, the head and chest should be placed rather in a reclining position, that in case any water should have got into the lungs it may run out at the mouth, which the slight agitation occasioned by carrying the body will accelerate. The head, however, should not be kept much lower than the shoulders, or even in a reclining position, many minutes, otherwise the blood will gravitate in such quantity into the vessels of the head, as very considerably to impede the restoration of life, by compressing the brain.

The body being placed on warm blankets, in a *spacious* room with a good fire, and only five or six attendants, the *first attempt*† should be to restore its *heat* and the *circulation* of the

* The unhappy incidents that occur on the opening of subterraneous places—such as tombs, cellars, vaults, &c.—are produced by the quantity of fixed air contained in them, which, being unfit for respiration, occasions immediate suffocation. The air is considerably heavier than common air, hence it occupies the lowest situations, such as wells, caverns, &c. From the famous lake of Averno, where Virgil placed the entrance of hell, this air is exhaled in so large a quantity, that birds cannot fly over it with impunity. Before a person enters a vault or cell that has been for some time shut up, or descends a well, the experiment should be made whether a candle will burn in the atmosphere of the place; for ignition and respiration are so very similar, that the same air that will support the one will also the other. The best method of rendering the air of such places fit for respiration, is to explode in it some gunpowder, in proportion to the size of the place; for this purpose, the fire-works named bomb and cracker will answer best, as they may be thrown to the bottom of the well, or end of the vault, &c. To purify the air of the vaults at Dijon, M. Morveau threw in bottles of muriatic acid, with such force that the bottles might be broke, and the acid spilt in the place; but this experiment was made to correct putrid effluvia, and not fixed air. If nitric acid were employed in the same manner, it would not only destroy putrid effluvia, but render fixed air fit for respiration, by disengaging a quantity of vital air.

† If the suspension be occasioned by noxious vapours taken into the

pod, by friction with warm flannels, and by placing bladders, add with warm water, to the pit of the stomach, and soles of the feet. Ether and other spirits, recommended by the Humane Society, for external applications, are *very hurtful*; the degree of cold produced by their evaporation* counteracting the effects of friction.

The restoration of the important functions of the lungs†, could be attempted by forcing air from a bellows through one nostril‡; the other and the mouth being kept *closely* shut, an assistant should gently press down the ribs, as soon as their elevation indicates a distension of the lungs, and this alternate expansion and compression should be continued some time, so as to imitate natural respiration: the friction of the body, &c. being still continued by the other assistants.

The action of the heart should be excited by passing through the region gentle electric shocks, from the left to the right side, and from the front to the back alternately.

The bowels should be fomented and stimulated, by throwing a quantity of warm water, with a handful of common salt dissolved in it, which may be done with a clyster-pipe and

As, the first object must be their expulsion, by compressing the chest and bowels so as to force up the diaphragm. The air will be thus in great measure expelled, and on removing the pressure, the atmospheric air will rush into the lungs, when the heart generally begins to beat, and life gradually to return.

It is a well-known fact, that an animal may be frozen to death by sprinkling ether over the surface of the body; its rapid evaporation carrying off the vital heat.

Dr. Cullen, in a letter to Lord Cathcart on the subject of suspended animation, says, that very often the water does not enter the lungs in any material quantity, and that death ensues in consequence of the stoppage of respiration, and the consequent ceasing of the action of the heart, whereby the body loses its heat and vital principle. Mr. Hunter, in the Philosophical Transactions, Vol. XLVI. advances the same theory, and asserts, that the restoration of breathing is all that is necessary to restore the heart's motion.

During this process, it will be proper to draw the tongue forward, in order to elevate the epiglottis, which, by opening the larynx, will facilitate the admission of air into the lungs. If this be neglected, the water will be more likely to pass down the gullet into the stomach, the distension of which, by forcing up the diaphragm, will, in some degree, elevate the chest, and thus deceive the attendant by giving the appearance of the air having entered the lungs. Great care, however, should be taken, that the air does not escape through the mouth instead of passing into the lungs, on account of the drawing forward of the tongue.

bladder. The injection of tobacco fumes up the fundament, recommended by the Humane Society, from the *narcotic* quality of the herb, is more likely to prove hurtful than otherwise. It is strange, a herb, noted for its extraordinary effects in *diminishing* the vital functions, should be proposed as a *stimulant* in cases of their suspension*.

A slight agitation of the body every six or ten minutes, will act as a great auxiliary to those means.

Bleeding having a tendency to weaken the force of the circulation more than promote it, should be employed only when deemed necessary by a medical practitioner. When, however, there is an evident congestion of blood in the vessels of the head, which is generally produced by strangulation, the opening of the temporal artery will prove very beneficial, and should not be delayed.

The brain and nervous system may be stimulated by applying electric sparks to the head and surface of the body†.

On the appearance of any symptom of returning life, a teaspoonful of sal volatile, or a tablespoonful of warm brandy, should be got into the stomach, either at once, or by small quantities frequently repeated.

If, after a *vigorous* employment of these means for the course of *two hours*, there should be *no* symptom of returning life, and any brewhouse or warm-bath can be obtained, the body should be carefully conveyed to such a place, and remain in the bath, or surrounded with warm grains or ashes‡, for three or four hours: but if not, the plan proposed should be *persisted* in for an hour or two longer, there being instances of lives having been restored after *three hours'* unremitting perseverance.

* The fumes of tobacco thus administered in cases of spasmodic affections of the bowels and strangulated rupture, I have known, in many instances, to destroy life in a few hours.

† I was, some time since, successful in restoring a poor woman, who had unfortunately slipped off a plank into the Thames, and, from the information I could obtain, she was under water for nearly half an hour. Being, fortunately, on the spot, the methods above suggested were immediately employed. The case (Mrs. Bloxam, of Bankside) was published by Dr. Hawes, in the reports of the Humane Society, and the anniversary meeting adjudged me the honorary medallion.

‡ Tissot mentions an instance of a young girl who was restored to life after she was taken out of the water to all appearance dead, by laying her naked body in hot ashes: after remaining in that situation for half an hour, the pulse returned, and she soon afterwards recovered speech. This author also relates the case of a man who was restored to life after he had remained *six hours* under water, by the heat of a dunghill!!

If the subject be very young, it may be placed between two healthy persons in a bed; the natural vital warmth has in this manner proved, in many cases, successful.

The apparatus for inflating the lungs, and the drag, recommended by the Humane Society, should be more generally kept at public or farm-houses, near to rivers and canals, many lives being lost for want of the latter particularly.

The means recommended for the recovery of drowned persons are equally applicable to a number of cases where the vital functions appear to be *only suspended*, such as convulsive and fainting fits, suffocation from noxious vapours, and spasmodic affections of the lungs, strangling, intense cold, blows and falls, &c. &c. Through their being neglected, from the supposition that the person is really dead, there is little doubt but that the principles of life have been revived by the heat and pure air of the earth after interment.

TREATMENT OF A FIT OF INTOXICATION.

Different acids have been recommended for the purpose of correcting the intoxicating power of spirituous and vinous liquors, but the salutary effects that follow their use is probably produced by the diluting liquor administered with them. The recovery of a person in a fit of intoxication must chiefly depend on evacuating the stomach, which is best done by forcing down a quantity of lukewarm water, and provoking vomiting by irritating the fauces with the finger or a feather. If the person have so far lost the powers of sense and motion as to be unable to help himself, he ought to be placed in an arm-chair that will secure him from falling, and the neckcloth and collar of the shirt immediately loosened. The doors and windows of the room should be thrown open to admit of a free ventilation, and all visitors, except assistants, excluded; and whatever may add to the heat of the body should be carefully avoided.

An horizontal position, as lying on the floor or bed, favouring the influx of blood into the vessels of the brain, should be avoided if possible. In case the person cannot be kept in a chair, the head and chest should be elevated by pillows, and the body inclined a little to one side for the purpose of rendering vomiting more easy. If the face be *much* swelled, and *usually* flushed or bloated, the breathing *laborious*, the eyes red and their blood-vessels *distended*, the danger of apoplexy may be apprehended; to avert which it will be necessary to attract blood from the *temporal artery*, to put the feet in warm

water, and administer an *acid* clyster of common salt and gruel, and to use every means to *provoke vomiting**. Throughout the whole paroxysm the application of vinegar, spirit of wine, or ether, to the temples and front and back part of the head, is very serviceable; the cold produced by the evaporation checks the determination of blood to the head, and moderates the heat and velocity of the circulation in the brain. The common application of pungent smelling-salts, or spirit of hartshorn, to the nostrils, by stimulating the brain, is in this case improper.

People often lose their lives in a fit of intoxication by falling down in an unfavourable posture, in consequence of an inability to conduct themselves; the head being bent under the body, the return of blood is in a great measure prevented, and respiration obstructed or totally stopped, and by continuing in this situation the living principle is soon extinguished. It is to be suspected that most of the travellers who perish among snow are of this description; fool-hardy, under the false courage of dram drinking, they sally out in the dark to explore their way, and quickly lose the road from the change of objects which falling snow occasions. The effects of the dram, in this situation of distress, accelerate death, by assisting to bring on drowsiness or sleep, which exposes the body to the action of cold, and the unfortunate traveller soon sleeps "ne'er to wake again."

The resuscitative means already recommended for the recovery of drowned people, should have a fair trial before a body so found be pronounced dead, as it is impossible to say, under such circumstances, what time has elapsed since he *last breathed*; for although the limbs may be cold and stiff, the heart may still remain so warm and excitable, that on restoring heat to the body by friction, and inflating the lungs, the vital functions may again be put into motion. The body should not, however, be *suddenly* exposed to the heat of the fire, or

* Vomiting, under an impending apoplexy, has been considered a dangerous practice by some *inexperienced* physicians: I have long made the observation, that *spontaneous vomiting* is a *certain* relief when there is every sign of instant apoplexy; it is therefore fair to imitate nature, which ample experience fully justifies. Indeed, those practitioners who have cavilled most at this practice, have produced no fact to controvert it, their dislike resting *solely* on *theoretic* opinions. To these opinions, fortunately, the operations of nature do not bend, for if we are to suppose it dangerous to evacuate the loaded stomach of the inebriate, vomiting, at any time, must be considered an operation not only inexpedient, but to a certainty hurtful.

t into warm water, till there are no hopes of recovery by the other means.

THE MEANS OF STOPPING A FLOW OF BLOOD FROM WOUNDED LIMBS, &c.

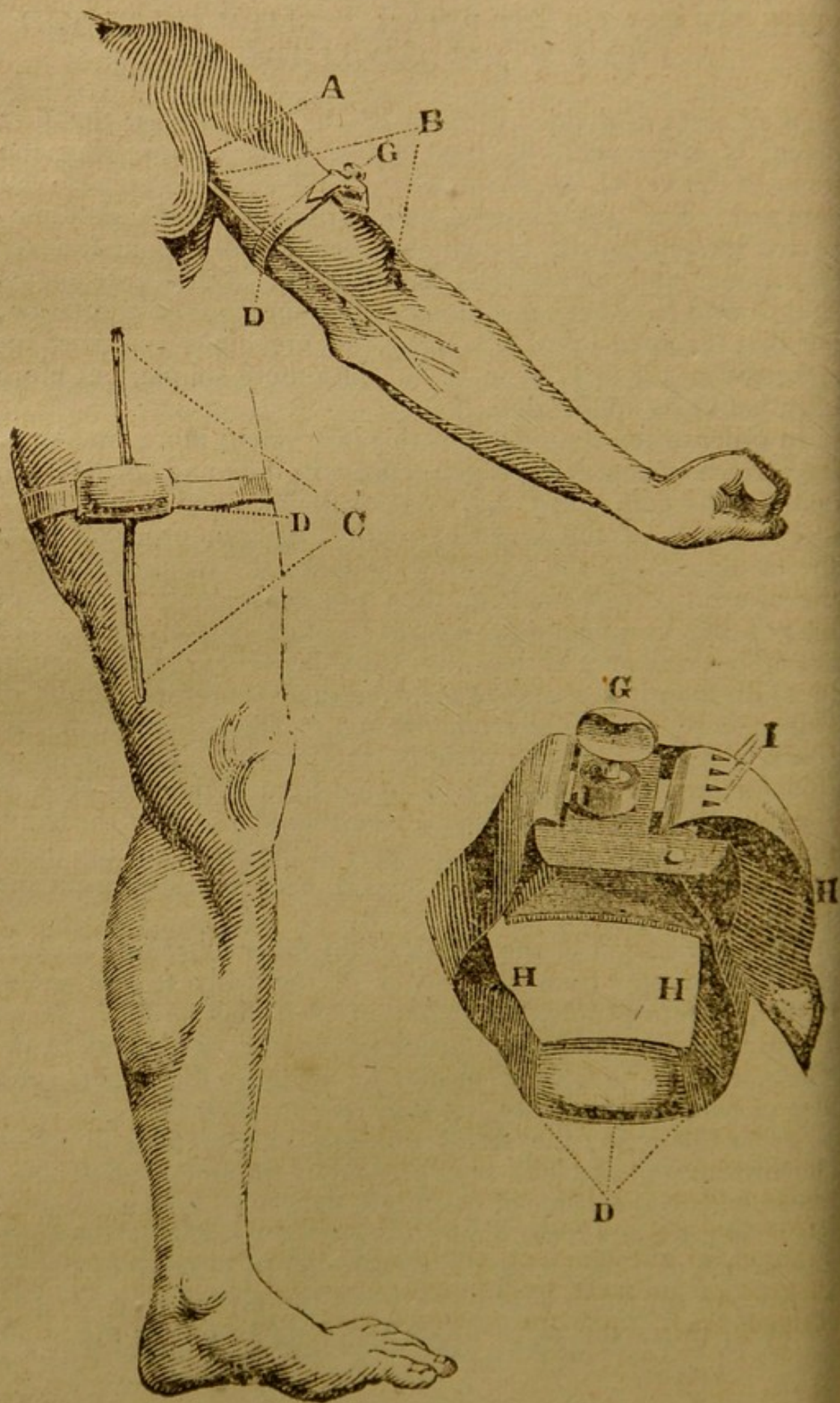
In all cases of divided arteries of the extremities, the first object is to prevent the loss of blood, by compressing the trunk of the vessels *above* the wound, till surgical aid can be obtained. For this purpose, an instrument is generally employed termed *tourniquet*; which, when skilfully applied, never fails immediately to suppress the bleeding. Many instruments of this kind have been recommended by surgeons of reputation, but that invented by Mr. Savigny, an ingenious surgeons' instrument maker in London, is not only more simple, but more effectual in its application.

In order to render the use of this instrument more familiar, I have given an engraving which represents it *on* and *off* the limb, and also the course of the arteries of the arm and thigh.

The artery of the upper extremity, or arm, proceeds from the trunk at A, in the following manner: the trunk passes into the arm-pit, *deeply situated*, then proceeds along the inward part of the arm *obliquely* towards the fore-part of the joint of the elbow, and here divides into three branches; in this course in its division it lies *near to the bone*, and therefore admits of being more successfully compressed. The situation of this trunk is described in the plate by the lines B. The compression for preventing the flow of blood from divided arteries of the upper extremity, whether above the elbow, or of the hand, must therefore be made in some part of the course of the trunk of the artery expressed by the lines B, between the arm-pit and the bend of the arm.

The distribution of the vessels of the *lower* extremity is thus: the artery passes from the cavity of the belly to the groin, where, in *thin* people, the pulsation of it may be felt. Here, in cases of a wound and effusion of blood *very high up* in the thigh, effectual compression may be made by the fingers, or a strong pad, or firm body, pressed *very strongly*.

From the groin, the artery proceeds in an *oblique* direction downwards and inwards, as expressed by the line C; and about the middle of the inside of the thigh, expressed by the compress, it lies close to the bone, which, of course, is the most favourable part for making a pressure on it, because of the resistance of the thigh bone; and when the wound is in any part *below* it, this is the place which surgeons fix on for the appli-

THE TOURNIQUET APPLIED TO THE UPPER ARM
AND THIGH.

tion of the *pad* of the *tourniquet*. The course of the vessel is then *downwards* and *backwards* to the ham; in the *hollow* of which, against the lower flat part of the thigh bone, the compression may be very successfully made in all cases of wounds or lacerations below the knee joint; but, *beyond* this part, compression must not be depended on, for immediately below the point the artery divides, like that of the upper extremity, into three vessels, which are situated *between* the bones of the leg. In using the *tourniquet*, great care must be taken that the *pad*, D, be applied over the artery, and the instrument itself nearly opposite to it as possible. The bandage, H, is then to be conducted round the limb, passed through the opening of the instrument *behind* the roller, drawn over it very tight, and secured by fixing it on the three steel points, I; in most instances this will be found sufficient; but if it should not, a few turns of the screw, G, will effectually complete the intention.

The *pad*, or compress, is not, in all cases, necessary; and, even when the discharge of blood is considerable, if there be any doubt about the exact place to which it should be applied, it may be omitted entirely. The circular bandage, when made tight, will effectually compress both the trunk and the collateral branches of the artery; and, therefore, many surgeons consider the *pad* useless. When it happens not to be applied over the artery, but on one side of it, the *pad* may prevent the compression of the artery by the circular bandage, in consequence of which, the blood will continue to flow. Such a circumstance I have known to happen during the amputation of a limb at one of the London hospitals.

If the wound be in the head, or trunk of the body, the most effectual and easiest method of applying pressure, is by means of dossels of lint, or soft linen, held *firmly* upon the divided ends of the vessels, or over the wound, by the fingers.

The *tourniquet* is only employed in case of the division of any of the vessels which convey the blood *from* the heart, termed *arteries*. In consequence of the power with which the blood is propelled through this system of vessels, it happens, that when they are wounded, the blood flows *rapidly* and *in* *arks* from the wounded part.

The vessels by which the blood is returned to the heart, are called *veins*. The blood in them receives but little of the impelling force of the heart, and therefore moves not with a strong tide or current, but glides *evenly* and *gently* on: hence wounds of these vessels are of very little importance, a small degree of pressure by a finger, or a dossel of lint, or some folded linen, upon the wounded part, will effectually stop the

bleeding. The same will be sufficient in cases of divided arteries, when the vessels are small, or when a tourniquet or bandage is not at hand.

Agaric, and other fungous substances, and preparations of iron and the mineral acids, have been much extolled for stopping the bleeding of wounds: their astringent effects, if any they produce, are very temporary, and are *always* productive of mischief, by irritating the wound, and preventing the union of its edges, or what is termed, its healing on the first intention.

The same may be said of Friar's, or Turlington's balsam, tincture of myrrh, &c.

OF PHLEBOTOMY, OR BLOOD-LETTING.

The operation of bleeding being so frequently performed by farriers and barbers, it is generally regarded by the public as trivial with respect to its execution. However, whether we consider its influence on the system, or the niceness of the mode necessary for effecting it, it is nearly equal in importance to any operation in surgery; and hence many expert surgeons have almost an invincible dislike to it, while the person ignorant of the great nicety, steadiness, and exactness, necessary, as well as its effects on the constitution, performs it with the greatest freedom, but not with uniform success; as is proved by the many melancholy cases that are admitted into our hospitals in consequence of the ignorance of the operator, either by wounding a tendon or puncturing an artery*.

When the intention is to lessen the general mass of blood, the superficial veins on the front of the arm, over the bend of the elbow, are not only more safe and convenient for opening, but experience has proved that the blood flows more freely from them, which, in many acute diseases, is of great consequence;

* A blacksmith, in Herefordshire, who had obtained great celebrity as a bleeder, was requested by his wife to take a little blood from her arm on account of some slight indisposition. The lancet having unfortunately penetrated the brachial artery, and his usual means of stopping the flow of blood failing, he had recourse to pressing over the orifice cobwebs and lint, with such force, that a considerable portion entered the wound. The blood still continuing to ooze out, and the arm being considerably swollen, he sent her to the Hereford infirmary; but the inflammation having extended to the chest, and mortification commenced, amputation was rendered impracticable, and the poor woman died the following day!!

It is a well-established fact, that the *speedy* extraction of a ounces of blood is more beneficial than double the quantity taken slowly from a small vein or orifice.

The person being properly seated in a good light, a band should be tied round the upper arm about three fingers' breadth above the elbow, sufficiently tight to compress the veins so as to prevent the return of blood, but not so tight as to prevent its passing by the brachial artery; for after the ligature is applied, the pulse should continue to beat, otherwise the vein will scarcely bleed after it is opened. A vein of moderate size, under which *no beating* or *tendon* can be discovered, should be chosen. The arm should be extended, and if the arm do not rise well, the patient should shut his hand or grasp a stick: the operator should then take the arm into his left hand, and if the vein appear loose under the skin, he should place the thumb of his left hand on it, about an inch and a half or two inches *below* the part he has fixed on to make the puncture. The lancet, being firmly held between the fore-finger and thumb of the right hand, is then to be *steadily* introduced into the vein *obliquely*, and taken out by *elevating* the *point* so as to enlarge the puncture. When the quantity of blood judged sufficient has flown, the ligature is to be removed; and the edges of the orifice being carefully brought together, a compress of fine linen is to be laid over it, and the arm bound up with a riband. The right arm is more convenient to the operator than the left. If the patient be subject to faint during, or after the evacuation of blood, he should be placed either on a bed or couch. In some diseases, however,—as strangulated hernia, inflammation of the brain and lungs, &c.—it may be deemed advisable to induce fainting; for it is an admitted fact, that when bleeding produces a degree of fainting, it proves in those cases much more serviceable. It will, therefore, in some instances, be proper that the trunk of the body be placed erect on a chair, as most favourable for producing this effect. There are often so many unpleasant circumstances happen, not only during the operation (as the cellular membrane blocking up the orifice, the blood passing under the skin, &c.), but even in the loss of blood, that it should only be performed by, or at least with the consent of, a medical practitioner; for, as an physician has justly observed, "it is taking away what medicine cannot give." In internal bruises, occasioned by severe blows, it is certainly necessary that the patient should lose blood immediately; when, therefore, the aid of a surgeon cannot be readily obtained, the *advantage* that would result from the *immediate* extraction of blood may, in general, more than counterbalance any slight mischief that may ensue from the opera-

tion not being judiciously performed. In sudden attacks of apoplexy, inflammation of the lungs, pleurisy, and all internal inflammations and inflammatory fevers, attended with determination of blood to the head or lungs, the *speedy* loss of blood is often of considerable importance; but as the *topical* extraction may prove more beneficial than *general* bleeding, even in such cases it will be advisable to defer it till the practitioner arrives, provided a greater delay than six or eight hours be not occasioned by it.

The symptoms of plethora, and particularly the fulness of pulse, on which popular medical writers have laid so much stress, as indicating the necessity of bleeding, are very fallacious; for inflammation of either the lungs, brain, or bowels, is often attended with a *small* and *feeble* pulse, which *after* the loss of blood will become *full* and *strong*: hence, again, in apoplexy the pulse is rendered feeble in consequence of the compression of the brain, which frequently after the evacuation of blood will so far rise as even to indicate plenitude and strength; and it often happens in dropsical complaints, where the loss of blood would prove fatal to the patient, the pulse will beat with unusual strength. The pulse likewise of an old person will feel hard and firm, from the *rigidity* of the coats of the vessel; hence the learned Celsus justly calls it "*res fallacissima*;" and the late Dr. Heberden, in the London Medical Transactions, has published some ingenious observations, to shew how little it is to be depended on *alone*. (See the remarks on the pulse in the Introduction to the Second Part.)

To these observations on bleeding, it may not be amiss to subjoin some remarks on the practice of

PERIODICAL BLOOD-LETTING.

The loss of blood at certain periods of the year, is an error very common amongst the lower orders of people, and I conceive extremely inimical to the constitution. Bleeding is unquestionably a remedy of the greatest importance in a number of diseases; but, like all others, it has been much abused, and perhaps in few instances more than in that which relates to this absurd custom. A celebrated author observes, that "he who wantonly or capriciously squanders this vital fluid, obstructs, and as it were cuts off, the sources of his support and regeneration." The most essential and constituent parts of the human frame are formed from the blood*; and though it be true that the

* "The blood is the life of man;" that is, this fluid contains the principles of nourishment, and distributes them to every part of the body for its supply and refreshment,

Food evacuated by periodical bleeding is soon reproduced by the activity of the vital powers, yet this restoration is only brought about with considerable efforts, and at the expense of the whole machine. In most inflammatory affections, as I have already observed, bleeding, regulated according to circumstances, is often of greater importance than any other remedy, and doubtless has saved the lives of many; but those persons who, from a notion of preventing diseases, suffer themselves to be bled *regularly* once, twice, or oftener, in a year, whether they are indisposed or not, ought to be informed that they are using means which, if persisted in, are likely prematurely to bring upon them those very diseases which they profess so much to dread, and appear solicitous to avert. Where the habit has been established, it may be safely and easily overcome by substituting in the place of bleeding at those periods a gentle purgative, and in order to prevent its future necessity, to abstain as much as possible from animal food and spirituous liquors. A vegetable diet affords the same support as meat; and has the very important advantage of not producing plethora.

The system is affected in two ways by plethora. In elderly people, especially, the vessels are often overloaded, and by compressing the brain produce great prostration of strength, coldness of the extremity, indigestion, &c. In this case we have recourse to bleeding, to remove a mechanical cause; and by the extraction of blood, the patients seem to feel as if a weight was taken off the springs of life, the circulation is more free, and the heat of body increased. In young subjects, and not unfrequently old ones, the blood abounds too much with red particles, occasioning increased heat or fever, and irritation of brain: in this case we extract blood for the purpose of diminishing the quantum of red particles in the circulating mass. In cases of accidents, we bleed with the same view, to take off a state of system that would favour inflammatory action, and thus prevent fever as well as local inflammation.

OF SUBSTANCES LODGED IN THE GULLET, OR STOMACH.

When any foreign substance is lodged at the *top* of the gullet, it may in general be removed by the fingers, or a pair of forceps; but when it has descended *far down*, it will be necessary to push it into the stomach, by introducing a probang (made with a piece of soft sponge fastened to the end of a slip of whalebone); but if the article swallowed be *sharp pointed*, or

have *acute* angles, this operation must be conducted with *great care*, as by the employment of *much force* it may be made to penetrate the substance of the gullet, which, in cases of *pins, needles, nails, or sharp pieces of bone, or glass*, is not an unfrequent occurrence.

When the article has passed into the stomach, whether it be sharp-pointed, angular, or large, no means should be taken to *hasten* its passage through the alimentary canal; for if it be sharp-pointed, it will be less likely to injure the intestines by passing *gently* with *hard* fæces, than by being hurried through them with *liquid* ones; and if it be large, as a shilling, a half-penny, a bullet, or fruit-stone, it will require some time to pass through the orifice of the stomach (termed the pylorus) into the intestines, and the more gradually it makes its way the less mischief is likely to ensue. When this practice has been pursued, I never knew any serious consequence to follow the swallowing of such articles; but have frequently known much mischief produced by the exhibition of aperient medicines, with a view to carry them off more speedily by stool.

If the article be metallic—as lead, copper, &c.—it will be advisable to caution the person against the use of *acids*, till it has passed through the intestines, and to correct and prevent acidity, by taking a little magnesia every morning.

Emetics should never be given without the sanction of an *experienced* physician or surgeon.

The late Dr. Buchan, in his Domestic Medicine, observes, that if the various means he has suggested to hook out substances lodged in the gullet should fail, the operation of “*bronchotomy, or opening the windpipe, must be performed.*” What advantage could possibly be derived from making an opening into the windpipe to remove a substance retained in a different tube, must puzzle an anatomist to conjecture. Should an apothecary, not conversant with the anatomy of the parts, be induced, by the great agony and apparent danger of the life of the person, to follow this author’s advice, and after making the incision into the windpipe, and not finding the obstructing body there, should cut down to it, the life of the patient would very likely be destroyed.

When the substance cannot be removed, and the patient’s life is endangered from the want of due nourishment being thrown into the system, or the person likely to be suffocated in consequence of the compression of the posterior part of the windpipe, *œsophagotomy*, or making an incision into the gullet, may be necessary; in performing which, the windpipe is not wounded. On account of the imminent hazard attending this operation, from the great blood-vessels that lie conti-

uous to the part, it is never practised but in cases of the utmost danger, and should be performed only by a surgeon well versed in the anatomy of the parts. Under such circumstances, nourishing clysters have been known to support life for many weeks. (See Nutrient Clyster.)

OF SUBSTANCES AND INSECTS LODGED IN THE EAR.

Although the formation of the external parts of the ear and viscid nature of the internal secretion are admirably calculated to prevent flies or foreign matter getting into it, yet it happens that much distress is sometimes induced by children pushing small peas, fruit-stones, and other such articles, into their ears, and by flies and other insects frequently creeping into them; which, by touching the tympanum, produce much noise and distress. They may, in general, be removed with facility by a common forceps; when the substance, however, is round, it may be more readily turned out by means of a curved probe, the end of which should be passed behind it: if the article is large, a little oil should first be dropt into the ear.

When an insect is so far in the ear that it cannot be taken out with forceps, the best method of removing it is to wash it out by throwing in warm water or any other mild liquid, by means of a syringe. If it adhere with firmness, which it often does while living, the ear may be filled with oil or brandy, which may be kept in for some time (by the person resting his head upon the opposite side), for the purpose of killing it, when it may be readily removed by forceps or a curved probe.

Peas, and other soft bodies which swell with moisture, are so apt to become large by remaining in the ear, that they should be removed as soon as possible. When it has been neglected, and the substance cannot be taken out from its enlarged state, it must be divided with the points of a pair of scissors, or a sharp small hook cautiously introduced along the passage; and as soon as sufficiently divided, it may either be removed by piece-meal with the forceps, or washed out with a syringe. In the same manner peas and other extraneous bodies may be removed from the nostrils.

OF THE INFLUENCE OF THE MIND ON THE BODY.

We have almost daily proof that, even in a state of health,

the operation of the passions, and their influence on the body, is great; some exciting, and others depressing, the vital powers; and these again, by some reflex or active powers of the mind, acquire a new influence, totally independent of their first impression: thus anger hurries the circulation of the blood, and determines its impetus to the head; it is one of the most violent and vigorous passions of the mind—it glows in the eyes, the cheeks redden, the voice is thick and stammering; bilious vomiting, foaming at the mouth, follow, with rupture of blood-vessels, inflammation of the brain, apoplexy, or violent fever. But to these, high as they sometimes rise, not unfrequently succeed debility, languor, and depression, as the turbulent ocean sinketh into a calm.—If man be, therefore, thus subject to the influence of the passions during health, how great must be their effects when the vigour of health no longer sustains his frame? We should, therefore, cultivate an acquaintance with the mind as well as with the body.

THE PASSIONS OF THE MIND.

The passions have been styled, not unaptly, by a number of authors, the gales of life; and from them may be said to proceed the “issues of good and evil.” They are the source of every agreeable and of every painful feeling.

The passions have been properly divided into two kinds, the exciting or enlivening passions, and the depressing ones. They operate on the body either suddenly, or in a slow, progressive, and gradual manner. Death has been known to be the immediate effect of the former, while the latter generally diminish the vital powers. The choleric and sanguine constitutions suffer chiefly from the violent passions, and the phlegmatic and melancholic, whose sensations are dull, fall victims to those of an opposite kind. The long continuance of one passion, by irritating the brain, is apt to produce bodily disease, and frequently terminates in mental imbecility. The cure of mental diseases has at all times formed the most difficult task for the physician, so much so, as to render it proverbial. Thus, in the language of Shakspeare—“who can minister to a mind diseased?” Change of objects, of impressions, and ideas, are the most powerful means of rousing the intellectual functions of the brain; for argument, in general, has but little sway. The early management of the mind, by a proper education, is the best guard against the mischievous effects of the passions at an after-period. Their controul becomes then a habit with the individual, and prevents any excesses which might other-

wise spring from their occasional excitement by unforeseen circumstances. Hence it may be laid down as a leading maxim, that the controul of our passions is an indispensable requisite to the proper enjoyment of health. But in order to point out the effects of passions more clearly, it will be necessary to consider each of them separately. The first of the passions, and one we naturally wish to begin with, is

JOY.

This is a state of mind in which there is felt extraordinary pleasure, and in which a high degree of animation takes place. The heart is expanded; the circulation rendered free and vigorous; the eyes sparkle; and the mind becomes complaisant and mild. Hence this state is favourable to the enjoyment and recovery of health, where the body is languishing under general debility or nervous depression. Of this passion a variety of modifications or degrees occur, under the names of gaiety, cheerfulness, mirth, &c. &c.

The state of mind produced by this passion may be much favoured by a proper attention to the state of the evacuations, and also to the regulation of diet. The evacuation by the skin is in particular of the first consequence, and the diet should be of easy digestion, of an aperient quality, and in considerable proportion of a vegetable nature. Hence a warm air has a considerable influence in producing the state of mind favourable to this passion; and by the circulation being promoted by this benign disposition, a tendency to obstruction is prevented. Excessive joy, however, is often attended with severe evils; instantaneous death has occurred from the immediate and rapid tumult produced on the spirits by its unexpected occurrence. Wherever, therefore, it is carried so far, though even in less degree, as to occasion sleepless nights, and great evacuations by the skin, which it is apt to do; then it is necessary to moderate this extreme passion, as more dangerous than even grief, which excites the very opposite sensations. It is better to prepare the mind gradually to meet the emotions of this passion, by which the effects will be lessened and regulated.

Laughter may be considered as a mode of expressing this passion, and, when kept within moderate bounds, is highly useful. Laugh and grow fat, though a vulgar proverb, is a proof of its utility, and of common belief on this point. It promotes the circulation of blood through the lungs, the energy of the nervous system is increased, and hence laughter has proved the means of relieving pains of the stomach, cholic, and several chronic maladies connected with obstruction, or

nervous debility. The bursting of 'abcesses, in critical situations, has often been hastened by it.

HOPE

Is a modification of joy; or, properly, joy by anticipation. It is real joy without alloy, which often happens when the actual event or good, which gives rise to it, comes. Hope, then, is the most pleasing state the mind can be in, and is highly favourable to health. It tells always, in the language of the poet, "a flattering tale," and paints the image, not as it is, but as it ought to be. Its beneficial influence on the body has been evinced in numberless instances, where it has produced a serenity of thought, and tended to prolong existence even in the most forlorn situations. It may be said to be that passion, or affection of the mind, which is the latest to leave us, and which continues to linger with us till the extinction of the vital spark on this side of the grave, and to point out, even before this event is completed, the scene that is expected beyond it. Hence it conveys, more than any other of our passions, an idea of

The divinity that stirs within us,
And points out immortality to man.

Hail, thou first best feeling of our nature! Mayest thou never, in this scene of vicissitude, forsake us!

OF LOVE.

This is the strongest of all the passions that affect our nature; and less under the control of reason than any other: and this we must admit is wisely ordained, when we consider that it is intended as the principle on which the continuance of the species depends. This passion generally affects the mind by degrees; but it is, at the same time, when once rooted, more fixed than any other; and hence the caution that ought to be observed, in not giving way to it at an early period, when it is still under the restraint of the will. Hence the just advice of the poet:—

With caution and reserve indulge the sweet destroyer of repose,
Nor court too much the queen of charming cares;
For, while the cherish'd poison in your breast
Ferments and maddens, sick with jealousy,
Absence, distrust, or ev'n with anxious joy,
The wholesome appetites and pow'rs of life dissolve in languor;
The coy stomach loathes
The genial board, your cheerful days are gone;
The gen'rous bloom that flushed your cheeks is fled;

To sighs devoted and to tender pains,
 Pensive you sit, or solitary stray,
 And waste your youth in musing. Musing first
 'T'oy'd into care your unsuspecting heart ;
 It found a liking there, a sportful love,
 Which musing daily strengthens and improves
 Through all the heights of fondness and romance ;
 And you're undone, the fatal shaft has sped,
 If once you doubt whether you love or no.
 The body wastes away ; th' infected mind,
 Dissolved in female tenderness, forgets
 Each manly virtue, and grows dead to fame.

But while we thus caution against giving way to this passion in an ungovernable degree, it is not to be denied, at the same time, that the best effects are known to follow its reasonable indulgence. An attachment to a beloved object has been known to cure the most obstinate disorders, which resisted every other medicine ; and it has produced a total change on the powers and disposition of the mind, often for the best purposes, by giving it an ardour and heroism to vanquish every obstacle that may present itself to its desires. It is when this passion is under the necessity of being concealed, and where there is no hope of enjoyment, as in many cases in the female sex, that it proves so detrimental to health, and preys with a secret uneasiness on the mind ; such as is so beautifully described by Shakspeare, when he says—

She never told her love,
 But let concealment, like a worm i' the bud,
 Feed on her damask cheek : she pin'd in thought,
 And, with a green and yellow melancholy,
 She sat like Patience on a monument,
 Smiling at Grief.

When long continued, it constitutes grief ; when diversified by alternate agonising sensations between hope and despondence, it is named distraction ; and when overwhelmed with disappointment, it is properly despair. This passion, in its general feeling and effect, may be styled the slow poison that corrodes the mind, and, in the language of Scripture, "The worm that gnaws within:" the body becomes gradually enfeebled by its suffering, the circulation rendered slower, occasioning obstruction of some of the viscera. The digestive organs no longer perform their functions properly ; the nervous system is rendered irritable ; the temper peevish ; and the mind occupied solely with its own ungrateful feelings, the unhappy individual falls a prey to melancholy, and in time, in common language, dies of a broken heart.

Indolence and solitude are ever the supporters and nourishers of grief. Occupation and society are, therefore, its chief remedies. In this point, music will form an useful lenitive. According to the poet,

There is a charm, a power that sways the breast,
Bids every passion revel or be still,
Inspires with rage, or all your cares dissolves ;
Can soothe distraction, and almost despair.

That power is music.—Perspiration should be promoted by the warm-bath ; and a dry, warm, or temperate climate should be the situation chosen for a residence. Weeping is generally the termination of a violent paroxysm of grief, and should be considered as giving relief, and as an useful palliative remedy. The next passion that claims our attention, and the most fatal of the whole, when carried to extravagant bounds, is

ANGER.

It has accordingly been termed a short-lived madness, and is frequently fatal by occasioning a determination of blood to the head, and thus inducing apoplexy. This effect of it is beautifully described by Armstrong, when he says,

But there's a passion, whose tempestuous sway
Tears up each virtue planted in the heart,
And shakes to ruin proud philosophy :
For pale and trembling Anger rushes in
With falt'ring speech, and eyes that wildly stare,
Fierce as the tiger, madder than the seas,
Desperate, and armed with more than human strength.
But he whom anger stings, drops, if he dies,
At once, and rushes apopleptic down ;
Or a fierce fever hurries him to hell.

Anger, therefore, according to its degree, induces different spasmodic and convulsive symptoms. Irritability of disposition evidently disposes to this passion, and particularly the hysterical and hypochondriac temperaments, as well as those of dry and rigid constitutions. In the former of these cases, when the passion is moderate, it is frequently beneficial, by increasing the circulation when sluggish ; but in the latter constitutions its attack is always dangerous, and every act should be avoided that might tend to produce it. For such persons a mild diluent diet is most proper.

All stimulating food should be avoided, and an indigence of sleep should be favoured. A fit of anger should be treated as an inflammatory disease.

FEAR

Is a passion in its effects something similar to grief, for it weakens the powers of body and mind in various degrees, according to its different stages. It has been known to produce mania, and in its highest fit of terror to prove even fatal. Rashfulness, anxiety, and terror, are all different modifications of it. It particularly favours the attack, and increases the malignity of epidemical diseases; and by producing a weakened circulation of the surface, gives rise to various instantaneous affections, and other ills, as palsy, loss of speech, epilepsy, &c. The treatment under violent degrees of it should be the same as that suited to spasmodic maladies, by first removing the spasm produced, and then promoting the different evacuations that may be interrupted.

A very interesting view of the passions is exhibited in Holy Writ.—That penitent passion of conscious guilt, SHAME, allows the awful interrogation of the first man; “*Adam, where art thou?*” *Dissimulation*, a passion unworthy a liberal mind, the result of *fear* combined with *guilt*, is immediately prominent in the assumed exculpation, “*She gave me of the tree, and I did eat.*” The sacred historian portrays the dreadful impetuosity of anger in the first-born human being, who affords an example of wrath of the most implacable nature—the religious wrath of one brother persecuting another unto murder, preceded by all the groveling suspicions of superior merit, expressed in a *sullen* or a *fallen countenance*; and avenged by supreme Justice, in an appeal to the heart, that almost kills the blood:—“*What hast thou done? The voice of thy brother’s blood crieth unto me from the ground.*”

In the under-plot of *sinister* passions, we see in a wife and parent the influence of *prejudice*, *insinuation*, and *treachery*; all further degenerating into *avarice*, in the character of one; and pathetically contrasted in the generosity of an injured other, after the emotions of *anger* had subsided, “*who ran to meet him and embrace him, fell on his neck and kissed him, and they wept.*” This picture, for strength of colouring, for the close union of strong and tender passions, is not perhaps exceeded by any thing ever recorded.

The lesser passions of *envy*, *jealousy*, *disappointment*, *fretting*, &c. may be all considered as modifications of the more important ones above detailed. The general treatment of all mental disorders may be comprised under the following heads:—1st. To remove, as far as possible, the cause of the passion, whenever passion is predominant.

2d. To inspire, according to circumstances, an opposite passion, as a means of cure.

3d. To present the mind with a variety of scenes and objects of a different nature from that of the prevailing passion.

4th. To affect the feelings by the power of music.

5th. To attend to the state of the skin and bowels. And

6th. To observe a guarded regimen during the prevalence of any passion, in food, drink, and medicine.

OF DIET.

Diet consists in that course of eating and drinking which every man employs for the support of life; and varies therefore with every individual, in a certain degree, according to taste and circumstances. In a medical view, however, it is proper to consider the course of diet which is best suited to each period, without regard to any thing extraneous; and in so doing, I shall begin with that youth*.

OF THE DIET OF YOUTH.

The diet of children and young people should consist greatly of diluents, in order to facilitate the progress of growth. Hence broths, and a large proportion of vegetables, are the most suitable nourishment. Milk also is a proper part of diet, and it should be used in every form during this stage of life. In point of drink, water is the best, and should be almost the only beverage. Seasoning of all kinds should be avoided, and nothing should be taken that can, by stimulating the system, induce a too early maturity, before the constitution is ripened for it by years.

OF THE DIET OF MANHOOD.

With complete adolescence, the quantity of food necessary for the period of growth should be abridged; but, from the active scenes of life in which the body is then engaged, the food should be of a more stimulating nature, and a proper proportion of animal food interposed. The proportion, however, must be regulated by circumstances; thus, those who pursue a sedentary and studious mode of life should be more sparing in the use of animal food, and stimulant drink; for by excess of nourishment to the body, the intellects are found proportionally weakened. Those of a firm and vigorous habit possess a strong disposition to inflammatory diseases. Excesses therefore should be particularly avoided by them, especially in the use of fermented drinks. Where the constitution is deli-

* For the diet of infancy—see Feeding of Children, page 143.

e and irritable, a diet moderately stimulating is most suitable, with a very spare use of fermented liquors. The sanguine should confine their diet chiefly to vegetable food, and their drink to water without any impregnation. The phlegmatic diet admits a greater latitude in the use of stimulant diet than any other, and both seasoning and stimulating drink will be less hurtful to such a constitution; the chief point is to guard against corpulency. Where a dry habit prevails, young men, with fruits and fresh vegetables, forms the best regimen; and in point of drink, good wine, diluted with water, is preferable.

With respect to drink, at all periods of life, temperance is necessary. Strong liquors are indeed best suited to cold climates, and here they are generally used to excess. In warm climates, though their temporary use may be called for at times, the practice should not be indulged in. (See Indigestion.)

OF THE DIET OF AGE.

The diet of age, or after fifty-five, should return somewhat to the early periods of life. The proportion of solid food should be lessened, and we should adopt the diet recommended for youth; thus broth and liquid food should mostly be used; and all nourishment taken should be of easy digestion, with a moderate use of seasoning. The appetite is more languid, and the machine requires to be spurred on. Well-fermented liquors, especially wine, are also proper, for the system must now be invigorated and supported.

OF DIET UNDER DISEASE.

If an attention to diet be so necessary in health, it is certainly still more so under disease, and the forms suited to the case come next to be examined.

LOW OR FEVER DIET

May consist of panada; gruel; milk, thickened with arrowroot; plain bread pudding; arrow root, salep, tapioca jellies, &c. milk; chicken or veal tea.

Drink.—Barley-water, acidulated with lemon or orange-juice; thin gruel; bohea, balm, or mint tea.

RESTORATIVE, OR CONVALESCENT DIET.

Rice or bread pudding; hart's horn, isinglass, or calves'

feet jelly; oysters, and shell fish; flounder and soles; veal; fowl, rabbit, and lamb.

Drink.—Fresh small beer; porter; Port or claret wine, with water; weak brandy and water.

GENEROUS OR FULL DIET.

Rice or bread pudding; strong beer; broth, or gravy soup; oyster, and shell fish; veal, lamb, mutton, beef, pork, &c.; jelly of hart's horn, calves' feet, or isinglass; meat soups; with vegetables.

Drink.—Brisk cyder or perry; sherry, Port, or claret wine; rum or brandy, diluted with water.

OF DRINK.

Drink is that supply of liquid which the body requires to repair its fluid parts; and the necessity for this supply, as well as its quantity, are both pointed out by a certain feeling which the want of it excites, named *thirst*. From the purpose that drink is naturally designed to serve, the liquid composing it should be of the simplest and most diluent kind. Hence, water is the drink of all animals, and also of man in his natural state. But, along with refinement, this part of aliment, as well as food, has changed the simplicity of its nature; it has become impregnated with a variety of foreign matters, which stimulate and disorder the system; and thus, instead of answering the original intention of nature, as a pure elementary fluid, in allaying thirst, it is formed only to please the palate, and to create a desire for the enjoyment of it, beyond what either nature requires or reason approves. Drinking, or rather dilution, which is a term that more properly applies to this part of the subject, we find indispensably necessary to the support of animal life. By it alone, life can be maintained for a certain time without food—a proof that it is even more essential than food itself. The use of it however, like that of food, requires certain regulations; and we are more apt to exceed in the proportion of drink than of food. There are many people, however, who are known never to drink at meals, the time when dilution is perhaps most necessary, and even rarely to do it on any other occasion; this is a practice by no means to be commended: but the other extreme, which is so common, should be equally avoided, on account of it weakening the digestive organs. Drink, besides the supply of fluid to the system at large, in the first instance, materially promotes the solution of

the food, and expedites its passage from the stomach, and its conversion into chyle; it then assists the union of this part with the other animal fluids already formed, and by giving pliancy and tension, increases the activity of the general circulation. Thus it promotes the formation of blood, and gives vigour and supply to the different secretions. How to employ drink properly, is a subject of the first importance, and our conduct respecting it we must be directed by the several circumstances of the nature of our food, of the state of the season, and of our mode of life; while even the particular time and manner of using it, in regard to meals, as well as those restrictions specified, merit an equal share of attention. On the nature of our food, we may take notice that the drier it is, either from its quality or form, the greater proportion of drink it requires: animal food demands, of course, a greater quantity of drink than vegetable food. But in all cases the drink should exceed the proportion of food: this some authors have endeavoured to fix as a limit, by stating that the proportion of liquid should be double to the proportion of our dry aliment. But this will never be accurately observed, for every individual will be much regulated by inclination and habit in this respect. One thing, however, is clear, that animal food requires a greater proportion of drink than vegetables, and that water is the best beverage to conjoin with both, from its less disposition to produce acescency. The state of constitution determines a good deal our natural appetite for a large proportion of drink. Thus the phlegmatic habit has less inclination to drink, than those of the sanguine and choleric temperament. Women also have less calls from thirst than the other sex; and youth, in the same manner, less than manhood or age. The influence of the season regulates likewise our appetite in a material degree; excessive heat calls for a large supply of liquid, by increasing the evaporation from the surface of the body, and it suspends also in some measure the activity of the gastric secretion, as the desire for solid food becomes considerably diminished: thus the inhabitants of warm climates eat little in proportion to those of colder regions; but they require a constant supply of liquid, and their desire for this knows no bounds. On the other extreme, the natives of a cold country possess a keenness of appetite, and strong desire for solid food, which, unless very dry and compact, seldom excites much inclination for liquids. Hence, it is more from their teasing the palate, than from their diluent nature, or from the real call of thirst, that much consumption of drinks in cold regions takes place. The way of life, the last circumstance we have taken notice of, must considerably affect the desire for drink,

and that much in the same manner as the influence of the season: thus, the laborious, from their exertions, keep up an increased evaporation from the body, and require a much larger use of drink than the sedentary and inactive; and according, therefore, to the degree of exercise of the individual at different times, will the call for drink be greater, and the necessity also for an increased supply be proper. The suitable time for drinking, with respect to meals, is a part of the subject that next falls to be treated. A desire for drink is generally one of the first calls we have in the morning, and this will be properly gratified with a glass of cold water, which will give a vigor and tone to the stomach, and prepare it for the approaching meal; it will also tend to remove any viscid phlegm which may be collected in it, and which may vitiate the appetite for the morning's repast: at first, however, the feeling communicated by this beverage will be disagreeable; but if continued for a few times, it will prove a refreshing and agreeable relish. Drink before a meal has been objected to by some writers; this, however, like every general maxim, must be regulated by circumstances: if the stomach be strong and active, it will do no injury in lessening the appetite; if the stomach, on the contrary, is weak and relaxed, some indulgence of this kind may be proper in the way of cordials, to excite its languid action, and invigorate it for the approaching reception of food. The same objections have been applied to drinking at the time of meals, and no doubt it is intended by nature that the appetite for food should first be satisfied before a supply of drink becomes necessary; at the same time, drinking cannot be avoided to a certain degree, and especially in warm weather, when the stomach is languid, and the nourishment taken is not sufficiently quick in its operation to remove it: a moderate portion of drink, therefore, may at all times be conjoined with our meals. But it should be chiefly with a view rather of nourishing than repressing appetite, and therefore ought to be of a stimulating nature, as a glass or two of wine, and it should also be in such small quantities as not to affect materially the distension of the stomach, or prevent the organ from receiving the proportion of nourishment it requires. Hence, liquors of an inferior degree, or a diluent nature, should be rather used to close the repast than to interrupt the meal. When drink is used at any intermediate time between meals, the propriety of joining it with some solid food has been inculcated by many authors. But thirst and hunger are two different sensations, and the supplying the former does not necessarily interfere with the latter: in certain cases, indeed, where an immoderate use of stimulant liquors is the con-

quence of a depraved mode of life, the bad effects of this practice may be somewhat lessened by such a plan of procedure. Drink, however, when left to choice, should only properly succeed a meal, and be called in to assist the progress of digestion: it should consist, therefore, chiefly of the most digestible kind, and should be taken only in small quantity, as the exertion of the stomach seems to require assistance. On the whole, from what has been pointed out, though drink is a necessary and essential part of aliment, it should never be carried so far, either in respect to its quality or proportion, though not so hurtful as an excess of food. Yet its immoderate indulgence weakens the stomach and bowels, retards instead of hastening digestion, and by an improper dilution, makes the food pass off quickly. Hence, the mass of blood is thinned by it, from wanting the due proportion and consistence of its parts; and, in general, debility of the body ensues, distinguished by universal relaxation, and too copious a discharge of the different excretions. But, on the other hand, though it is rare, a rigid abstinence from drink is improper: by this error the solution of the food becomes incomplete, and digestion is too much impeded.

OF CLEANLINESS.

Cleanliness consists in the removal of every impurity from the body, whether generated by itself, and attached to the substances surrounding it, or merely affecting it by accidental contact. The want of it is considered by many practitioners as the chief cause of many diseases of the skin, among the lower classes of people; and this opinion is justly founded. Cleanliness is chiefly effected by simple ablution and change of dress. The ablution of the body should be frequent and general, and not confined simply to those parts that are exposed. Of the different parts, however, the head, face, and mouth, claim a principal regard; and also the hands and feet. The daily ablution of the face and hands is a practice so common as scarcely to deserve notice; that of the mouth, however, is often neglected. This should be done after every meal, as the refuse of the food naturally settles about the teeth, and, in consequence of heat, rapidly putrifies, and in this state acts on the teeth and gums, occasioning caries and tooth-ach. The breath also, from the same cause, is apt to require a disagreeable taint. In cleaning the mouth, the tongue and throat should not be forgotten; the former should be done every morning, with a piece of whalebone; after it, the throat should be regularly gargled several times with fresh

water. In cleaning the mouth, the chief attention has been generally paid to the teeth, and for the removal of the tartar or crust, which is apt to form on them. Every day brings forth a new remedy, either as a preventive or cure; the treatment of the teeth, however, should consist simply of washing or rubbing them with the finger, and joining occasionally to it some substance of a mild gritty nature, as the areca charcoal, to assist it in the separation of the tartar: all stronger applications are to be made with much caution, for in proportion as they produce cleanness of surface, they injure the enamel and destroy its texture. Tooth-picks are injurious, as loosening the teeth, and producing a recession of the gums. (See Prepared Charcoal, page 100; and Tooth-ach.) Attention to the feet is no less necessary than to the parts we have noticed. Their discharge, acted upon by heat and friction, as in warm weather, and after much walking, produces the most noxious and disagreeable smell. They should, therefore, be frequently bathed.

But besides these particular parts of the body, with many individuals an attempt at cleanliness is extended, and the body in general is every morning wiped with a wet sponge, so as to remove every impurity---a practice much to be commended, and the propriety of which is sufficiently apparent; indeed, where a habit of cleanliness is once established, no rules will be necessary, as the feelings of the individual will sufficiently point out to him what is proper in this respect. The frequency in the change of dress, the other part of cleanliness we noticed, must be entirely regulated by the materials worn, by the state of the season, and by the situation of the patient; no maxims, therefore, need be offered here, as every individual can easily judge for himself on this head. In the warm climates, an attention to it is carried so far, that people are in the habit of shifting twice a day: indeed, if articles of dress are once soiled, and next the skin, there is danger of absorption of their noxious matter, and their renewal, therefore, cannot be too speedy.

TEMPERANCE

Is the moderate use and enjoyment both of the necessities and luxuries of life; but here it particularly relates to what we eat or drink. It is one of those virtues which, of all others, has its own reward, for health and length of life are most frequently its attendants. Man, however, is less than any other animal inclined to observe its rules; and instinct in the brute creation, which regulates their conduct, is found superior in

his respect to the boasted reason of man. Temperance is especially necessary in the case of every invalid, whose constitution is either habitually weak, or rendered so by previous disease. Temperance, in such situations, has often been known to work miracles, and to have protracted life without inconvenience, nay, even with comfort and pleasure, to a very advanced stage. Of this the most remarkable instance is afforded in the celebrated Venetian Carnaro. Another, and recent instance, of the same kind, is offered in the celebrated Professor Black of Edinburgh, who, though seized with a spitting of blood in an early period, by a proper attention to his mode of life, protracted it, with much utility to mankind, to a very advanced period.

But though example is ever superior to precept, in the present instance it will be best to accompany this article with a view of the effects of temperance and intemperance, on the conduct and constitution of mankind, as ingeniously presented at one view by Dr. Lettsom, in his *Moral Thermometer*, published in a small tract, entitled "*The bad Effects of a little Drop.*"

A Moral and Physical Thermometer :

OR,
A SCALE OF THE PROGRESS
OF
TEMPERANCE AND INTEMPERANCE.

LIQUORS, with their EFFECTS in their usual Order.

TEMPERANCE.

70—	WATER	} Health, Wealth, Serenity of Mind, Reputation, long Life, and Happiness. Cheerfulness, Strength, and Nourishment — when taken only at Meals, and in moderate quantities.
60—	Milk and Water	
50—	Small Beer.....	
40—	Cyder and Perry	
30—	Wine	
20—	Porter	
10—	Strong Beer	
0—		

INTEMPERANCE.

		VICES.	DISEASES.	PUNISHMENTS.
10—	Punch.....	Idleness ;	Sickness ;	Debt ;
20—	Toddy and Crank	Peevishness ;	Puking ; and	
		Quarrelling ;	Tremors of the	Black-eyes ;
		Fighting ;	Hands in the	Rags ;
30—	{ Grog, and	Lying ;	Morning ;	Hunger ;
	{ Brandy and	Swearing ;	Bloatedness ;	Hospital ;
	{ Water	Obscenity ;	Inflamed Eyes ;	Poor-house ;
40—	Flip and Shrub ..	Swindling ;	Red Nose & Face ;	Jail ;
50—	{ Bitters infused	Perjury ;	Sore and swelled	Whipping ;
	{ in Spirits ..	Burglary ;	Legs ;	The Hulks ;
	{ Usquebaugh ..	Murder ;	Jaundice ;	Botany Bay ;
	{ Hysteric Water	SUICIDE,	Pains in the Limbs,	GALLOWS.
60—	{ Gin, Anniseed,		and Burning in	
	{ Brandy, Rum,		the Palms of the	
	{ and Whiskey,		Hands and Soles	
	{ in the Morning		of the Feet ;	
70—	{ Do. during the		Dropsy ;	
	{ Day and Night.		Epilepsy ;	
			Melancholy ;	
			Madness ;	
			Palsy ;	
			Apoplexy ;	
			DEATH.	

THE MANAGEMENT OF CHILDREN.

It appears, by the general bills of mortality, that no less than one half of the children born in this country die before they attain the age of six years*.

This mortality being peculiar to the human race, it is somewhat extraordinary that it did not attract the attention of the ancient physicians†. Of late, the source has been investigated, and the consequence is, that many of the vulgar errors in nursing, handed down from time immemorial, are so far abandoned, that nature and reason begin to take place of prejudice and ignorance. The calamity is chiefly to be attributed to their *being fed and clothed improperly*. That the present method of nursing is wrong, certainly needs no other proof than the frequent miscarriages attending it, the death of many, and the ill health of those that survive. The mortality of infants may, however, in some degree, be a natural evil, but the majority of instances may be justly ascribed to neglect or officiousness; for the brute creation, guided only by instinct, attend to the dictates of nature, and therefore few perish until the natural limit of their existence is completed; while man, the child of art and refinement, proud of his boasted reason, is every liable to err‡.

OF THE CLOTHING OF CHILDREN.

The first great mistake arises from the prejudice of nurses, in overloading and binding children with flannels, swathes, stays, &c. which render a healthy child so tender and chilly that it

* The average of the bills of mortality for ten successive years, in London and its environs, demonstrates that more than one half the children born within their limits die under seven years of age. In Manchester and Birmingham the proportion is nearly the same, but throughout the country very considerably less. Some have estimated the death of children in London to be at least double that in the country.

† It is remarkable that there was not a *rational* treatise on the management of children published in this country prior to that of Dr. William Cadogan, in the year 1776.

‡ Whatever may be the advantage of modern refinement to society, the life of man is certainly abridged by it; for uncultivated man is not only exempt from a number of diseases to which the civilized world is subject, but rarely dies till he has run his natural course.

cannot bear the external air *; and if by accident it should be exposed to a refreshing breeze, the consequence is frequently a serious inflammatory affection of the lungs or bowels; or if the child should survive the first month, it is then sent into the country, to be reared in a house that admits wind and air from every quarter! Now, a new-born infant, being *naturally warmer* than an adult, requires in proportion less clothing, and which should be put on so loose, that the bowels may have room, and the limbs liberty to act and exert themselves, that the circulation of blood, through the *superficial* vessels, may not be impeded, or malformation or unnatural swellings be produced by *partial* compression. To the latter are doubtless attributable the many distortions and deformities †, particularly among females, who suffer more in this respect than males. The great pleasure a child manifests on being divested of this superfluity of dress by all its powers of expression, one would suppose sufficient to convince nurses, were they capable of making just observations, that the free use of its muscles is more agreeable to its feelings, as well as necessary for its growth and strength.

A flannel waistcoat, *without* sleeves, made to fit the body, and tie *loosely* behind, with a petticoat ‡, and over this a kind of gown—both of the same thin, light, and flimsy materials—(the petticoat should not be quite so long as the child, the gown a few inches longer)—with one cap only on the head, and the linen

* The clothes of children should, in all cases, be proportioned to the climate and temperature of the atmosphere.

† The negro children in the West Indies are suffered to lie and tumble about on the floor from their earliest infancy in a naked state; and, with all the hardships they undergo at every period of life, there is scarcely a deformed negro to be seen amongst them;—a convincing proof that the *pressure* of clothes is a means of producing deformity, when we see on the other hand so many victims to it in this country.

‡ In putting on the petticoat great care should be taken not to confine the motion of the ribs. The bones of the chest are very tender, and the least pressure will produce distortion. The bowels of a child after two years of age, and some at an earlier period, require to be gently supported, and for this purpose a fine thin flannel waistcoat will answer best. It should be made to lace behind, from the bottom upwards. The intention of this waistcoat is merely to support the bowels, to prevent the relaxation and obstruction of the viscera which often take place in weakly children, and predispose them to rickets and bowel complaints. Beneath the laced part there should be a slip of flannel to defend the skin, which at the same time affords a support to the back bone.

as usual, I think abundantly sufficient for the day, laying aside all swathes *, bandages, stays, and the contrivances that are most ridiculously used to close and keep the bones of the head in their place; the latter of which, by confining and compressing the brain, have no doubt been productive of very serious mischief to that organ, and by keeping up irritation in it, may often produce that formidable disease commonly termed Watery Head. Shoes and stockings are likewise unnecessary encumbrances; the latter keep the legs wet and dirty if they are not changed two or three times a day, and the former too often tramp and hurt the feet, so as to prevent the child learning to walk. Children in this simple dress would be *perfectly easy*, and enjoy the free use of their limbs † and faculties. They should be put into it as soon as they are born, and continued in it till they are three years old, when it may be left off for any other more genteel and fashionable. They ought to be changed at least every day, to keep them free from sourness, which is prejudicial to the tender state of infancy. The night-dress should be only a *loose* flannel shirt, and less in quantity than those which are worn during the day, otherwise the child will be very liable to be affected with cold and complaints of the bowels.—Lap should be used instead of pins in putting on their napkins.

OF THE FEEDING OF CHILDREN.

In the feeding of children, great care should be taken that their food be wholesome and good, and that it be given in such quantity only as the body requires for its support and growth. In the business of nursing, as in physic, we should endeavour to follow the dictates of nature. When a child is born, it is full of blood and excrement; and it requires some intermediate time of abstinence and rest to compose and recover it from the effects of the pressure it may have sustained in the birth; as well as the slight fever arising from the revolutions it undergoes after delivery. If the child has sustained no in-

* It sometimes happens that a portion of intestines protrudes at the navel, through violent crying; in this case a *soft broad* piece of thin flannel, in the form of a roller, is necessary. It should never be made too tight, otherwise it may not only hurt the bowels, but perhaps produce rupture at the lower part of the belly.

† The unnatural custom of confining the limbs of a child during night cannot be too much reprobated or guarded against by parents: a simple contrivance to confine the hands, in order to prevent the child from rubbing or scratching its eyes, is often necessary; but the confinement of the legs should on no account be allowed.

jury, it will soon fall into a sound sleep of six or seven hours, when it will awake, refreshed and hungry. It should then be put to suck*; if there be no milk, the sucking of the infant will in a few hours infallibly bring it; and if nothing else be given, the child will grow strong, and the mother perfectly recover in a few days. The general practice of forcing down a child's throat, as soon as it is born, a lump of butter and sugar, or a little oil and syrup, with a view to cleanse the bowels, is exceedingly pernicious†. The mother's *first* milk is of a purgative nature, and cleanses a child of its excrements without griping or disordering the stomach and bowels; indeed such is its gentle aperient property, that no child can be deprived of it without manifest injury‡. By degrees, the milk becomes less purgative and more nourishing, and is unquestionably the best and only food the child likes, or ought to have, for *at least three* months. The call of nature should be waited for, to feed it with any thing more substantial; and the appetite always precede the food, not only with regard to the daily meals, but those changes of diet which increasing life requires.

I am well convinced that nine in ten of the diseases of children may justly be imputed to the mistakes of nurses, in the quality and quantity of food. With respect to quantity, it is a most ridiculous error to suppose, that whenever a child

* If the nipples of the mother be short, which is generally the case with the first child, they should be first drawn out by the nurse; and in case of being tender it will be proper to wash them with a little brandy, instead of the poisonous preparation of lead, recommended by quacks and officious nurses. If the mother has small, tender, or ulcerated nipples, the prepared nipples (from the teats of calves) will enable her to give suck with great comfort. These nipples are very delicately prepared by Messrs. Savigny, and, with care, will last many years. I have, in many instances, found them to answer when the mother, through ulceration or total deficiency of nipple, could not otherwise have suckled her infant. The ease and advantages they afford are so very considerable and important, that it is much to be regretted they are not better known to the faculty.

† A lady of respectability in the city of London had nearly lost her infant through the nurse giving him, soon after it was born, a table-spoonful of water, in which the end of a red-hot poker had been put for a few minutes; this was done, as she stated, to prevent the thrush.

‡ If the infant has been deprived of the first milk, by any untoward occurrence, a little oil of almond or fresh castor oil may be given for the purpose of emptying the bowels.

cries, it wants victuals, and thus to feed it twelve or more times in the course of a day and night. If the child's wants and motions be *diligently* and *judiciously* attended to, it will be found that it seldom if ever cries but from pain. Children no doubt suffer very acute pain from spasms, in consequence of the over-distension of the stomach by food; the nurse, notwithstanding, in order to pacify it, will persist in forcing down its throat fresh quantities; or otherwise, with the same view, it is put to suck, which will often relieve it by producing vomiting. If the stomach be frequently supplied with food, or be overloaded, it is impossible the whole can be properly digested; and hence, by undergoing a fermentation, a quantity of air is disengaged, and acidity generated, which, by producing spasms and irritation in the stomach and intestines, give rise to inward fits, convulsions, and not unfrequently inflammation of the bowels. The sensation of hunger being unattended with pain, a very young child will make other signs of its wants before it will cry for food. If it be healthy and quite easy in its dress, it will very rarely cry at all. Children that are fed only four or five times in twenty-four hours, are more healthy, active, and cheerful, than those who are never suffered to be hungry. The great fault in the quality of the food, is its not being simple enough. The addition of spices and wine to their pap, gruels, and panadas, is unnecessary; they were first only introduced by luxury, to the great destruction of the health of mankind. A child should not be kept entirely on vegetable food, on account of its tendency to fermentation in the stomach, and to the consequent production of an acid, which is the exciting cause of many diseases. As we are partly carnivorous animals, our offspring should not be entirely deprived of animal food, which corrects the acescent quality* of vegetables. The mother's milk, when good, appears to be a mixture of vegetable and animal properties; in the due proportion of which consists that salubrity of aliment our nature seems to require. I would advise, therefore, that one-fourth of their diet be *thin* and *light* broth free from fat, with a little arrow root, bread, or rice-flour. The admixture of animal jelly with that of the arrow root, recommended

* When this acid corruption of food predominates, which is obvious from *crude*, *white*, or *green* stools, gripes, and purgings, a little magnesia, or lime-water (see Magnesia), in mint-water, will prove the best remedy; but if attended with *much* pain in the bowels, known by the child's kicking and drawing up its legs, the absorbent mixture, No. 73, will prove more serviceable than magnesia alone.

under the head of arrow root, is likewise an excellent combination for weakly children. (See Arrow Root.) The other part of children's diet may be a little toasted bread, or tops and bottoms, boiled with a little water, almost dry, and then mixed with *fresh* milk, *not* boiled, the properties of the milk and its taste being much changed by heat. This, *without* spices, or any other pretended amendment whatever, will be perfectly light and wholesome. A sucking child may be fed twice a day at first, and not oftener; once with the broth and once with the milk thus prepared, in quantity just to satisfy its hunger. Children should always be fed in a sitting posture, that swallowing may be more easy to them. If a child be not accustomed to feeding at night it will not want it, but get into a habit of sleeping all or most part of the night very quietly, only waking when its napkin requires to be changed. It is night-feeding that makes children so over-fat and bloated. At the end of twelve months the child should be weaned, by degrees, that it may neither feel nor fret for the want of the breast.

Strong liquor of all kinds should be scrupulously avoided. The custom of giving a child spirits in its food, or in the form of toddy, with the supposed view of *preventing* gripes, is very pernicious. Such liquors, although well diluted, applied to their tender digestive organs, must unavoidably impair their functions, and may lay the foundation for a train of the most dangerous complaints. It has been urged in favour of this horrid unnatural practice, that many children, accustomed to a little spirits from a few days after birth, continue to thrive uninterruptedly; but such arguments only tend to prove that the vigour of constitution in these children was so great as to resist the usual effects of strong liquors.

Were this plan of nursing literally pursued, the children kept clean and sweet, tumbled and tossed about, played with and kept in good humour, and carried out every day when the weather admits of it, I am confident in the course of eight or nine months most children would become healthy and strong, and able to sit without support; to divert themselves an hour at a time, to the great relief of their nurses; would very readily find the use of their legs, and very soon shift for themselves. By this method of nursing, likewise, *hereditary* diseases may be suspended, and in course of time every taint and infirmity, the king's-evil and insanity not excepted, may be worn out.

It is a duty incumbent on every father to have his child nursed under *his own eye*, and to make use of *his own* reason and senses in superintending and directing the management of it; and that of the mother to *suckle it herself*; if she be healthy,

will confirm her health, if weakly, it will, in most cases, restore her*. It need be no confinement to her, or abridgement of her enjoyments, as three or four times in twenty-four hours will be often enough to give it suck. It may be fed and dressed by some reasonable servant, that will submit to be directed, and with whom it might likewise sleep. No other woman's milk can be so good for her child. *Dry nursing* is not only *unnatural*, but the most dangerous method of all; for not one child in six thus brought up, lives a year.

OF THE EXERCISE OF CHILDREN.

All our care in the feeding and clothing of infants will not succeed till, by due degrees, a child is brought to bear a good deal of exercise without fatigue. It should be pushed forward and taught to walk as soon as possible, so that at the end of twelve months it may (if healthy) be capable of walking alone. It is a vulgar error to suppose children are not to be put on

* * The luxuries which modern refinement has introduced in the manner of living, although they may not prevent every woman from being a mother, certainly render many very unfit for the office of a nurse; but when the mother is of a strong constitution, she is unquestionably the most proper nurse, and ought to be advised to undertake the task on account of her own health as well as that of her infant. When the milk of a brute is employed, that should be adopted which approaches nearest to the human. The milk of women is more light and thin, and contains a greater proportion of sugary principle, than that of any other animal. Ass's milk, in these respects, approaches nearest to woman's, and next to it the mare's, then the cow's, and then the sheep and goat's.

Women predisposed to consumption are the most prolific, and during gestation the disease of the lungs is generally suspended. When a consumptive lady is delivered, it is often a difficult point to determine whether she should suckle her infant or not. On account of the emaciation and weakness of the mother, most medical men suppose that suckling will hasten the progress of the disease; but so far from this being the case, I have uniformly found suckling to relieve the affection of the lungs, and to improve the general health. When the appetite is good, I would advise a consumptive mother, however emaciated or reduced the system may be, to suckle her child about two or three times in twenty-four hours, as the most likely means of restoring her to health. (See Consumption.)

It is worthy observation, that those mothers who have neglected to suckle their offspring are most subject to cancerous complaints of the breast and womb, and consumption of the lungs.

their legs, because they are weak or the least bent or crooked; daily experience shews crooked legs will grow, in time, strong and straight by frequent walking*, and that disuse makes them worse. The walks should be gradually increased every day, till they can go two miles without weariness, which they will very well be able to do in three years, if they be accustomed to it properly. From this daily exertion, they will, from the impulse of their own active vigour, soon be found running, leaping, and playing, all day long. Thus a dull heavy child may be made playful and sprightly, and a weakly one healthy and strong, and confirmed in good habits and permanent health.

There are other little niceties, which, were they observed in the nursing of children, would be of some service to them---such as making them lie *straight* in bed; I do not mean extended like a corpse, but that their limbs may be *free* and *easy*. They should be taught to use both hands alike; for employing one more than another † will make that hand and side of the

* Every member in a state of health acquires strength in proportion as it is exercised; and children by being accustomed to support themselves, will soon acquire strength for that purpose. When, however, the limbs are curved, the bowels much enlarged, and the child evidently disposed to rickets, the legs may not be equal to the support of the body. In this case, the child should be supported when put on the legs. Rolling or lying on the floor is a healthy exercise, while sitting is generally hurtful. (See Rickets.)

† On this absurd custom of parents and nurses, a late author observes, "Great pains are generally taken by mothers that their children should not be *left handed*, by which injudicious anxiety they are prevented from the full use of that member. Nature has given us two hands alike in form, equal in strength, and equally calculated for exertion; but by the present practice this gift is in a great measure abandoned, and one of them comparatively rendered inefficient. Were the same trouble taken to make children use only their right eye, the consequence to the left eye would be exactly similar. If, therefore, I have the good fortune to persuade sensible mothers to amend this universal error, I shall enjoy the satisfaction to think that I have in no small degree contributed to the good of society. I would recommend that children, from their earliest infancy, be habituated indiscriminately to use both hands, to alternate them in all their little manual occupations, and when sufficiently grown, they should be encouraged to cut their meat, and employ their exertions with either hand."—This author recommends the arms to be exercised by swinging the dumb-bells; but this exercise I have known to produce deformity. Riding on the rocking-horse is far preferable.

body bigger than the other, and is often the cause of crookedness; neither should they be always laid on the same side, nor carried constantly on the same arm. It would likewise not be amiss to forward their speaking plain, by repeating easy distinct words to them, instead of the jargon generally made use of by nurses.

Dr. Hamilton condemns the use of cradles for children, on account of their being *improperly used* by nurses. This author recommends a crib, to be so constructed as to be fixed to the side of the bed during the night, and to be easily carried from one room to another in the day-time: it must not be made to rock. In *cold* weather, however, the infant ought not to be allowed to sleep by itself, as heat is absolutely necessary to keep up the vital functions of a *very young* or *weakly* infant.

“ By arts like these
Laconia nurs'd of old her hardy sons,
And Rome's unconquer'd legions found their way,
Unhurt, through ev'ry toil, in ev'ry clime.”

INSTRUCTIONS FOR THE CHOICE OF A WET NURSE, &c.

A wet nurse should not only be clean, healthy, sober, and temperate, but likewise middle-aged, because at this period she will have more milk than the very young, and more and better than the old. Regard should be had to the time of their lying-in, and those procured who have not been brought to bed more than three months; for nature intending that a child should suck only twelve months, the milk seldom continues good much longer: about that time, women, though they give suck, are also apt to breed again; and some that are very sanguine, much sooner; which, and other periodical causes, disturb and affect the milk greatly, and therefore they are not proper nurses so long after their delivery*.

The nurse's food should consist of a proper mixture of flesh and vegetables: she should eat one hearty meal of *unsalted* meat every day, with a great deal of vegetables, and little bread, and thin broth or milk for her breakfast and supper, and her drink should not be stronger than good ale or porter.

* From chemical experiments, it appears that the milk of a woman varies at certain stages of suckling. If this fact, therefore, be duly considered, how important is it that this nourishment should agree with the child both as to age and its specific quality? This circumstance forcibly points out the propriety of a mother's suckling her own offspring where health admits of it.

If the child has not sucked its own mother, it should have a little purgative physic in a day or two after its birth, to carry off the long-hoarded excrements: for this purpose, a little manna may be given it, dissolved in water; or the nurse may take a little lenitive electuary, which, through the medium of the milk, will act on the bowels of the child: by these means, three or four stools should be procured in twenty-four hours.

The child should be kept awake by day, as long as it is disposed to be so, and great care be taken that no anodyne quack medicine be given, or means taken to lull or rock it to sleep, or to continue it asleep long, which is too much the custom of wet nurses, to save themselves the trouble of exercising it, to the great detriment of the child's health, spirits, and understanding. If the nurse has another child to support with her own milk, the sooner the child is fed, according to the method I have recommended, the better, as it is not likely she should have milk enough to support two.

As soon as the child has cut two teeth, it may be used to a little flesh meat, which it will be more fond of than confectionary or pastry wares, the latter of which will only debauch its taste and disorder the stomach.

OF THE DISEASES OF CHILDREN.

Having observed that the first and principal cause of almost all diseases that assail us during childhood is the acid corruption of the food, and it being easier to prevent diseases than to cure them, it will not be amiss to mention in this place a certain preventive, if given in due time.

On the first appearance of predominating acid, which is evinced by curdled, white, or green stools, gripes, and purgings, five grains of magnesia, No. 1, combined with two grains of rhubarb powder, No. 26, should be given in a little mint-water, or the prepared natron, as directed, No. 60, which will correct the sourness more effectually than prepared chalk, or the Gascoign ball, so generally employed by nurses; and instead of producing a costive state of the bowels, the certain consequence of these cretaceous absorbents, the magnesia and rhubarb, or prepared natron, will gently carry off the offending matter, and at the same time strengthen the stomach and bowels. If the purging, however, should continue excessive during the use of either of these medicines, the absorbent mixture, No. 73, may be substituted; and provided that should not restrain it, the cretaceous mixture, No. 64, will be necessary. (See Lime-water.) If the child be supported entirely

by the breast, the mother should live more on animal food; and if it be allowed spoon-meat, it should be the vegetable and animal combination mentioned under the head of Arrow Root. By the *early* employment of these remedies, many complaints may be prevented, which, from neglect, grow from bad to worse, and too often end fatally.

OF INWARD FITS.

This complaint is generally the first that appears in children, and to which most, if not all, children are more or less subject. The symptoms are, an appearance of being asleep with the eye-lids a little open, and frequently twinkling, with the eyes turned upwards; the muscles of the lips are affected with a tremulous motion, producing something like a smile, and sometimes almost the appearance of a laugh. The breathing becomes interrupted, and appears now and then to stop a little, with a considerable fluttering at the heart, and intermission of the pulse; the nose becomes pinched; a pale circle encompasses the eyes and mouth, often livid, and at times disappearing entirely. The child at length becomes so irritable and nervous, that it starts at the least noise; it will then sigh, and discharge wind, which affords a temporary relief, and presently relapses into a dozing. Sometimes it struggles very much before the wind is expelled; then vomiting, or a loud fit of crying, sets all right again. As the child advances, these fits generally go off by degrees spontaneously; or, by mismanagement in their diet, grow worse, are succeeded by fever or thrush; or end in vomiting, or sour, curdled, and green stools, and convulsions of the whole body.

Dr. Armstrong imputes them to a quantity of mucus squeezed out of the mouth of the glands and fauces, by the contraction of the muscles, and pressure of the nipple in the act of sucking, which, with the addition of the mucus of the gullet and stomach, mixing with the milk, renders it of a slimy consistence, by which means it is not readily taken up by the vessels for the nourishment of the body; and as there is in most children an acidity in the stomach, the milk is thereby curdled, which adds to the load; hence sickness and spasms are produced, which, by sympathy, being communicated to the gullet and fauces, occasion the convulsive motions enumerated above. Other authors, who coincide with the doctor in this opinion, think that they are aggravated, if not produced, by air swallowed with the milk during sucking, which, however, is more likely to be generated in the stomach than taken with the milk; nor can they be attributed to a corrupt or vitiated state of the saliva,

inasmuch as almost all children are more or less affected with them. Besides, if the doctor were right in imputing the disease to the *quantity* of mucus swallowed during *suction*, children that are not suffered to suck at all would be exempt from them; which we find, however, so far from being the case, that children brought up by the hand are more subject to them.

This complaint is produced by overloading the stomach with food, which, not being properly digested, becomes acid, and excites considerable irritation in the bowels. The mechanical distension of the stomach at the same time co-operates in producing spasms, which, extending to the diaphragm, heart, and lungs, may occasion sudden death.

The acid matter formed in the stomach, by irritating its internal surface, and that of the intestines, produces the disease termed thrush or aphthæ, which I have found more or less to exist throughout the intestinal canal of those infants I have had an opportunity of examining after death.

The cure will, of course, depend on avoiding the occasional cause, and by emptying the stomach and bowels by gentle emetics, and the use of calomel, No. 34, or basilic powder, No. 36. In case of violent purging, or gripes, the cretaceous mixture, No. 64, will also be necessary: and the warm-bath, or a blister on the chest, if the breath be affected. The almond emulsion, noticed in the Appendix, is not only an excellent beverage, but also the best medicine if the bowels appear to be in fault, and if the system be feverish. Spirit of hartshorn, sal volatile, tincture of asafoetida, and other *stimulating* antispasmodics, so frequently prescribed in those cases, generally aggravate the symptoms, by increasing fever or irritability of the system.

In cases of inward fits, and especially if the thrush appear in the mouth, the infant should be supported entirely on the breast; and if the mind of the mother be disturbed by the affliction of the child, an healthy wet nurse should be procured as soon as possible; for if the irritation be kept up in the stomach many days, the nervous system of the child will be greatly disturbed, and a state of body produced which will re-act on the complaint, and render its recovery very doubtful.

OF CONVULSIONS OF CHILDREN.

Children are very subject to convulsive fits, from the greater degree of irritability of the nervous system. Convulsions originate from such a variety of causes, and, of course, require such different treatment, that a practitioner of skill and expe-

ence should always be consulted on their *first appearance*. When they are occasioned by dentition, they are less dangerous.

In all cases of the convulsions of children, great attention should be paid to the state of the stomach and bowels; if they appear to be in fault, the basilic powder, No. 36, will prove of considerable advantage, and often effectually cure them. If they arise from difficult dentition, small doses of liquid laudanum, after the due operation of the basilic powder, will be proper. (See Dentition) If they are attended with a determination of blood to the head, or that chronic inflammation of the membranes of the brain which precedes the disease termed intery head, blisters to the head and feet, the application of leeches to the temples, and active purgatives, are necessary. The convulsions of children are generally symptomatic of some local irritation, as cutting of the teeth, worms, bad digestion, &c.

OF DENTITION, OR THE CUTTING OF TEETH.

The children that are properly fed and exercised generally cut their teeth without any inconvenience; while the systems of those who are over-fed, and not sufficiently exercised, are more or less disturbed by this simple operation, producing often dangerous symptoms*.

The period of teething generally commences between the fifth and tenth month †, and the process of the first set, which consists of sixteen, continues for nearly two years.

The bad symptoms that occur during this operation of nature are—restlessness, frequent and sudden startings, especially in sleep, costiveness, and sometimes violent looseness, fever, or convulsions. In general, those children breed their teeth with the greatest ease who have a moderate laxity of the bowels, and a plentiful flow of spittle. A costive state of the bowels, as tending to increase the inflammatory disposition of the constitution, should be guarded against, by giving occasionally a little magnesia and rhubarb, or senna (see No. 50); and when excessive looseness occurs, it should be moderated by a mixture with

* Hereditary diseases, which might otherwise have lain dormant, are frequently put into action by the irritation and fever attendant on dentition: hence the first appearance of coughs, rickets, and various forms of scrophula, may be traced to this period. Teething may, therefore, be considered a very critical time of the life of a child.

† Children are sometimes born with teeth, but they seldom or ever last long.

lime-water, No. 64, or two drops of laudanum, No. 31, in a little mint-water, to which six or eight grains of the cretaceous powder, No. 29, or prepared chalk, may be added if very violent; and if the skin be dry, and the child feverish, one grain of ipecacuan will prove useful, by producing perspiration. Laudanum, in small doses of one or two drops, is a very important remedy in this instance; and by diminishing the general irritation of the system, will prevent fever and convulsions. If its frequent exhibition produce a costive state of the bowels, a little magnesia should be given with it, and the cretaceous powder omitted. (See Diarrhœa.)

As children about this period are generally disposed to chew every thing they can get into their hands, they should always have something to play with that will *yield* to the pressure of their gums. The Indian-rubber, or elastic gum, secured round the end of a rattle, I have found for this purpose to answer best*. The repeated muscular action, occasioned by the constant biting and gnawing of such a substance, will increase the discharge from the salivary glands, while the gums will be so forcibly pressed against the advancing teeth, as to make them break out much sooner, and with less uneasiness than would otherwise happen. If these means should prove ineffectual, and bad symptoms begin to appear, the inflamed gum should be lanced; and if the tooth be so far advanced as to be *distinctly* felt beneath the gum, the incision should be made down to it†.

When the system is disturbed by teething, the treatment must, however, depend on the state of constitution. If it be of a full habit, purgative medicines, the loss of blood by leeches (from the head), the warm-bath, and a low diet, are often necessary; but when, on the contrary, the child is weakly, of a relaxed habit, or disposed to rickets, it should be supported by a nourishing diet, and a little Port wine. In this latter instance, it seldom happens that the constitution is disturbed; but when it is, it will be quieted by cordials, which in the former case would aggravate the sufferings of the little patient.

In children of full habits, a quantity of pure blood is often discharged from the intestines during dentition, which relieves the system, and prevents further mischief.

* The coral generally given to children at this time to bite, from its hardness, certainly renders the gums more callous, and consequently dentition more difficult and painful.

† Very superficial scarrifications of the gums, when they are swollen, or very hot, often afford immediate relief, and quiet the whole system.

SWELLING OF THE BREASTS OF INFANTS.

A slight distension of the breasts of new-born infants, from collection of whitish serous fluid resembling milk, is a very common occurrence in both sexes, and is of little consequence, unless inflammation be excited by the preposterous practice of nurses attempting to squeeze out the fluid. If the parts be not irritated by pressure, it will go off gradually, without the aid of medicine; but in case of much inflammation, a little brandy may be applied, by means of some fine old linen, three times a day. Oily applications, with friction, so frequently employed by nurses, and even recommended by some practitioners, are very improper, and never fail to produce fresh mischief.

But if the inflammatory symptoms should run high, the most active means should be adopted for its dispersion, such as the application of two or three leeches, a discutient lotion of equal parts of brandy and vinegar, applied cold, and an aperient medicine (magnesia and rhubarb); as the formation of matter might not only leave an ugly scar, but in the female might injure the gland of the breast, so as to render her at any future period unfit for the office of suckling. If the inflammation should, notwithstanding, advance to maturation, the early advice of a surgeon should not be neglected.

INFLAMED OR SORE EYES OF INFANTS.

Inflammation of the eye-lids and eyes, especially such as are attended with a discharge of thick matter, should, in children, be considered of too great importance to constitute a part of domestic medicine, as it frequently terminates in adhesion of the coats of the eyes, and thus occasions permanent blindness: the advice of a surgeon should be taken in the first instance, while there is a prospect of its being attended with advantage.

A small blister behind the ear, or to the nape of the neck, leech to the eye-lid, the basilic powder, No. 36, or calomel, No. 34, and the continued application of a lotion made by dissolving two grains of white vitriol in four ounces of water, will often succeed in curing the most obstinate attacks. The eye-lids should be opened, and the lotion dropped between them, as well as applied externally, by means of folds of soft linen. If the child be of a scrophulous habit, or subject to sore eyes on taking cold, an issue in the arm will not only correct the constitution, but, by keeping down the inflammatory state of it, render the eyes less liable to inflammation.

The frequent recurrence of inflammatory attacks will produce incurable blindness.

OF GALLING OF INFANTS.

The inflammation and slight excoriations which frequently occur in the groin, between the legs, termed galling, are not only painful to the infant, but often perplexing to the nurse, especially if the child be much loaded with fat. It generally arises from inattention to cleanliness, but sometimes from the use of coarse or new napkins.

The cure may always be effected by first washing the parts with cold water, and afterwards gently besmearing the surface with fine fuller's-earth moistened with water. If it be situated in the groin, or near the genitals, it should (after being washed) be covered with a little *fresh* spermaceti ointment, to defend it from the action of the urine, the saline particles of which producing much pain, and increasing the inflammation. The moistened fuller's-earth may afterwards be applied as directed above.

Milk, so frequently employed by nurses as a wash in these cases, by turning sour on the part, often excites fresh irritation.

A preparation of lead, termed ceruse powder, is in very general use, as a dusting powder, for children: it is, however, a very dangerous application; and I have no doubt has occasioned the death of many children, by producing convulsions and inflammation of the bowels, instances of which I have noticed under the head of Goulard's Extract of Lead, No. 30.

In the Domestic Medicine of Dr. Buchan, the *sugar of lead* is imprudently recommended to be added to an absorbent powder when the parts are very sore, or tend to ulceration, without even specifying the quantity. The doctor should have known that lead, in a saline state, is a dangerous application for adults, and much more so for infants.

From the inattention of medical men to these particulars in the management of infants, I am persuaded their diseases are often referred to a wrong cause, and their lives absolutely destroyed by the prejudices and ignorance of nurses.

OF THE RED-GUM.

This disease consists in an eruption of small pimples in the skin, which are evident to the touch, generally red, but sometimes yellowish. It appears for the most part on the face, and sometimes on the body and extremities, in clusters or large

atches. It is considered by most medical practitioners to be salutary, and it often seems to relieve infants of complaints of the bowels, and difficulty of breathing; but sometimes it is attended with no such benefit, and may frequently be traced to some imprudent practice of the nurse, either in washing the infant with brandy as soon as it was born (from a mistaken notion that it hardens the skin), or by roughly washing it with soap, for the purpose of removing the thick glutinous matter with which all infants are more or less covered when born, and which I have no doubt is intended by nature to protect the tender skin during its foetal state, and to guard it against the action of the atmospheric air on its delivery. If the slimy covering be removed in such quantity as gentle washing with warm water and a soft old piece of linen will take off, it will leave the skin white and healthy, instead of the dark, red, and irritable state occasioned by the spirit*, soap†, and friction, employed for its removal.

As the eruption may sometimes be critical, it would not be advisable to employ any *external* application to repel it, but rather to prevent its sudden repulsion, by avoiding exposure to cold air, and by keeping the bowels gently open with magnesia and rhubarb: and should it suddenly disappear, and the child be evidently indisposed in consequence of it, the warm-bath and a gentle emetic of ipecacuan will be necessary, which, by producing a determination to the skin, generally succeeds to expel it. If cough or difficulty of breathing, or a violent affection of the bowels, intervene, medical advice should be immediately resorted to.

OF THE THRUSH.

This disease appears in white specks on the corner of the lips, the tongue, and back part of the palate, sometimes gradually spreading over the inside of the mouth, and throughout

* The evaporation of spirits from the surface of the body, either of an infant or an adult, generates such a degree of cold as to check insensible perspiration, so as to occasion inflammation of the brain, lungs, bowels, or eyes: the practice, likewise, instead of hardening the skin, renders it more tender; it cannot, therefore, be too much deprecated.

† The most simple wash for children is a water in which some almond powder has been rubbed between the hands; or fine almond powder may be used instead of soap: it will, in all cases, answer better than soap, the alkaline salt of which injures the skin, while the almond powder renders it healthy.

the intestinal canal. Infants brought up by the hand are most subject to this disorder, and to those it does not unfrequently prove fatal.

The cure of Thrush will depend on a change of diet, to a proper combination of vegetable and animal jellies, as directed under the head of arrow root; or the employment of veal-broth, or beef-tea, thickened with arrow root or fine wheat flour. A costive state of the bowels should be obviated, by occasional doses of magnesia, with either calomel or rhubarb, and the parts affected touched with the following detergent liniment three or four times a day, by means of a large camel-hair pencil:

Take of honey of roses, one ounce;
Muriatic acid, ten drops;
Liquid laudanum, forty drops. Mix.

Borax, well mixed with honey, in the proportion of one drachm of the former to an ounce of the latter, has been much recommended, and, on account of its consistency, will often answer better than a thin liniment.

In the advanced stage of Thrush, when the system is much reduced, the child must be supported by Port wine and nourishing jellies.—The observations made on the treatment of inward fits, page 151, apply to this disease.

In the treatment of Thrush, it is therefore necessary to attend to the diet of the infant; to take care that the food be not given too hot; to correct acidity either by magnesia or lime-water, according to the state of the bowels, as directed under the head of Magnesia, and by the topical application of the detergent liniment. If the child be restless, the use of laudanum, as directed in cases of difficult dentition, will be necessary.

The other diseases of infants are noticed, in their alphabetical order, in the second part of this work.

DESCRIPTION, &c. OF MEDICINE CHESTS:

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The chests are neatly made of mahogany, and the bottles of flint glass, with glass stoppers, carefully ground. The bottles and drawers have printed labels affixed to them, expressive of their contents, with a numerical reference to the first part of this work.

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First size, as described page 4	20	8	6
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The Country Clergyman's Dispensary.

This chest is made chiefly of oak, on a very economical plan, and supplied with black square bottles. It contains on the top, 4 wide and 11 narrow mouthed half-pint bottles—7 wide and 11 narrow mouthed quarter-pint bottles; and a drawer with 6 small bottles, 4 pots for ointments, and partitions for plasters, lint, scales and weights, pestle and mortar, graduated measure, bolus knife, spatula, tourniquet, &c. &c. Containing the same number and quantity of medicines and implements as the second size mahogany Family Dispensary.—9*l.* 5*s.*

The Sea Medicine Chest.—From 14*l.* 12*s.* to 32*l.* 12*s.*

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(The greatest care is taken in the preparation of the tests, so that they may be perfectly free from those impurities or heterogeneous combinations which, in nice experiments, often give rise to false conclusions and incorrect results.)

	<i>L.</i>	<i>s.</i>	<i>d.</i>
Largest size, complete	25	4	0
Second size, complete	18	18	0
Third size, complete	12	6	0
Fourth size, complete	8	10	0
Fifth size, complete	5	10	0

Mineralogical Chest.—Containing re-agents, and implements for analysing minerals.

	<i>L.</i>	<i>s.</i>	<i>d.</i>
First size, complete	10	10	0
Second size, complete	8	10	0
Third size, complete	6	10	0

Veterinary Chest, or Gentleman's Stable Dispensary.—

From 7*l.* 10*s.* to 12*l.* 6*s.* and upwards.

(The great advantages of this chest consist in the medicines being carefully prepared with drugs of the best quality, instead of the trash generally sold for the use of horses, which possesses little or no medicinal properties.—The cases are made with mahogany and oak, and furnished with common glass bottles.

* * * Family medicine chests are re-furnished with medicines and bottles, or allowance made for them in exchange for any of the improved dispensaries.

TO
HER GRACE
THE DUCHESS OF LEEDS,

A LADY EQUALLY DISTINGUISHED FOR GENUINE
PHILANTHROPY AND DOMESTIC ACCOMPLISH-
MENTS AS FOR HER HIGH RANK,

THIS SECOND PART

OF THE

Medical Guide,

CONTAINING

A PRACTICAL TREATISE ON THE CAUSES, PREVENTION,
ALLEVIATION, AND CURE, OF THE DISEASES
INCIDENT TO HUMANITY,

(A WORK LONG HONoured BY HER GRACE'S RECOMMENDATION),

IS MOST RESPECTFULLY INSCRIBED,

AS A TRIBUTE OF GRATITUDE,

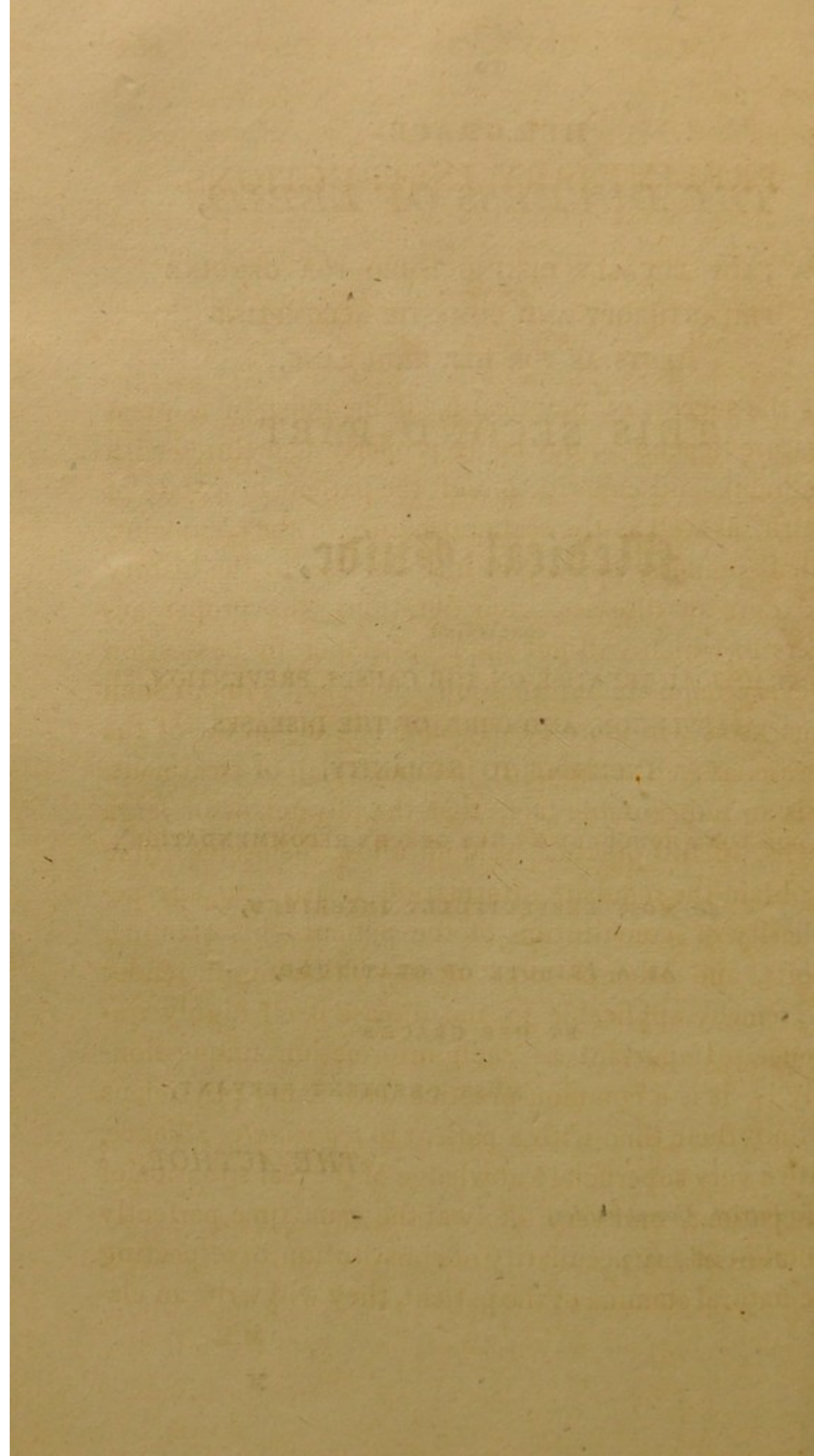
BY HER GRACE'S

MOST OBEIENT SERVANT,

THE AUTHOR,

Bedford-street, Covent-garden,

JULY 20th, 1812.



PRELIMINARY INSTRUCTIONS.

As the success of practical medicine must in a great measure depend on our being properly acquainted with the habits and constitution of the patient in a state of health, as well as the seat and nature of the complaint, I shall premise, by way of introduction to the history and cure of diseases, such questions, the proper answers to which will put the practitioner in possession of every requisite information; and shall subjoin such remarks as will more clearly elucidate the nature of the disease, as well as the most judicious plan of treatment. It is an indisputable fact, that the physicians of large towns, in full practice, seldom allow themselves time to obtain the requisite information relative to any peculiarity of constitution of the patient—his stamina, habits, and other circumstances—which might render the remedy applicable to the disease itself highly improper. Important as such information unquestionably is, it is a common practice with many physicians to limit their time with a patient to *ten minutes*; hence, with a very superficial knowledge of the real situation of the patient, and very likely at the same time perfectly ignorant of any peculiarity of constitution, or respecting the natural stamina of the patient, they will write an ela-

borate and mysterious prescription, and, with a grave countenance, give some few directions as to diet, &c. With such physicians, it is but too evident the only object of interest is the fee! Such is the practice of those routine physicians who degrade their profession into a trade, which is comparatively more disgraceful than that of the lowest mechanic.

A person who takes upon himself the office of attending the sick, should possess a humane disposition and benevolent intentions. He should consider, that his commission is of a large extent, and that it comprehends *every thing* that may in any way tend to restore or improve the health of his patients. Compassion towards the distressed is a general obligation, but bears a peculiar reference to a profession the sole employment of which consists in relieving a large class of the miseries of human nature. Humanity and benevolence should be apparent in every part of our conduct towards the sick. We should not only possess these virtues, but exercise them in the mildest and most agreeable manner.—“Gentleness of behaviour,” observes an elegant and humane writer, “makes the approach of a physician be felt like that of a guardian angel, sent to afford ease and comfort, whilst the visits of the rough and unfeeling resemble those of a minister of vengeance and destruction.”

Although humanity should be the leading trait in our character, we should take care not to indulge ourselves in sympathetic tenderness to such a length as to enervate our minds, or incapacitate us in any degree to relieve the distresses that are so much the objects of our

commiseration. Steadiness of character, and presence of mind, are no less requisite to form the physician. "A certain degree of tenderness," observes the same writer, "is so far from being inconsistent with these qualities, that it tends greatly to promote them, by furnishing a powerful motive for their exertion; but when carried too far, it is apt to disappoint its own purpose." It is not the least advantage that is derived from the attendance of a physician, that although he be sufficiently interested to excite the best endeavours for his patient's recovery, he is generally free from those agitations which the more immediate connections of the sick must feel in the dangerous situation of their friend, and which must necessarily cloud the judgment, and embarrass the conduct of those liable to such perturbation.

We should maintain a proper degree of influence and authority with our patients, which is far from being inconsistent with sympathy and tenderness. This is requisite, that our directions may be properly regarded. If a physician lose his authority, the patient is essentially injured, in consequence of no fixed or steady plan of treatment being pursued. Remedies are advised without prudence, and left off before sufficient trial of them could be made. These are multiplied by the officious impertinence of curiosity, which but too frequently intrudes upon the sick, under the disguise of friendship; and should the patient, from the inactivity of the medicine, be so fortunate as to escape positive injury, it often happens that the critical moments are suffered to elapse, in which something might have been done towards his recovery.

The pleasing manner which accompanies the performance of our offices to the sick, renders them doubly valuable. It augments even the efficacy of medicine, by the comfort and support it affords to the spirits; and is not less serviceable in cases wherein even a relief of the disorder is scarcely an object of hope, by reconciling the patient to his situation, which contributes above all things to soften the bed of sickness, and, beyond the power of flattery, “to soothe the cold dead ear of death.”

To point out, however, the line of conduct we should on all occasions pursue, would far exceed the limits of these introductory remarks.

I shall therefore briefly conclude with the observation, that our conduct as physicians should be regulated by the precepts of Christianity. Instead, therefore, of being actuated by sordid motives, we should endeavour to realise the abstract refinement of philosophers—*That we were born NOT for ourselves, and live BUT for others.*

GENERAL QUESTIONS TO PATIENTS.

Q. *Of what age is the patient? Has he, prior to his present illness, enjoyed good health? Is his constitution naturally good, or impaired by any irregularity?*

In acute diseases—as inflammation of the lungs, pleurisy, inflammatory fever, &c.—the propriety of blood-letting, its extent and repetition, as well as the use of aperient and diaphoretic medicines, must in a great measure depend on the age, natural constitution, and habits, of the patient.

Q. *How long has he been ill? In what manner was he attacked? Is the complaint stationary, or is the patient worse or better, and in what respect?*

In fevers of all kinds, it is of great importance that the practitioner be acquainted with the stage of the disease, and whether the patient be in a convalescent state.

Diseases are divided by authors, from the *period* of their *duration*, into two kinds, named *acute* and *chronic*. The period of an acute disease has been limited to within forty days; if it extend beyond that time, it is regarded as chronic. The general symptoms of acute disease are a quick pulse, heat of skin, thirst, furred tongue, pain in the loins or limbs, an incapacity of attention or exertion of mind.—These distinctions are not sanctioned by practice, for some diseases continue in an active state a much longer period, and some chronic diseases exhibit symptoms of an acute nature. In all diseases it is of great importance to decide whether it be super-irritative or sub-irritative; directions for which are given in the introduction to the first part of this work.

Q. *Is he affected with slight shiverings (rigours)? Is he feverish? Does he complain of pain in the head or chest?*

In rheumatism or cough, it is of great consequence to be acquainted with the state of the system; for in case of fever, or a feverish disposition (indicated by rigours, increased heat, pains in the head or chest, and quickness of pulse), the guaiac gum, and other stimulating medicines, would be injurious in the former disease, and the paregoric elixir in the latter.

Rigours attendant on cough, indicate some serious mischief to be going on in the lungs. When rigours attend acute pains in the bowels, the disease may be suspected to be of an inflammatory nature, and not common colic. In cases of deep-seated pain, particularly in the loins, rigours denote the pain to arise from inflammation; and if the rigours continue to recur for a week or ten days after the first attack of pain, the disease is not to be considered rheumatic, but inflammatory.

and that suppuration will probably take place if very active means be not employed to prevent it.

Q. Is he restless or quiet? Has he been accustomed to take laudanum? and in what quantity?

In super-irritative and sub-irritative diseases, a knowledge of these circumstances will determine whether laudanum may be administered alone, or added to any other medicine, and the dose.

Q. Is he affected with heat, shiverings?

In cases of rheumatism, cough, pains in the head and bowels, these questions answered in the affirmative, prove that the disease is of an inflammatory nature, and that whatever tends to stimulate the system should be avoided, both in medicine and diet.

Q. Is he affected with pain in any part of the body?

In all fevers it is of great importance to attend to local pains; for inflammatory fever often terminates fatally, by producing inflammation either of the brain, lungs, or bowels, which, by early attention, may be in general obviated by the application of leeches, blisters, &c. If local inflammation should appear, during fever, in any part of the body, not necessary for life, and in which suppuration is not likely to be attended with any serious consequence, it should be encouraged by warm poultices, rather than dispersed by any cold application. When dispersion is deemed necessary, it should be attempted by extracting blood from the part, or by scarrification; and if the joints be attacked, also by blistering.

Q. Is he affected with shivering fits? Are they succeeded by heat and perspiration?

All inflammatory diseases are generally ushered in by the slight shiverings termed rigours, which are succeeded by an increased heat of the body, and sometimes by perspiration. These symptoms occurring during inflammatory fever, or local inflammation, so deceive an inexperienced practitioner, as to induce him to consider the disease a species of ague, and thus lead to the improper exhibition of the Peruvian bark. In doubtful cases it will be necessary to enquire how often the shiverings occur; and if only once a day, at what period, how long they last, and also the degree of heat and perspiration, and particularly if there be an evident intermission after the termination of the perspiration till the re-occurrence of the shiverings; and also if any local mischief be going on in the system, of which the shiverings may be symptomatic. The Peruvian bark, or stimulants of any kind, should not be administered in cases of shivering, until it be manifestly ague, as a considerable aggravation of the inflammatory symptoms might

be thereby produced. An emetic and the saline mixture are proper in ambiguous cases, till its real nature be ascertained, which a few days will decide.

Q. Is the tongue furred, and what colour? Is there a disagreeable taste in the mouth, nausea in the stomach, or loss of appetite?

These questions will determine the propriety of exhibiting an emetic, particularly in cases of indigestion, and the commencement of fevers. The colour of the tongue, in ambiguous fevers, with a declining state of the strength of the patient, will often decide its nature. Physicians, in almost every disease, and particularly in fevers, examine the state of the tongue, for by it they are enabled to judge of the condition of the stomach; of thirst, or rather the occasion the patient has for drink, when, on account of delirium or stupor, he neither feels his thirst, nor is capable of calling for drink:—from an inspection of the tongue, a judgment may be formed concerning the nature, increase, and remission of fever. When the tongue is dry, and covered with a dark scurf, attended with wandering of the mind and dejected countenance, there will be reason to suspect the fever to be putrid, or strongly disposed to it. When the tongue becomes moist, and the edge clean and red, the patient may be considered in a convalescent state.

Q. Are the bowels properly relieved, or in a regular state?

In all diseases, it is absolutely necessary to be acquainted with the state of the bowels. In acute or inflammatory diseases, they should be kept open; and in chronic complaints, costiveness should be avoided. If purging should occur, without the aid of medicine, during inflammatory fever, it should not be checked, but moderated. Even in putrid fever, where the strength of the patient is much reduced, it is often of great service.

Q. Are the stools pale, dark, or bilious?

In jaundice, the colour of the stools shews whether there be any obstruction to the free passage of the bile into the intestinal canal. If they are dark, slimy, and offensive, it is evident that digestion does not go on well, and that there is irritation in the intestinal canal. If they are pale, it is a proof there is a deficiency of the secretion of bile.

Q. Are the stools copious, hard, or liquid; and is there any irritation at the fundament, or inclination to go to stool without being able to evacuate any fæces?

The quantity of fæces evacuated is of as great consequence as frequency, for a person may have frequent motions from irritation at the fundament, and yet not be purged. The matter

evacuated is often nothing but mucus, from irritation in the great intestine, which is termed *tenesmus*, and not purging. In cases of purging, it is necessary to enquire whether the stools are soft, or whether they come away in hard lumps, with a quantity of slime. When the discharge consists of soft or liquid fæces, it is termed *diarrhœa*; but when it is slimy, and the fæces are in *hard lumps*, it is termed *dysentery*.

Q. *Is the pulse weak, strong, quick, frequent; or does it intermit*?*

By the pulse, we judge of the state of the circulation with respect to fulness, and the state of the nervous system; for the heart and arteries receiving their power of action from the brain, the manner in which the pulsation is performed will shew whether the nervous or cerebral system is in a morbid state of irritation. To draw an accurate conclusion from the state of the pulse during disease, we should have some knowledge of it when in health, for the pulse differs materially in different subjects. A full or oppressed pulse indicates the sanguiferous system as overloaded: a small frequent pulse, with a cool skin, indicates weakness: a quick pulse shews great irritation of the cerebral or nervous system. It often happens, that a pulse, indicative of great weakness, is attendant on inflammation of the lungs, stomach, intestines, and brain; but in these, and the like examples, the *nature* of the malady, and not the *state of the pulse*, must determine the necessity of blood-letting. When the pulsations *rapidly* follow each other, it is said to be *frequent*, which may also be *full, strong, and hard*, or *soft, small, and weak*. When the pulsation is performed with great *celerity*, although the *intervals* be long, it is termed *quick*. A *slow* pulse may, therefore, be *quick*, and a *frequent* pulse *not quick*; the term *quick* applying to the pulsation, and not to the *interval* of the pulsation, to which the term *frequent* applies. When the strokes do not follow the usual interval, and sometimes not till after twice, thrice, or four times the usual space, it is termed *intermittent*. In some animals, this pulse appears to be almost natural, and is common to some people even in a state of health. An intermittent pulse arises from an unequal influx of the blood into the heart, from increased irritability, or disease of the organ itself. Sometimes it is produced by pressure of a tumour, or water in the chest or pericardium.

* The pulse is the beating or distending of an artery, from blood propelled into it by the heart. The *intervals* of the pulsations are the times when the heart itself is distended with blood.

The pulse of a child should be felt whilst it is asleep, on account of its being so easily quickened by new sensations. The pulse of a healthy infant, on the day of its birth, is between 130 and 140 strokes in a minute; the mean rate during the first month, 120; and rarely, if ever, below 108. During the first year, the limits may be from 108 to 120; the second year, 90 and 100; the third year, 80 and 100; the fourth, fifth, and sixth, nearly the same as the third. The seventh year it is sometimes 72, but generally more. The twelfth, about 70. In adults it is usually from a little below 60 to a little above 80. The natural pulse of some people is as low as 25.

It must be remembered, that the pulse in health varies in the course of the day. In the morning it is slow; after a full meal it is quickened 10 or 12 strokes in a minute. Even during fever it varies much, according to the state of the skin. When the skin is dry, it is often 20 or 30 strokes more frequent than when it perspires freely. Position of body also makes some difference: in an incumbent posture, it is more frequent (about 5 strokes in a minute) than when erect.

When the pulse is so far accelerated as to exceed the healthy standard 15 or 20 pulsations in a minute, some disorder in the system may be apprehended. But the irritability of a child and some adults is such, that a *very slight* fever will considerably increase the frequency of the pulse when no danger attends; and as there is in children much difficulty in counting the pulse when it is at 180 and upwards, we are better enabled to judge of the danger of fevers in them by the countenance, thirst, quickness of breathing, aversion to food, pain, and restlessness, than by the pulse.

We must take care that we are not deceived by what is termed an *oppressed pulse*, which is the effect of an overloaded state of the sanguiferous system; the heart, in consequence, not being able to contract with sufficient force properly to propel the blood through the arterial system. This is accompanied with other symptoms of plethora and distension of the vessels of the head and chest, occasioning head-ach, giddiness, difficulty of breathing, &c.

Many physicians make use of a watch at the time of feeling the pulse. This I conceive cannot in any instance be necessary; for it is not altogether by the *number* of pulsations in a given time that we are to form an opinion, but by the *manner* in which they are performed. Hence the pulse of a patient with fever will be very quick for a few pulsations, then slow and languid, and at other times it will intermit; so that saying it beats at the rate of 90 or 100 in a minute, is next to saying nothing. Besides, every medical man should be able to say

how frequent a pulse is, within two or three pulsations in a minute, without the aid of a watch. If he cannot, he must have benefited little by his experience. I have observed that it is the ostentatious and ignorant only that make use of a watch in such cases. The physician should not feel the pulse of his patient till he has been a few minutes in his company, for the agitation generally produced on his first appearance has a great effect on the pulse.

Some further observations on the state of the pulse, as indicating the propriety of bleeding, are made in page 120, under the head of Phlebotomy.

Q. Of what colour and consistence is the urine? Does it deposit a sediment?

When a fever is abating, and drawing to a favourable crisis, the urine generally deposits a lateritious sediment. In putrid fever it emits an offensive smell, and is often tinged with blood. In the last stage of pulmonary consumption, it is also offensive to the smell, and deposits a whitish matter. In cases of pains in the loins, the state of the urine will often determine whether the kidneys are the seat of the disease.

In hysterical affections the urine is pale and thin. In debilitated individuals it has a frothy head, which often remains a considerable time, on account of its abounding with viscid and oily particles. When the stomach is disordered, it deposits a sediment resembling brick-dust.

Q. Is he troubled with night-sweats? Are they preceded by rigours and heat? At what time do they come on? Are they copious, confined chiefly to the breasts; and do they smell strong?

In cases of inflammatory fevers, perspirations may be considered critical, and should not be checked, unless they are so excessive as to weaken the patient.

Q. Is the skin moist, or dry and hot?

In all fevers, and internal inflammatory attacks, it is very necessary to attend to the state of the skin, for in those complaints it is of the first consequence to produce a moist surface. By the evaporation of perspirable matter, superabundant heat, and probably electric matter, are conducted from the body.—A dry skin, on the contrary, favours the accumulation of heat in the system.

The perspiration or sweat is very analogous to the urine; and when either of these secretions is diminished, the other is generally increased, so that they who perspire the least make the most water, and *vice versa*.

Copious perspiration, attended with a sense of general lassitude, and a feeble pulse, indicates great debility or laxity of the cutaneous vessels.

Q. *Does he void much urine?*

An excessive evacuation of urine, like excessive perspiration, is a frequent cause of debility and emaciation of the body. In tropical cases, it is of great consequence to know whether the kidneys perform their office, for dropsy will sometimes arise from a sluggish state of the kidneys.

Q. *Is his sleep quiet or disturbed?*

This question, in cases of fevers, will sometimes determine whether the brain be much affected. In many diseases, by the state of the sleep, the practitioner will often be able to ascertain whether the nervous system be much disturbed, or the principal seat of the disease.

In affections of the head, the dreams and sensations of the patient during sleep will, in some degree, assist the practitioner in forming his judgment whether it arises from a distension of blood-vessels, threatening apoplexy. In cases of disturbed sleep, it will be necessary to attend to the appearance of the eyes. If the pupils be much contracted, the blood-vessels distended, and the patient cannot bear to look at a luminous body, an inflammatory attack of the brain may be suspected.

Q. *Does he breathe with difficulty?*

In inflammatory fevers, difficulty of breathing indicates great plethora, or a great determination of blood to the lungs; in either case the loss of blood and evacuating remedies are necessary. In dropsy of the belly or extremities, the state of the breath will determine whether there be an effusion of serum on the chest. When shortness of breath comes on rather suddenly, attended with rigours, and the *acute* pains in the chest, termed stitches, it denotes inflammation of the lungs, or pleurisy.

Q. *Is there any expectoration, and is it difficult? What appearance, and taste?*

In all coughs, it is necessary to enquire whether the patient expectorates, and what appearance is exhibited. Cough generally terminates in an expectoration of a clear mucus, which has frequently a saltish taste. In *chronic* cough, the violence of the cough will, in a great measure, depend on the tenacity of the phlegm. In such cough it is of great consequence to produce a secretion of mucus, that will require little exertion to bring up. In inflammation of the lungs, it is necessary to attend to the appearance of the mucus expectorated; if it be clear, and comes up freely, it is a very favourable omen; if tinged with blood, it often indicates the propriety of bleeding. If great difficulty of breathing and cough be not attended

with expectoration, the patient may be considered in great danger.

In cases of cough attended with emaciation of the body, by the *appearance* and the *quantity* of the mucus expectorated, the practitioner is enabled to ascertain whether the lungs are ulcerated. If the matter is opaque, of a yellowish appearance, offensive to the taste, sometimes tinged with blood, and the patient be affected with hectic fever, or much emaciation, his case may be pronounced pulmonary consumption.

Q. *To what diet has he been accustomed?*

A knowledge of the mode of diet of the patient is necessary, not only to enable the practitioner to form an opinion of the nature of the disease, and its probable termination, but also to prescribe medicines, and to give instructions as to his regimen. Much, however, must depend on the *violence* of the symptoms in acute or febrile diseases, or weakness in chronic disorders.

Q. *What remedies has he taken? and with what effect?*

By being acquainted with what has been done for the patient, and the effects thereby produced, the practitioner has the great advantage of knowing what is left undone, and of forming an opinion of the situation of the patient.

Q. *Has he ever been afflicted in the same manner, and how often?*

When a patient is found in an insensible state, this question, put to his friends, will in some degree enable the practitioner to determine whether the disease be apoplexy, catalepsy, the stupor following epilepsy, a fit of intoxication, or swooning. If the patient has been similarly affected, he has the advantage of enquiring what was then done for him.

Q. *Has his countenance altered since his indisposition?*

The countenance of the patient should, in all diseases, be particularly noticed; for in prognosticating the issue of a disease, medical men are often more governed by the countenance of the patient than any one single or even combination of unfavourable symptoms. The following description Hippocrates gives of the looks of a dying man, which, on account of having been first noticed by him, is termed the Hippocratic face:—"When a patient (says he) has his nose sharp, his eyes sunk, his temples hollow, his ears cold and contracted, the skin of his forehead tense and dry, and the colour of his face tending to a pale green, or lead colour, one may give out for certain that death is very near at hand, unless the strength of the patient has been suddenly exhausted by long watching, or by looseness, or being a long time without eating." This observation has been confirmed by those of succeeding physicians.

To female patients, other questions are necessary, with the nature of which every female is well acquainted, and which no sensible female will hesitate to answer fully.

If she has an infant, it will be necessary to enquire whether she suckles it herself, and how often; for many diseases arise in weakly women from suckling their infants too frequently; besides, the practitioner, in consequence of being unacquainted with this circumstance, may administer medicines which might prove injurious to the infant. In some cases it may be necessary to wean the child, either for the benefit of the mother or child, or both.

In the diseases of children, the following questions will be necessary:—

1. *The age of the child?*
2. *Is it cutting a tooth, and how many teeth has it?*
- In cases of purging or fever, this will determine whether it arises from teething. (See Dentition.)
3. *Is it rickety?*
4. *Does its stature correspond with its age?*
5. *Has it had the cow-pox?*

In eruptions of the skin, it will be necessary to make this inquiry, as cutaneous affections resembling the itch are supposed to follow this disease.

6. *Has it had the hooping-cough, small-pox, measles, scarlet fever; and do any of those diseases prevail in the neighbourhood?*

When a child is affected with fever, it will be very necessary to make those enquiries, as it may probably be indisposition preceding some eruptive fever.

Q. *Has it a large belly, with emaciated limbs, and large joints?*

These are symptoms of great weakness, approaching to rickets, and often arise from worms. (See Worms.)

We must bear in mind, that most acute diseases have two stages, viz. super-irritative and sub-irritative, or when the disease exists in full power, and when it is on the decline. In the first state, medicine will often have no effect, and all that a physician can do is to watch nature, and guard against the mischief which

so often follows the officious interference of nurses. In the latter stage, tonic medicines, as the Peruvian bark and wine, generally prove very beneficial in hastening the recovery of the patient; and hence a medicine often obtains reputation in the cure of a disease, which, had it been given in the first stage, would have been injurious. We should be very careful not to begin this restorative plan too soon, for a recurrence of the inflammatory stage is too often produced by an over-anxiety to recover the patient.

There are many deviations from health to which we can give no specific name. Those of a chronic or sub-irritative nature may generally be traced to some affection of the stomach or bowels. In such cases we should endeavour to strengthen the stomach by tonic or bitter remedies, with such combinations as attendant symptoms may indicate. Thus, for instance, if the patient complain of heartburn or acidity in the stomach, with *slight purging*, tonic medicines, as rhatany, columbo, &c. should be taken in lime-water; but if the bowels are confined, the addition of magnesia will be more proper.

On the means of ascertaining the nature of different diseases, I have been explicit in the introduction to the first part of this work. One circumstance we must bear in mind is, that many diseases, particularly those in which the nervous system is principally affected, will recur, unless the disposition of the system to the disease be effectually destroyed by a perseverance in the medicine. Hence, in consequence of a patient's discontinuing the medicine when he finds himself well, in a few days he will experience a relapse; and be-

cause the medicine only produced a temporary relief, it is very common for the patient to object to a further trial of it. Now had he continued it for a little time longer, the disposition to the disease would have been entirely overcome. Of this class of diseases are intermittent fevers, nervous head-achs, Saint Vitus's dance, insanity, epilepsy, &c.

Before we prescribe purgatives, we should enquire if the patient be subject to piles, or easily affected by such medicines. If the bowels are irritable, we should administer the mildest aperient; and if he be subject to piles, we should not employ aloes, unless it be advisable to re-produce them, for many complaints follow the suppression of them. Before we determine on the exhibition of an emetic, we should learn its general effects on the patient; for some people suffer so considerably during its operation, that in many diseases it may be productive of mischief.

A knowledge of the occupation, or mode of living, both with respect to exercise and diet, of a patient, is also necessary, in order that we may point out the means of preventing a recurrence of the disease, when it is evidently the consequence of either of them.

As many diseases are produced by the mind, and as all are more or less influenced by it, we must also attend to the state of mind, as well as the body. In order to impress the importance of this more on the mind of my readers, I have in this edition introduced a chapter on the Passions. It is a fact, no less curious than certain, that we often meet with people who ridicule the idea of being ill, and are resolved not to submit to disease. A striking instance of this kind

lately occurred within my knowledge. The servant of a gentleman, confined to his chamber by ague, was attacked with the same disease at the time he began his dinner. Determined, as he expressed himself, that "it should not conquer him," he immediately joined the other servants in getting in the harvest. By exertion he soon brought on copious perspiration, and the symptoms entirely left him. Two days afterwards, about the same hour, he was seized with violent shiverings and sickness; he immediately left the table, and went to his work as before. After this he did not experience a return of the fit, although he did not take any medicine.—Three of the servants were at the same time laid up with ague. An instance of an opposite state of mind, I have noticed under the head of Contagion, page 107. No medical man of any experience will doubt, that diseases are rendered more obstinate by suffering the mind to give way to them. If courage will secure a person against the contagion of infectious fevers, it is clear that mental exertion must be of great service under disease. Captain Bever, in giving an account of a fever that prevailed in the West Indies, observes, "and what is very remarkable, not one recovered that on the first attack gave himself up."

DISEASES,

ALPHABETICALLY ARRANGED.

OF AGUE.

THIS fever is the most acute and violent that occurs in the human subject. The paroxysms or fits being followed by a clear intermission, it is termed *Intermittent* fever, but *Recurrent* fever is a more proper name. When it returns every day, it is called a *Quotidian*; when every other day, *Tertian*; and *Quartan* ague, when the fit occurs on the first and fourth days, the two intervening ones being free. It is likewise termed *Autumnal* ague, when it happens in autumn, and *Spring*, when in the spring. Other varieties are enumerated by authors; but as they resemble each other, both in the train of symptoms and indications of cure, and arise from the same cause, it will be unnecessary to particularise them here.

This recurrent fever is divided into three stages, viz. the *Cold*, *Hot*, and *Sweating*. The *cold fit* begins with remarkable shivering of the whole body, which, in an hour or two, is gradually succeeded by a degree of heat, with pain in the head, thirst, bitterness in the mouth, a quick pulse, which constitute the *hot fit*;

as the heat abates, a moisture is perceptible on the skin, which increases to a profuse perspiration, termed the *sweating fit*. The whole paroxysm generally occupies eight, and rarely less than six, hours. Thus, the fever, by its violence, soon wears itself out, the cold fit being succeeded by great increase of heat or super-ignition, which, in the course of a few hours, terminates in copious perspiration. The recurrence of the fever depends on the state of the constitution, and particularly of the stomach, liver, and other viscera.

CAUSES.—In consequence of the prevalence of this fever in marshy countries, it is generally attributed to the effect of marsh effluvia; but as the animal body derives a vital principle from the earth (electric matter), it is probably produced by the effect of moisture on this active agent.

TREATMENT.—The treatment of this disease must be regulated by the state of the constitution. Violent as the symptoms are, we find that it is succeeded by debility, and indeed, in almost every instance, preceded by it. Our object therefore, in the absence of the fever, is to invigorate the stomach, and thereby increase the strength of the body; and for this purpose the Peruvian bark has been found to succeed so well, that it is generally considered a specific. In all cases it will be advisable to premise an emetic of ipecacuan powder, and afterwards to clear the intestines by a full dose of the compound colocynth pill, No. 46. From inattention to this preparatory treatment, the Peruvian bark often disagrees with the patient, either by producing nausea, oppressing the stomach, or disturbing the bowels. After the pills have performed their

office, the bark powder may be administered, as directed under the head Peruvian bark, No. 48, page 58. The rhatany root has the important advantages over the Peruvian bark, of not oppressing the stomach, of being less liable to disagree with the bowels, and much more pleasant to the palate. It may be administered from fifteen grains to twenty-five, in the same manner as directed for Peruvian bark. (See Rhatany Root, page 98.) If purging should occur during the use of these remedies, five or six drops of liquid laudanum may be added to the dose three times a day; and in case of costiveness, five grains of rhubarb powder may be substituted for the laudanum. The diet should be generous, and the patient allowed a glass or two of Port wine every day after dinner. These directions are applicable to every variety of the disease.

In the treatment of this disease we must bear in mind, that it is always more or less attended with obstruction of the viscera; indeed we cannot perhaps make a more clear view of it, than to consider it symptomatic of this state of the viscera. This visceral affection is sometimes so considerable, as to render the exhibition of the bark highly improper. When, therefore, a yellow and bloated countenance, with a sense of fullness in the chest or belly, or pain in the region of the liver, indicates the viscera to be much affected, it will be advisable to prepare the patient for the use of the Peruvian bark or rhatany root, by a gentle dose of jalap and calomel (see Calomel, page 46), which should be repeated two or three times a week, according to its effects on the bowels, and the strength of the patient. He should also take a grain of calomel

every night at bed-time for about a week, during the use of the bark or rhatany root.

Arsenic is a more certain remedy for ague than either the rhatany root or Peruvian bark. It is, however, too powerful a medicine to employ in domestic practice, and should only be administered in those cases which resist the rhatany root, Peruvian bark, and mercury, as above directed, or when the patient cannot be prevailed on to give these remedies a fair trial. In very obstinate cases of ague, the use of the solution of arsenic only for one day will produce such an alteration, that it will afterwards yield to the Peruvian bark in a few days. Ague sometimes induces such a degree of debility in the system, particularly in children, as is often attended in them with such a morbid irritability of stomach and bowels, as to render the exhibition of the bark or rhatany powder impracticable. In such cases the arsenic is a most valuable remedy. Some time since I was requested to see a child in Kent, in consequence of her medical attendants having pronounced her situation hopeless. She was only three years of age, had been affected with a quotidian ague six weeks, and had for the last week refused to take any sustenance but water. The Peruvian bark was the only remedy that had been tried, but it did not appear that it had been given in sufficient quantity. The belly was much enlarged, and the powers of the system so much reduced, that I had little hope of her recovery. I directed half a drachm of the white mercurial ointment (made as directed under the head of calomel, page 46) to be rubbed over the bowels twice a day, and six drops of

Fowler's solution of arsenic to be given in a little water three times a day. In the course of two days, she was manifestly better. On the third day she took some food, and experienced no recurrence of the fever. The patient having a most invincible dislike both to the Peruvian bark and rhatany root powder, the solution of arsenic was repeated for three days longer, when it was discontinued, and a clyster composed of rhatany powder and broth administered for a few days afterwards, for the purpose of strengthening the system, and preventing a relapse. The best form for administering arsenic is the preparation kept in the shops under the name of *Fowler's Arsenical Solution*. The small quantity of one-eighth of a grain of arsenic being sufficient to poison an adult, it is clear, it should never be given in substance, nor should it be continued longer than three days, if it be possible to avoid it, as organic disease of the stomach has been known to follow its use. In the first part of this work I have given very explicit directions for the use of the Peruvian bark and rhatany root, in ague. (See Peruvian bark, page 58.) It may not be amiss to repeat in this place, that it is absolutely necessary to persist in the use of the Peruvian bark or rhatany root powder for a few days after the ague has left the patient, and to discontinue it gradually, in order effectually to overcome the disposition of the system to a recurrence, for when the fever recurs after the interval of a week it is more difficult to cure.

If the sentient powers of the brain be disturbed, occasioning general irritation of the nerves, a quick pulse, disturbed sleep, delirium, and during the intervals of

the fit an irritative fever*, a blister to the nape of the neck, and the application of cold water to the head every morning, will also be proper. Numerous instances of the influence of the passions on this disease have been published. In many parts of this country remedies of no medical efficacy whatever, but of that odious and disgusting nature which is calculated to make a strong impression upon the senses—as live spiders, swallowed in that state, snuffs of a candle, a dried toad worn in the bosom—are still employed with success; as well as charms, with ceremonious pomp and affectation of mystery.

The young practitioner should be careful that he does not confound the disease with the rigours or shivering which precede inflammatory fever, local inflammations, and suppurations. Pulmonary consumption is also generally attended with a fever of the intermittent type, in which Peruvian bark or rhatany root would prove injurious. The hasty exhibition of these remedies in cases of rigours, preceding pleurisy or inflammation of the lungs, has been productive of very serious mischief. If there be any doubt with respect to the nature of the fever, it will be prudent to postpone the use of a tonic medicine till its character be satisfactorily marked.

OF APOPLEXY.

An apoplectic fit consists in a sudden deprivation of all the senses and of voluntary motion, generally in

* When the paroxysm is succeeded by this fever, it is termed *remittent fever*. It being sub-irritative fever, the use of tonic remedies is necessary.

consequence of compression of the brain; which, when produced by an effusion of blood, or a distension of the internal vessels of the head, from an accumulation of *blood*, is termed *Sanguineous Apoplexy*; and when occasioned by an effusion of *serum*, which occurs chiefly in dropsical habits, *Serous Apoplexy*.

Of the Sanguineous Apoplexy.

This disease seldom occurs before the forty-fifth year of a person's age. The short-necked, the indolent, and such as are apt to indulge in full meals of animal food, and the free use of spirituous and vinous liquors, are generally its victims. Its frequent occurrence in this country is no doubt the consequence of the great consumption of animal food and spirituous liquors, with a sedentary life.

SYMPTOMS.—With the loss of the senses and *voluntary* motion, there is an *appearance* of *profound* and *continual* sleep, with snorting; *oppression* of the breath; the pulse of the *wrist* is languid, while the arteries of the *head* and *neck* beat with increased force; the face is red and bloated; the neck swelled, with a distension of the vessels, and *dilatation* of the pupils of the eyes. Although the *whole* of the body is affected with loss of sense and motion, one side generally exhibits a greater deficiency of vitality than the other.

An apoplectic fit is often preceded by a sense of weight in the head, and giddiness; frequent headaches; bleeding at the nose; redness of the eyes; imperfect vision; a noise in the ears, like the ringing of bells at a distance, or the boiling of a tea-kettle; a transitory degree of numbness in the extremities;

weakness of the knees; faltering of the voice; impaired memory; drowsiness, particularly after dinner; and disturbed sleep. These affections occurring in a person of a plethoric habit and short neck, may be considered *premonitory* symptoms.

CAUSES.—The chief cause of this species of apoplexy is a plethoric habit of body, with a determination of blood to the brain. It may be brought on by whatever hurries the circulation, so as to increase the *afflux* of blood into the vessels of the head*; such as *violent* exercise; passions of the mind†; intoxication‡; much straining§. It may likewise be occasioned by

* The violence of the circulation into the vessels of the brain is considerably checked by the *tortuous* course of the arteries that supply it with blood, and the resistance afforded by the long bony canal through which the internal carotid artery passes: the impetus of the blood to the brain must of course be influenced by the *angle* these vessels make, which has been found to vary in different subjects. The direction of the canal admitting of too free an afflux of blood, I believe to be a frequent cause of apoplexy and other affections of the brain.

† Anger and fear, although opposite passions, are enumerated by Van Swieten, as *frequent* causes of apoplexy.

‡ When sudden death takes place during drunkenness, it must be by producing apoplexy. Among persons in the habit of drinking, fatal apoplexy is very frequent. “This disease,” observes Dr. Trotter, “being so frequent an attendant or a consequence of excessive drinking, holds up a most awful warning to the inebriate.” The idea of a human being rushing into eternity from a board of gluttony, riot, and intemperance, one would suppose sufficient to appal the most depraved and obdurate of mortals.

§ I have known apoplexy produced by the exertion of pulling on a tight boot; and a short time since, a gentleman was found in an apoplectic fit in his vault in my neighbourhood, brought on, no doubt, by the straining occasioned by a costive motion. In those instances, however, there must have been a great predisposition to the disease.

whatever impedes the *free return* of blood from the head: as a tight ligature or handkerchief round the neck; stooping down or lying with the head lower than the chest; looking behind, or upwards, for some time.

It is a fact very difficult to account for, that when the patient is not cut off at once, but lives for some time after the attack, the palsy of one side of the body, which generally follows an apoplectic fit, generally happens on the *opposite* side to *that* of the brain in which the effusion of blood has taken place; i. e. if the *right* side of the brain be compressed, it will paralyze the *left* side of the body, and *vice versa*; hence it often happens, that if a person lose the use of his *right* side by compression of the *left* portion of the brain, the *right* eye will not be affected, while that on the *opposite* side will be nearly blind*.

It is very common, on examining the brain of persons far advanced in life, to find the arteries in a very diseased state. There is often a bony or earthy matter deposited in the coats of the great, and some-

* Some time since, I was requested to examine the head of a gentleman who had suddenly died of apoplexy. In the right portion of the brain, there was a considerable extravasation of blood, and on the left side I discovered a tumour of a hard consistence, which proved to be the remains of an effusion which had produced an apoplectic fit about twelve months before;—a circumstance that proves that a rupture of a vessel in the brain is not necessarily fatal, and that the effused blood is not always entirely absorbed: he was, however, afterwards very subject to head-ach, giddiness, and drowsiness.

times lesser, arteries of the brain *, by which they lose a part of their *contractile* and *distensile* powers. The vessels of the brain, under such circumstances, are much more liable to be ruptured than in a healthy state. Whenever blood is accumulated in *unusual quantity*, or the circulation carried on with *unusual vigour*, diseased vessels are very liable to this accident; and accordingly, in either of these states, rupture of their coats most frequently happens.

TREATMENT.—The *first*, and indeed the *principal*, object to accomplish towards the recovery of a person in an apoplectic fit, is to unload the vessels of the head, by cupping or scarifying the scalp or nape of the neck, and the part between the shoulders. If this cannot be readily done, the extraction of blood from the jugular vein or the arm should not be delayed †. Blisters should

* This diseased state of the blood-vessels of the head is, no doubt, often the cause of obstinate head-ach, lethargy, epileptic fits, and other nervous diseases in *elderly* people.

† The extraction of blood by cupping is preferable to any other means; when this cannot be effected, which is often the case in the country, a vein of the arm should be preferred to the jugular vein, as the *return* of blood from the head, by the ligature applied round the neck to elevate or distend the vessel, although but temporary, may increase the effusion of blood in the head, in case a blood-vessel has given way; or if distension only exist, it may produce a rupture, particularly if the vein be not soon opened. Some practitioners recommend blood to be taken from the temporal artery. The distension being of the veins, and not of the arteries, there would be little or no advantage derived from unloading the arterial system. If the veins become overloaded, in consequence of weakness of the arteries, the extraction of arterial blood would prove very hurtful. In young subjects, arterial plethora prevails, and in them the extraction of blood from this system is most bene-

likewise be applied to the head, and between the shoulders. The next object is to *lessen the determination* of blood *to the head*, by increasing the circulation in the extremities, which is most effectually done by stimulating the feet and hands with the Mustard Poultice, No. 111, and by emptying the intestines, by administering twenty grains of the Compound Colocynth Pill, No. 46, dissolved in a little mint-water, and by the Laxative Clyster, No. 97, with the addition of half a drachm of aloes and two tablespoonfuls of common salt. The body should be kept nearly in an erect posture, and the head supported in that situation, as favouring the return of blood from, and at the same time checking its afflux to, the head: a napkin, moistened with cold vinegar, may also be applied to the head. The *sooner* these measures are put in execution, the *greater* will be the probability of success. It has been a question much agitated of late, whether the exhibition of an emetic is proper on the *first* attack of apoplexy: by producing an *equal* circulation throughout the system, it has often relieved *local* congestion; without the *violence* of straining, it has been said, may occasion the rupture of a distended vessel in the head; and if effusion have taken place, it may increase it. As the operation of an emetic increases the action of the absorbent vessels, it may promote the absorption of the effused blood. It is, however, at any rate, too ambiguous a remedy to adopt in domestic medicine.

official; but in cases of apoplexy, elderly people are subject to venous plenitude, and this often to such a degree as to oppress the heart. In such cases, the extraction of blood from a vein seems to take a weight off the springs of life.

If the apoplectic fit be *evidently* produced by *excessive* drinking, the contents of the stomach should be diluted by drenching the patient with warm water. Vomiting, in this case, is always of great service. (See *Treatment of the Drunken Paroxysm*, page 115.)

PREVENTION.—A person disposed to apoplexy, or who has experienced an attack, should be particular in keeping his feet warm, by wearing flannel socks, and the use of the horse-hair soles, which I consider an excellent contrivance to keep the feet both dry and warm; and particularly to guard against fulness of the vessels, by moderate exercise and abstemious diet. He should sleep with the head higher than the trunk, but not bent forward on the chest; the elevation should be *gradual* from the feet to the head. When affected with the *premonitory* symptoms, noticed page 185, a brisk purge of the Compound Colocynth Pill, No. 46, a blister to the nape of the neck or head, and putting the feet in warm water, will often obviate an attack. Snuff, by increasing the secretion of the nostrils, and producing sneezing, will likewise prove serviceable. General blood-letting, having a tendency afterwards to produce plethora, should only be practised when apoplexy is *immediately* threatened; the application of leeches to the temples will often supersede its necessity. A seton or issue in the nape of the neck, and the occasional use of the Compound Colocynth Pill, No. 46, by preventing turgescence of the vessels of the brain, are the most powerful preventives. It would also be advisable to have the head shaved, and to wash it with cold water every morning. The application of cold water will not only check the determina-

on of blood to the head, but by strengthening the vessels of the brain, and allaying morbid irritation of that organ, will prevent turgescence. An over-loaded state of the blood-vessels of the brain often arises from want of power in them sufficiently to propel the blood through the veins : a reclining posture, and much sleep, are, therefore, most powerful predisposing causes. By a strict observance of these rules, a paroxysm of apoplexy may be kept off for a great length of time, however predisposed the person may be to the disease*.

DISTINCTION.—Apoplexy is distinguished from profound sleep, which it much resembles, by applying the smelling salt, or *sal volatile*, to the nostrils, which will immediately rouse a sleeping, but will have no effect on an apoplectic, person ; and from a fit of intoxication, by the *paleness* of the face, the *smell* of the breath, *manner of living* ; from epilepsy, by the stertorous breathing, diminution of the power of volition, and *absence* of convulsions. It is often extremely difficult to discriminate between the insensible state that *follows* an epileptic fit and apoplexy, particularly as an apoplectic paroxysm is sometimes preceded by a violent convulsion, foaming at the mouth, grinding the teeth, and other convulsive motions of the body ; but a knowledge of the *habits* and *constitution* of the

* I have known several aged persons that have experienced attacks of apoplexy, procrastinate the *fatal* relapse for many years by strict attention to these preventive means. An issue at the nape of the neck, by keeping down fulness of the system and the irritability of the brain, is a most important remedy in the prevention of apoplexy.

patient will, in general, enable a practitioner to determine the comatose state after epilepsy from apoplexy. The *state* of the pulse and respiration, and the *paleness* of the face in fainting or swooning, will distinguish it from such complaints.

Of Serous Apoplexy.

Compression of the brain, producing apoplexy, is very seldom occasioned by an effusion of the *serous* part of the blood. When apoplexy occurs in a dropsical person, it may be referred to an effusion of serum, which, for its removal, will require the means suggested for the cure of sanguineous apoplexy, with the *omission* of blood-letting. Cordials, which in the sanguineous apoplexy are not allowed, are in this case very proper. It is the consequence of extreme debility of the system, and generally terminates in death.

REMARKS.—In both the sanguineous and serous apoplexy, the brain is *compressed*; in the former, by over-distension of blood-vessels or effusion of blood; and in the latter, by the effusion of *serum*. Another species of apoplexy, I am well persuaded, often occurs, that is not occasioned by compression but by depletion, or too empty a state of the vessels of the head; hence the brain, losing the mechanical support afforded by a proper distension of the vessels, becomes so collapsed, as to be incapable of performing its functions. This species of apoplexy often follows the excessive loss of blood. It also occurs in extreme old age, and in people whose heart, through disease or ossification of the aorta or carotid arteries, has not the power of forcing the blood in sufficient quantity to the head.

It is of great consequence to determine, whether apoplexy is produced by depletion; for the general opinion, that it is occasioned by compression of the brain, induces young or inexperienced physicians—or, what amounts to the same, physicians who have not profited by their experience, of which there are unfortunately but too many—to have immediate recourse to bleeding, with the view of unloading the vessels of the brain, when at the same time they really require to be filled; hence we often find apoplectic patients suddenly expire after the loss of blood.

OF ASTHMA.

This distressing disease is divided into two species, viz. the *humoral* and *dry*. Dr. Cullen enumerates three species, viz. the *spontaneous*, comprehending the *spasmodic* and *hysterical*, without any manifest cause or primary local affection; the *exanthematous*, when it arises from the retropulsion of certain morbid humours from the surface; and the *plethoric*, when it is connected with a fulness or plethoric state of the system.

Other species are described by this author, but they are mere symptoms of particular diseases, as the *hypochondriac*, *arthritic*, &c.

A Dr. R. Bree, who has expressly written on asthma, under the title of a “Treatise on Disordered Respiration,” has made a different arrangement, in which he has evidently mistaken the effect for the cause of the disease. There can be no difficulty in a physician learning the exciting cause of a malady, the peculiarities and nature of constitution, and other

circumstances; but if, for mere fashion's sake, he is to mark the particular species, he will only bewilder and perplex himself. To instance the absurdity of this, let us suppose him called to a case of *humoral* asthma; if it be attended with a plethoric state of the system, then the disease must be distinguished by the name of *humoral plethoric asthma*. This species again may be put into action by the repulsion of a cutaneous eruption; in which case it must be further denominated an *exanthematous humoral plethoric asthma*. This might also, at the same time, be attended with effusion of serum in the lungs; when it would require the further appellation of *serous exanthematous plethoric humoral asthma*! Terms certainly of fine sound in the ears of the ignorant; but which, when analysed, are, in fact, but a *vox et præterea nihil*, or, a tinkling cymbal and empty brass.

The real difference of asthma arises alone from difference of constitution. The constitution of asthmatics exhibits certain peculiarities, in a high degree similar to hypochondriasis. This is often very remarkable; and hence, what will put the disease into action in one patient, will often prove a means of relieving it in another. This idiosyncrasy is particularly shewn in a morbid susceptibility of the mucous membrane of the windpipe and its branches. Betwixt this membrane, which, in a natural state, is exceedingly irritable, and the small muscular fibres of the air-vessels, as well as the muscles subservient to respiration, great sympathy exists. This sympathy in some subjects runs much higher than in others. When the exciting cause of the disease puts the malady into ac

on, then the expiratory muscles are thrown into a state of contraction, and the due expansion of the lungs is thereby prevented. The circulation through the lungs being thus obstructed, the blood is not properly oxygenated. The lips and cheeks, in consequence, lose their natural redness; the heat of the body is diminished; and the vessels of the head and neck become distended.

In a person who is predisposed to asthma there are two classes of causes, which excite the paroxysm or asthmatic fit.

The first are those which disturb the nervous system in general, as passions of the mind, abuse of spirituous liquors, &c.

The second are those which act locally, as cold or condensed air, or some stimulating quality of the air from chemical combinations.

Where the disease is attended with an expectoration, it is termed, in common language, the *humoral asthma*. But this circumstance depends on the state of the mucous membrane lining the windpipe, and its divisions; the state of the sanguiferous system, and the age of the patient. When the patient is of a delicate or tender structure, when the sanguiferous system is over-loaded, and in elderly people, there is generally more or less of expectoration during the day-time. In such patients, the paroxysm, or fit, does not run high, in consequence of the secretion of mucus keeping down the morbid irritability of the internal membrane of the wind-pipe, &c.

In a subject, again, whose constitution is more

nervous than inflammatory, and the fibres rigid, the membrane secretes little or no mucus; the paroxysm, or fit, is in consequence more violent. But in both these different situations, the state of the atmospheric air makes a considerable diversity on the character of the malady; for in summer the asthma of some patients will be humoral, and in winter the reverse. Hence it is the state of constitution and atmosphere that actually determines the disease; and whether a state of super-irritation or sub-irritation of the system exists, is the point to be determined, in order to regulate our mode of treatment.

Asthma is, in its appearance and symptoms, a disease so well marked, that it is unnecessary to notice its phenomena and mode of attack. The more or less sudden appearance of its fits, their recurrence at stated intervals, and the intervening suspension or alleviation of their violence, sufficiently characterise the malady. Sometimes, however, the difficulty of breathing continues throughout the day, with a slight exacerbation during the night.

On dissection, the morbid appearances in asthma are similar to those of the consumption of elderly people, except that there is, here, a greater extent of ossification of arteries. The death of an asthmatic is sometimes produced by apoplexy, in consequence of the over-distension of the vessels of the brain during the great impediment, or obstruction, to the return of blood from the head, that takes place in the course of the fit.

TREATMENT.—With trading physicians the varieties

remedies for the cure of asthma are as numerous as the species into which they divide the disease; they give their hosts of expectorants, of emenagogues, of hystericagogues, diaphoretics, relaxants, tonics, &c. &c.; but these are a mere list of inefficient names on which no real is to be rung, to entitle them to the ultimate consideration of the case—a fee.

In the treatment of asthma, there are two objects in view:—the first is, to abate the violence of the paroxysm, or to produce a state of system which will not tend to aggravate or keep up the local irritation. The local affection is evidently of two kinds, viz. *super-irritative* and *sub-irritative*. In the former, the body is in a plethoric condition; in the latter, it is in a debilitated or relaxed state.

With respect to the treatment of the *super-irritative* species, as the vitalising powers of the constitution are evidently too high, the first step is to unload the blood-vessels, or to take from the sanguiferous system that morbid plenitude it possesses, which is best effected by an extraction of blood from the arm; for the operation of cupping on the chest, by increasing or extending irritation of its external muscles, is often hurtful. A active purge will, also, be of service; and, with these means, the warm, or the vapour bath, on Mr. Cochrane's principle, may be employed. When the vitality of the system is thus reduced, if the irritation be not sufficiently subdued or diminished, we must then have recourse to local remedies. For this purpose, the inhalation of the fume of the herb stramonium has been very much employed. In many instances I have known it of the greatest utility; but if used when

the system is in a state of super-irritation, it will tend to aggravate the sufferings of the patient*.

It has been also insinuated, that the stramonium may disturb the general health of the patient: but it is not so powerful as tobacco; and those who make the objection, must be ignorant of its real properties, and of the effects of anodyne vapours on animal life. Its virtues have, no doubt, like every popular medicine, been over-rated on one hand, and depreciated on the other. The opposition of quacks is unworthy of notice. Truth generally lies between the extremes; and the opinions of the sordid and illiberal are equally unworthy of notice.

During the asthmatic paroxysm the inhalation of the anodyne fume is most efficacious, if the degree of irritation will admit of its being employed.—When judiciously administered, it is an excellent remedy, and perfectly innocent. It wonderfully allays morbid irritability; and the caloric which is taken with it, during the operation of smoking, powerfully promotes the secretion of mucus, and thus often speedily terminates the fit. When the mucus is of a saltish taste, I have found the smoking of the stramonium of no service. The herb, when used, should not be perfectly dry; for in this case the smoke will not

* That the stramonium is more efficacious in allaying irritation of the membranes lining the wind passage than any other anodyne vegetable, I have no doubt. I have long employed the inhalation of the vapours of a decoction of the poppy-head and hemlock; the latter of which I recommended to Mr. Fisher, who added to these articles the stramonium, and some aromatic herbs, and afterwards published a treatise on their efficacy.

be sufficiently humid to convey a proper proportion of the anodyne quality, and, of course, from the absence of it, the caloric alone will increase the irritation. When employed with a view of preventing or palating the paroxysm, the patient should begin to smoke it about an hour before the usual time of accession; and in all cases this is the most preferable, though very few can employ it when the fit runs high. If the mode of using the herb by smoking be unpleasant, which is generally the case to females, the vapours of a strong decoction of it (made by boiling an ounce in a pint of water) may be inhaled, by breathing over it, as soon as it is taken off the fire*.

During the intervals of the paroxysm, the patient should take, every two or three hours, a medicine calculated to quiet the nerves and to promote expectoration. For these purposes the following I have found to answer best:—

Take of camphorated mixture, six ounces; oxymel of stramonium, one ounce †.—Mix.

If the mucus expectorated be of a saltish taste, two drachms of Canada balsam, with an ounce of mucilage of gum arabic, may be added, with advantage, to the above mixture. Tar-water is also very beneficial in such cases; for, by correcting the saline state of the

* The decoction should be made in a close vessel, and taken off the fire as soon as it begins to boil; for, by long boiling, the anodyne property is much injured, particularly the volatile parts, which only are serviceable in such cases.

† As there is no formula published for making this oxymel, the author has only employed Mr. Fisher's oxymel.

blood, it renders the secretion of mucus mild. As a means of precaution, it may be also observed, that the warm or vapour bath, employed two or three hours before the usual period of accession, will often prevent the recurrence of a fit.—Whatever, indeed, tends to quiet the nervous system, is of the greatest service; but such is the peculiarity of the nerves in asthmatic subjects, that active remedies should be employed with great caution. In many instances washing the head with warm water (on the principle of producing a conducting surface) has been of wonderful service; and, in other cases, sneezing, produced by the compound powder of asarabacca, has suddenly terminated the paroxysm.

When asthma, on its first attack, is attended with fulness of the system, preparations of steel, and the stimulant gums, as asafoetida in particular, are manifestly hurtful; and when the latter affords relief, it has only been by expelling wind from the stomach, and thus removing mechanical distension.

Indeed, all asthmatics, whether the system be in an increased or diminished ignition, are very subject to an accumulation of hydrogen gas in the intestines, which renders it essentially necessary to keep the bowels open, for costiveness favours its disengagement. For this purpose I have found the following pills the best prescription:—

Take of compound colocynth pill, one drachm; prepared calomel, ten grains.—Mix; and divide into fifteen pills, of which three may be taken occasionally.

Treatment of Sub-irritative Asthma.—In this species of disease, the object is, to raise the system to a standard of health; in doing which the local irritation generally subsides. During the paroxysm, smoking or inhaling the vapour of the compound stramonium, recommended by Mr. Fisher, is generally serviceable, in the manner already directed.

To hasten the termination of the paroxysm, rubbing the scalp with camphorated sal volatile, and immersing the feet in warm water, are no less useful. If the smell of the camphorated liniment be disagreeable, warm water may be applied to the head, which should afterwards be covered with flannel. The compound saffron, as a stimulant snuff, by rousing the energy of the brain, will prove a powerful auxiliary in terminating the paroxysm.

In the use of the constitutional remedies, their tonic qualities should be proportioned to the state of general weakness. Previous to beginning their use, it will be proper to clear the intestinal canal, by a purgative dose of calomel and rhubarb.

When swelling of the legs takes place, with a sense of general lassitude, though at the same time the vital powers are not much reduced, and a general relaxation prevails, the following mixture will be proper:—

Take of prepared ammonia, one scruple; tincture of squill, three drachms; infusion of cascarilla, six ounces.—Mix. Two table-spoonfuls to be taken three times a day.

If, joined with this diminished vitality of system, there be a dry skin, or a determination of blood to the

lungs, the following pills may be taken an hour before the attack of the paroxysm:—

Take of ipecacuan powder, two grains; extract of hemlock, four grains.
—Mix; and divide into two pills.

An emetic administered in the evening will sometimes, by promoting expectoration, and a determination to the skin, prevent the accession of a paroxysm; and, for this purpose, I have found the following prescription to answer best:—

Take of ipecacuan powder, fifteen grains; sulphate of zinc, four grains; oxymel of squill, two drachms; peppermint-water, one ounce.—Mix.

A blistering or burgundy-pitch plaster applied to the chest, I have never found beneficial in sub-irritative asthma; but, in a great number of cases, both have been of manifest injury; the latter increasing the difficulty of breathing, and the former rendering the nervous system more irritable.

Cold-bathing sometimes succeeds in this species of asthma; but it is only in its early stage; for when the legs swell, and the patient is much reduced, it is evidently hurtful. Sea-bathing is of as little avail; and, in many instances, it has brought on the most distressing and long-continued paroxysms. On the contrary, the hot-bath, to one hundred degrees, is generally serviceable.

When, in the ultimate progress of the disease, the system appears much debilitated, so that swelling of the legs, great oppression of breathing, and bloated

countenance, are predominant symptoms, a more powerful tonic will be required, which may be combined with a diuretic medicine, as the following:—

Take of infusion of rhatany root, six ounces; prepared ammonia, two scruples; compound spirit of juniper, two ounces; tincture of the squill, half an ounce.—Mix. Three tablespoonfuls to be taken every four hours, with the following pills:

Take of precipitated iron, two grains; extract of hemlock, three grains; gum ammoniac, four grains; oil of aniseed, two drops.—Mix; and divide into two pills.

The bowels should also be kept open by the following pills:

Take of compound colocynth, one drachm; prepared calomel, ten grains; Venice turpentine, one scruple.—Mix; and divide into fifteen pills, of which three may be taken occasionally.

But if, on the contrary, the patient should be affected with diarrhœa, a frequent attendant on the last stage of this malady, then the following may be substituted for the preceding tonic mixture:—

Take of compound tincture of rhatany, one ounce; lime-water, six ounces; laudanum, thirty drops.—Mix. Three tablespoonfuls to be taken every three hours, with the steel pills above described

If this mixture should not sufficiently restrain the affection of the bowels, six ounces of the white decoction, or chalk mixture, may be substituted for the lime-water.

In the last stage of *sub-irritative asthma*, when the pulse is oppressed, and the veins over-distended, the extraction of a few ounces of blood will afford great relief. In elderly persons the venous system is often

over-loaded, while the arterial vessels maintain an opposite state. In such cases, the loss of blood from a vein is often highly useful. It seems to give fresh vigour and energy to the body; and the effused serum, in consequence of this renovated state, is often absorbed, and the secretion of urine increased. The different secreting organs are also, as it were, set at work. Hence, spontaneous hæmorrhage has proved highly beneficial. This practice is, however, in cases of extreme debility, a bold one, and should never be carried beyond five or six ounces.

When the legs are much swelled, a small blister, a little larger than a crown-piece, may be applied to the inside of each. The discharge of serum, when continued, is very considerable, and never fails to afford most essential relief. Some object to blisters, as being apt to produce mortification; but I have never known them to have such an effect. When the breath is oppressed by an effusion of serum into the chest, I have known blisters to afford the most marked benefit.

If, notwithstanding the employment of the above remedies, a paucity of urine exist, one grain of calomel may be taken twice a day; and if the irritable state of the stomach or bowels forbid its use, then friction on the surface may be substituted for an internal administration, as directed under the head of Calomel. In this stage of the malady, it is of the greatest consequence to keep up the action of the kidneys.

In every stage of the *sub-irritative asthma*, the diet should consist chiefly of animal food; the only vege-

able matter that seems to agree here, is bread. The flesh of young animals is the easiest of digestion; in the dressing of which the patient may be directed by his own taste.

A vegetable diet would appear to be indicated in this species of asthma, as tending more to quiet the system than any other; but there is no asthmatic who will be benefited by such a restriction; the quantity required to be taken, in order to convey sufficient nourishment, occasioning the stomach to be over-distended. A feeling of oppression, in consequence, ensues from the quantity alone, independent of the gas disengaged during the process of digestion, which accumulates in the intestinal canal, and increases the evil. Green vegetables are, above all, particularly hurtful; and of all vegetable productions, the mealy potatoe generally agrees best. If the state of constitution particularly require a vegetable regimen, it will be advisable to adopt the most nutritious and less bulky form, as the jellies of arrow root, sago, tapioca, &c. Some time ago great objections were made to bread, on account, as it was supposed, of its being in a state of fermentation. By the process of fermentation it undergoes, the particles of flour are more minutely divided, and completely checked by baking, so that bread may be considered as similar to vegetable jellies in a hardened state. But, on the subject of diet, it may be observed that, though rules are laid down, much must be conceded to the taste of the patient. With some I have found veal, however tender, and easily digestible, to disagree with the bowels of the patient, and to act even in a violent degree.

In respect to beverage, water is of all others the best; and should an aromatic be necessary, a little Jamaica ginger, finely ground, is preferable to any other, which may be taken in it. This will be sufficient to correct flatulence; and the system will not be disturbed by the pure element, as by wine or brandy. Wine, and spirituous liquors, often afford a temporary relief; but when the exhilarating effects of the cordials are past, they leave a proportionate depression, and an increased nervous state. In the far-advanced stage a cordial beverage is sometimes necessary, in which case gin, diluted with water, may be allowed.

For breakfast, and the evening repast, the cocoa of the sassafras-tree (an article lately imported) is the best. This production is not only lighter than common cocoa, but, being slightly impregnated with the aromatic quality of sassafras, it sits on the stomach remarkably pleasant, and is a powerful preventive of flatulence.—It is prepared for use in the usual manner of common cocoa. An account of this article is given page 100.

The subject of air is an important one to asthmatic patients; and the feelings of particular persons require an opposite regulation in this respect. To some, the application of cold fresh air, during the paroxysm, is absolutely necessary; while the feelings of others are best relieved by a situation near the fire-side: but, in all asthmatic cases, it is necessary that the patient should be protected from an easterly wind. In general, too light air disagrees with patients under this disease: hence elevated situations are found hurtful. But such

the variable nature of the malady, that some cannot breathe in a light air, while others feel equal inconvenienced in a condensed atmosphere. An uniform pure air is required by some, while the air of a lime-kiln is more grateful to others. The sea air is, generally, here prejudicial, even independent of its temperature.

In this disease, walking and sailing have been much commended as exercise; riding on horseback is, perhaps, most salutary, as the viscera are more exercised, and the nervous system rendered more quiet by it, in consequence of the mind being pleasantly engaged.

In regard to clothing, flannel next the skin is indispensable during winter: but in summer it tends to relax the body, and render the nervous system more irritable; it should therefore, in this season, be changed for cotton.

In asthmatic cases, the state of the mind is one great and leading consideration. Mental perturbation I have already observed is, in itself, often an exciting cause of the disease, and never fails to aggravate, or prolong, the paroxysm; the patient, therefore, should be indulged in his particular fancy, or prepossession. The mind is very extremely irritable, and the least opposition, or restraint, often produces great and depressing effects.

PREVENTION.—Flannel worn next the skin, the occasional use of an emetic of ipecacuan powder, the oxymel of squill, and an issue between the shoulders, or in the arm*, will often succeed in preventing, and never fail to abate, the violence of the paroxysm of

* If the subject be advanced in years, or affected with swelling of the legs, an issue or seton, by extracting the glaucous part of the blood, may be productive of mischief.

asthma, or to relieve the breathing during its absence in young or plethoric subjects. The diet should consist of broth, light puddings, fowl, veal, and other articles of tender fibres; and a little ginger used in the beverage, to obviate the flatulent effects of vegetables. Good old perry or cyder is perhaps the best beverage.

Asthmatic people, in consequence of peculiarity of the nervous system, being differently affected by the atmosphere, they must consult their own feelings as to the place in which they should reside. A spacious room should *always* be preferred. When the breathing is very difficult, the nitrous gas gradually diffused in the air of the room, as already recommended for purifying the chambers of the sick, generally affords great relief, and will often prevent a paroxysm. Flowers and herbs, which purify the air in the *day-time*, should not be left in the bed-chamber during *night*, for reasons already assigned, page 105 (note). He should, likewise, choose a residence adapted to the different seasons of the year. For the winter season, Sydmouth, or Exmouth, Devonshire, is probably the best retreat in this island for asthmatic subjects.

DISTINCTION.—Asthma may be distinguished from inflammation of the lungs and pleurisy, by being *chronic*, unattended with *acute* pain or *stitches* in the chest, and free from fever. The returning of the paroxysms at *intervals*, the sense of constriction above the chest, occasioning the patient to get into an erect posture, and

* "The asthmatic patient," says Aretæus, "loves walking in the open air with his mouth open, and is dissatisfied with the largest house, which seems too small to breathe in."

fly for relief to the cold air, will distinguish asthma from other diseases of the lungs.

OF BARRENNESS.

There are several causes of barrenness which, from their delicate nature, cannot be noticed in a work of this kind. Disease of the ova, injury sustained by frequent miscarriages, general debility of the system, irregularity in the menstrual secretion, and morbid irritability of the womb, are very frequent causes of sterility.

Whatever be the impediment, all that art can do is to improve the state of the general health, and to remove local obstruction or morbid irritability. For these purposes the patient may take one of the following alterative pills every night for a fortnight:—

Take of prepared calomel, seven grains; mithridate, half a drachm. To be well mixed and divided into seven pills.

Three tablespoonfuls of the following mixture may also be taken two or three times a day, and continued for some time after the use of the alterative pills:—

Take of the foreign extract of rhatany root, two drachms; vitriolated magnesia, three drachms; aromatic tincture of rhatany, one ounce; pure water, twelve ounces. Mix.

If acidity prevail in the stomach, two drachms of prepared soda may be substituted for the vitriolated magnesia; or if the medicine disturb the bowels, the vitriolated magnesia should be omitted. After the alterative pills have been discontinued a week, cold bathing will prove beneficial. In case the patient be

affected with fluor albus, the same topical management will be necessary as directed for that disease.

If the patient be of a cold phlegmatic constitution, instead of the mixture prescribed above, the following will prove more beneficial in giving strength and vigour to the system:—

Take of muriated tincture of iron, one drachm; decoction of rhatany root, six ounces; compound tincture of ditto, one ounce.—Mix. Three tablespoonfuls to be taken three times a day. The alterative pills should also be taken as directed above.

The same rules as are given in cases of indigestion with respect to diet and exercise, should be strictly attended to by the barren lady.

If the cause be either general debility, irregularity of the menstrual evacuation, or an unhealthy state of the womb or ova, this treatment will probably remove it. When a mechanical cause exists, such as tumours or contractions, surgical aid will be necessary.

Anxiety and fretfulness, by increasing the general irritation of the nervous system, is very inimical to breeding.

OF BILIOUS COMPLAINTS.

Of late it has been a fashion to attribute a variety of disorders, particularly of the digestive organs, and of the head, to a redundancy of bile in the stomach; an idea evidently founded in error, and first broached by designing quacks, in order more successfully to impose their *antibilious* specifics on the credulous public.

It is a common practice to have recourse to an emetic

for the purpose of relieving the stomach of an accumulation of bile. During the operation, the liver being compressed by the action of the abdominal muscles, a quantity of the bile is forced into the intestines, and from thence into the stomach, which, on being brought up, the patient is led to suppose was in the stomach prior to the taking of the emetic. The matter, however, *first* vomited up, being evidently acid, is an indisputable proof that at the time of taking the emetic there was no bile in the stomach. The bile is also the *last* thing ejected. The advantage therefore arising from an emetic in those cases, is not by evacuating bile from the stomach, but by producing a greater flow of it into the intestines, rousing the action of the liver, and cleansing the stomach of slime and acid matter. In cases of indigestion there is generally a *deficiency* of bile, through a sluggish state of the liver; yet it is very common for such patients to complain of a preternatural collection of bile.

In the introduction to the first part of this work I have particularly noticed the probable office of the liver. It is the largest viscus in the animal body, and therefore it is a natural conclusion that its office is a very important one. The body is constantly undergoing a mutation. The meals we daily take are by the power of the stomach converted more or less into chyle, which is conveyed to the mass of blood, and by the series conducted to every part of the body for its nourishment. The old particles taken up by the absorbent vessels are also conveyed to the mass of blood; and hence it will appear obvious that a detergent of the blood, or some organ, is necessary to separate the old

particles from the blood. For this purpose the liver appears to be the principal organ, and as such its office is certainly a very important one. Hence we can account for the salutary effects of those medicines which increase the action of the liver in diseases of the skin; and many local, as well as constitutional, disorders, which were very correctly attributed by the ancients to foulness of the blood—a doctrine ridiculed by the moderns, whose theories are founded on hypothesis instead of facts. Some late authors suppose that the bile promotes the digestion of the food; but if this were its use, it would be emptied into the organ in which the food is digested; instead of which, the duct, which conveys it from the liver, terminates in the intestine. We also find, that when the bile is forced into the stomach by vomiting, or when it is excessive, as in cholera morbus, it produces the most distressing nausea.

By the change from a cold to a hot climate, the secretions of perspiration and bile are, in particular, increased. Hence Europeans on their arriving in the hot climates are very subject to redundancy of bile and disease of the liver. A continued exposure to the effects of heat at length induces a different state of the frame; the cellular substance of the liver becomes loaded with lymph, which increases considerably its bulk, and diminishes its power of action, so that the secretion of bile is at times nearly suspended. The gastric secretion is also vitiated. These effects sooner or later occur, accordingly as the person indulges himself in the use of spirituous or vinous liquors.

For the treatment of disease of the liver, and the disorders arising therefrom, in consequence of residing in

hot climate, or the abuse of spirituous or vinous liquors, the effects of which on the liver are very similar, see Indigestion.

OF BLEEDING AT THE NOSE.

A spontaneous discharge of blood from the nose, in young people, arises from a plethoric state of the *arteries*; and in people far advanced in life, from multitude of the *veins*. The discharge of blood from the nose is in general confined to one nostril; it occurs at the most part in warm weather, and is generally preceded by head-ach, redness of the face and eyes, noise in the ears, giddiness, frightful dreams, coldness of the extremities, &c.

TREATMENT.—In young people bleeding at the nose may be considered a slight complaint, and scarcely worth notice, unless the discharge be so profuse as materially to weaken the body. If it arise from plethora, and the system be not sufficiently unloaded by the evacuation from the nose, the loss of blood from the arm will be proper, as well as the occasional use of Aperient Mixture, No. 62, or the Neutral Purgative Pills, No. 2. After due evacuations from the bowels, Cooling Powders, No. 89, may be taken two or three times a day, in *cold* water, when its effects on the constitution render it necessary to stop it. Vinegar, diluted with water, should also be applied *cold* to the nostrils; and if these means fail to check the bleeding, a mass of lint, moistened with vinegar, may be introduced up the nostril, which, by coagulating the

blood, and *compressing* the ruptured vessel, generally succeeds if properly managed. The person should be kept in an erect posture, and exposed to a *cold* air, and every thing carefully avoided that is likely to irritate the part, such as blowing the nose, speaking, &c. The diet should be *low*, and *taken cold*, and the extremities kept warm. If it arise from suppression of the menstrual evacuation, which in young women is frequently the case, aloetic purges should be employed, and the legs frequently immersed in warm water. When attendant on *low* fever, it happens from the *weak state* of the vessels, and should be stopped by the compressive means suggested above. When it occurs in *old age*, and is preceded by head-ach, drowsiness, and redness of the face, it should be considered a premonitory symptom of apoplexy, and the preventive means already recommended for that disease should be immediately resorted to.

Whatever will produce rigours, or slight shivering of the body, as a cold key to the back, sprinkling the face with cold water, &c. will often speedily check the flow of blood from the nose and other parts of the body.

Such as are subject to this complaint ought to be particular in keeping their feet warm, and in obviating plethora by moderate exercise and spare diet, and the frequent use of the Epsom or Rochelle salt, No. 2.

In cases of bleeding of the nose, the first point to determine is, whether it be of a salutary nature, which, in cases of ambiguous fever, is often extremely difficult to decide. I have known fevers, pronounced by physicians of eminence to be putrid, suddenly terminat-

ed by a spontaneous discharge of blood from the nostrils, which at the time it happened was considered a most unfortunate occurrence. If it be preceded either by head-ach, giddiness, redness of the eyes, or disturbed sleep, or if occasioned by the violence of hooping-cough, or during labour, it may be considered of a salutary nature, and an indication for the adoption of those medicines and diet which tend to unload the system.

OF BLOOD DISCHARGED FROM THE URINARY PASSAGES.

This being a *symptomatic* affection, the treatment must, of course, depend on the nature of the *primary* complaint. If attended with *plethora*, the loss of blood from the arm, and the use of an aperient medicine, such as Castor Oil, No. 3, are proper. The saline purgatives are in this case less proper, on account of their rendering the urine more irritating. The diet should be low, unless the patient be much reduced, or the discharge of blood be the consequence of ulceration in the kidneys or bladder. In all cases stimulants, as pepper, salt, &c. should be avoided.

When it is occasioned by the *mechanical* action of a stone in the bladder, or gravel in the kidneys or ureters, it will require the treatment recommended for these complaints. When ulceration is the cause (which is known from its being attended with a discharge of matter), the essential oil of turpentine, in the dose of twelve drops, in marsh-mallow root tea, has generally

a very happy effect. Bear's whortleberry, in these affections, has proved particularly serviceable*.

The Iceland liverwort, with the spirit of turpentine, as above directed, I have lately found very beneficial in chronic diseases of the kidneys and bladder. A quarter of a pint of the decoction of liverwort should be taken three times a day. See Decoction, No. 117, page 84.

The treatment of a discharge of blood from the urinary passages must be regulated by the state of the constitution, for, like that from the nose, it may be of an active or passive kind. In cases of debility, which is generally attendant on ulceration of the kidneys and bladder, the bear's whortleberry or Iceland liverwort is a valuable medicine; but if the system be over-loaded with blood, the loss of blood from the arm, the use of castor oil, the Antimonial Febrifuge Powder, No. 37, page 5, and the warm bath, are proper. In all cases a mucilaginous drink, as linseed tea, decoction of the marsh-mallow root, or of pearl barley, should be adopted.

OF BOILS.

Boils may be always considered symptomatic of what is termed a bad habit of body; their suppuration should therefore be promoted, if the situation will admit of it,

* Half an ounce of the leaves may be infused in a pint of boiling water for six hours, and a wineglassful of the strained liquor taken about three times a day, with the spirit of turpentine, in the dose above directed.

ther by the application of the Gum-plaster, No. 59, spread on leather, or the Poultice, No. 112; and in case of their being painful, they may be fomented with a strong decoction of poppy-heads. After they break they require only to be kept clean, and defended from the external air by a mild poultice, or diachylon plaster, or spermaceti ointment. An alterative dose of Epsom Salt, No. 2, as directed, page 8, should be taken every morning, or an aperient powder of calomel and jalap, No. 27, or the Basilic Powder, No. 26, about twice a week, for at least four doses; and if, after their suppuration, the patient should be much reduced, the Tonic Mixture, No. 77, will have a good effect in strengthening the system, as well as correcting the constitution. The occasional use of the Aperient sulphureous Water, No. 2, will prove the best preventive. (See Cutaneous Diseases.)

When boils occur in a weakly constitution, the treatment recommended for indigestion will succeed better than purgatives and alteratives, by improving the general health. The inflammation producing boils commences in the cellular substance beneath the skin. In elderly and irritable subjects this inflammation often terminates in sloughing or mortification; which, in intemperate habits, sometimes spreads through the cellular substance, when it is termed *carbuncle*. In this case the strength of the patient must be supported by Peruvian bark, wine, and a generous diet. Laudanum, in the quantity of five drops, administered in each dose of the Peruvian bark, by allaying general irritation, is a valuable medicine. Besides the emollient poultice, No. 112, the inflamed skin should be washed twice a day with rectified spirit of wine.

OF BOILS OF THE GUMS.

CAUSES.—Boils of the gums are the consequences of a fit of the tooth-ach, cold, external violence, and a partial disease of the jaw-bone and decayed teeth.

TREATMENT.—When the boil arises from a carious tooth, its extraction is necessary; and when from other causes, suppuration may be promoted by the application of a roasted fig; and after the matter is evacuated, the mouth should be frequently rinsed out with the Acidulated Gargle, No. 93, or the tincture of the rhatany root, diluted with water, as directed page 99.

Some people are very liable to partial inflammation of the gums; and it is worthy of notice, that when they are allowed to suppurate, the interval of recurrence is much longer.

OF BURNS AND SCALDS.

Slight burns or scalds may in general be cured by the Liniment, No. 104, or Lotion, No. 102. If the person be of a plethoric habit of body, or if the system become feverish, however trifling the accident may be, it will be most prudent to empty the bowels, with either the Aperient Mixture, No. 62, or the Neutral Salts, No. 2, and to keep the system quiet by the Saline Mixture, No. 78. After the operation of the aperient medicine, five or six drops of Laudanum, No. 31, may be added to each dose of the saline mixture, particularly if attended with much pain, or the

mischief be extensive. A low diet is necessary till the inflammatory symptoms have subsided, when the usual mode of living may be gradually resumed.

I would advise this treatment to be adopted when the mischief is not very extensive; for if the constitution should sympathise with it, the cure will afterwards depend on the habit of body of the patient. From inattention to this constitutional treatment, the most trifling accidents are often productive of the most serious consequences.

The immersion of the part in cold water as soon as possible, affords instantaneous relief; and by keeping it a few hours in that situation, the mischief is certainly much diminished. The application of the oil of turpentine, in many instances, I have known to prove very beneficial.

When the injury is extensive or deep, mortification may always be apprehended, whether the subject be young or old; the advice therefore of a skilful surgeon should be resorted to without delay.

OF BRUISES AND SPRAINS.

In cases of sprains, the prevention of inflammation should be attempted by the application of leeches, and afterwards the Discutient Lotion, No. 102; to which may be added, in case of much pain, half an ounce of Laudanum, No. 31. The Aperient Mixture, No. 62, should be taken occasionally, and the Saline Mixture, No. 78, if fever intervene. If leeches cannot be readily procured, and the inflammation run high, the loss of

eight or ten ounces of blood from the arm will be proper. A low diet should be strictly observed till the first or inflammatory symptoms have subsided.

Superficial bruises may generally be cured by the application of Opodeldoc, No. 5, or the Discutient Lotion, No. 102, with the use of the Aperient Salts, No. 2, or Mixture, No. 62; but if the part have sustained much injury, mortification is to be apprehended, which in an elderly person may terminate unfavourably; such a case should therefore be referred to a practitioner in surgery.

The treatment of bruises and sprains, like burns and scalds, must be regulated by the state of the constitution. In an inflammatory habit the slightest accident is sometimes productive of the most serious consequences; it is therefore judicious practice always in the first instance to guard against subsequent mischief. The directions given for the prevention of sympathetic fever, in cases of burns and scalds, should be applied to in cases of bruises and sprains.

OF CANCER.

In the introduction to the first part of this work I have stated that the process of mutation is constantly going on in the animal body; and that, in consequence of an inequality of action in the absorbent and nutritive vessels, local derangement, or disease, occasionally takes place. When the discerning extremities of arteries do not perform their office, or when, from increased irritation, the absorbent vessels do more than their office, a deficiency of bulk, termed atrophy, or wasting, will follow.

When, on the contrary, the action of the absorbent vessels is diminished, in consequence of debility or morbid structure, there will be an accumulation of matter, forming tumours or swellings; and such tumour, or swelling, will be of the same nature as that of the structure of the part in which it takes place. Thus, if an accumulation occur in the cellular substance, an adipose tumour will be formed; if on the skin, a cuticular one; if in a bone, an osseous tumour: but in a gland, it will be more varied, from the difference of structure. Of morbid accumulations, that of glandular matter, or of structure approaching to it, is the most difficult to be acted on by the absorbent vessels, in consequence probably of the compactness or great cohesion of their articles. Such an accumulation is termed schirrus, from hardness of texture; which generally terminates in a peculiar process of ulceration or decomposition.

(Of the different glands subject to the morbid accumulation, none is so frequently the seat of this disease as the female breast, in consequence perhaps of its being more exposed to injury. Hence schirrus is a common disease at the period of life when the absorbent vessels have, in some degree, lost their power of action from diseased structure or debility, and in consequence of the increased rigidity of the parts which takes place in advanced life. This accumulation gradually increases, so as to compress the absorbent vessels. The intersecting cellular substance is, from adhesion, thickened, and, from partial compression of blood-vessels, lymph is effused, which collections have been mistaken by some anatomists for hydatids. At length the accumulated mass is so far increased, as mechanically to cut off

the source of nourishment, by compressing its nutrient arteries. In this case the enlarged gland becomes actually an extraneous body. Decomposition of course takes place in it, producing a peculiarly offensive ulcer. This process of decomposition proceeds till the whole gland sloughs away. By the absorption of putrid matter, the derangement in the structure of the lymphatic vessels is increased or extended, which renders the disease more obstinate of cure. This mischief at length extends to the glands in the arm-pits, producing the same morbid accumulation. These schirrus tumours, or accumulations of glandular matter, differ much from those which are the effect of increased ignition, which are produced by a deposition of lymph in their cellular substance, and distension of blood-vessels.

TREATMENT.—In the treatment of schirrus during the first stage, and particularly in the commencement of the attack, the great object in directing the cure is, to rouse the action of the absorbents of the parts, and, by doing so, to promote healthy mutation. To increase the action of these vessels, friction is certainly the most powerful means, the success of which must depend on the state of the absorbent vessels; but, in employing it, great caution is necessary to carry it no further than merely to excite their action, and not materially to increase the ignition or heat of the morbid part. By doing this, activity would be given to the disease. Hence, previously to having recourse to it, the morbid irritation should be allayed by extracting blood by means of leeches; by a sedative application; and by reducing the general ignition of the system, if it should run high. In this stage, the best local application I have found to be a plaster,

composed of mercury and a vegetable anodyne, spread on soft leather, according to the following form:—

Take of strong mercurial ointment, gum ammoniac, and extract of hemlock, of each equal parts.

The gum ammoniac to be reduced to a fine pulp by means of a little water, and afterwards the whole to be blended in a marble mortar. Over this plaster a dried hare-foot should be worn.

The constant action of this application, producing an increased secretion from the surface, and greatly exciting the absorbents of the part, will be found more beneficial than friction. With this local management, it will be proper to conjoin such means as will keep up a healthy state of the system, so that the effect of the local management may not by it be frustrated; and for this purpose I have found nothing answer so well as soda, which may be combined with a bitter, if symptoms of indigestion, or general debility, indicate its use. In prescribing this medicine, I direct six drachms of the soda to be dissolved in a quart of distilled water, and of this solution a wineglassful to be taken three or four times a day, with a teaspoonful of a compound tincture of gentian, or two teaspoonfuls of the compound tincture of rhatany root, as the state of the system may require.

Soda not only destroys acidity (a prevailing symptom in weak stomachs), but preserves the system in general in a quiet and regular state. Particular attention should be paid to the regularity of the bowels; and when costiveness prevails, two drachms of Epsom salt may be taken every morning, as circumstances may require.

Should there be appearances indicating visceral obstruction, a grain of calomel should also be administered every or every other night (formed into a pill), and continued for a week or ten days at a time. See Indigestion.

In diseases like the present, it is of great consequence to allay the general nervous inquietude of habit. Hence the mind, as the most powerful agent in disturbing the nervous system, should be kept in a tranquil and steady frame. Anodyne and nervous medicines will accordingly, with such patients, be highly useful.

Equally with the use of medicines, the regulation of diet claims an important consideration, in regard to which we must take into the account the former habits of the patient and state of constitution. If the constitution be not much reduced, vegetables should form the principal part of the nutriment; while the best beverage will be distilled water, being deprived of any chemical combination that might irritate, or produce disturbance, in the system. But if the habit be much debilitated, a more generous diet will be indispensable; for too low a regimen is apt to increase general nervousness, which renders the patient uncomfortable, by increasing the symptoms of dyspepsia, and thus aggravating the progress of the disease.

Where the process of decomposition has begun, and an open ulcer is making rapid progress, the chief attention must be directed to the declining health of the patient, under its ravages. To counteract the decomposing process, and suspend the ulceration, by keeping up the vitality of the parts, the surface of the sore should be sprinkled with the phosphate of iron, which I have

and to answer this purpose better than any other preparation. The best method of using it is to form it to a thin paste with water, and apply it, by means of a hair pencil, to the surface of the ulcer every morning, over which a cataplasm of fine charcoal powder and oatmeal should be placed, of the temperature of new milk. The poultice should be regularly changed twice a day.

The strictest care should be paid in this stage to support the strength, and preserve the patient from sinking under the discharge and loss of rest.

If the system be free from fever, and the countenance solid, from five to ten grains of the oxyphosphate of iron may be administered two or three times a day.

Before decomposition has taken place, and the skin is ulcerated, preparations of iron are manifestly useful.

Wine should be allowed in such quantities as to give strength, but not to excite heat or fever; and anodynes must, at the same time, be occasionally employed to mitigate pain. The mind also should be soothed, and kept in a cheerful state, as nothing is so apt as peevishness and despair to produce irritation in the system.

These methods of treating this disease I have found to succeed in several desperate cases, in which the operation of extirpation had been urged as the only and dernier resort.

OF CATALEPSY.

This is a very extraordinary disease. It attacks in at irregular intervals, which generally last only a

few minutes, but sometimes continue two or three days, when it is termed by the ignorant a *trance*. It is seldom succeeded by any derangement of the system; the patient, after falling suddenly down, remains senseless and motionless. The limbs readily admit of being moved, and continue in the position in which they are placed till the termination of the fit. Although all the senses seem entirely suspended, yet he will swallow with avidity any liquid put into the mouth. The countenance is florid, the eye-lids remain open, and the eyes seem fixed on some object. Sometimes there is a grinding of the teeth, and discharge of tears. The fit, sooner or later, terminates by sighing.

Dr. Cullen observes, that he never saw a case of catalepsy but what was counterfeited; and the same has been said by others. When it is not feigned, he considers it a species of apoplexy; but there is a very evident difference between a fit of catalepsy and apoplexy.

CAUSES.—It may be brought on by passions of the mind—as fear, anxiety, anger; by intense thought, worms, and excesses of any kind.

TREATMENT.—If the patient be of a plethoric habit, or the face very red, and the blood-vessels of the head and neck distended, eight or ten ounces of blood should be taken from the arm, or from the back part of the neck, by cupping. The Aperient Mixture*, No. 62, and Antispasmodic Clyster, No. 98, will also be ne-

* If the patient make a noise with the teeth, the existence of worms in the stomach may be suspected; in which case the Basilic Powder, No. 36, should be administered in lieu of the mixture.

sary, and the Mustard Poultice, No. 111, applied to the feet.

Two or three tablespoonfuls of the following mixture could likewise be given every four or five hours:—

of asafoetida gum, one drachm; Hoffman's anodyne liquor, two drachms; spirit of sal volatile, two drachms; camphorated julep, six ounces. Mix.

The smelling salts, or the camphorated acetic acid, may likewise be frequently placed to the nostrils.

If the disease should continue notwithstanding the employment of these remedies, the head should be shaved, and well rubbed with the following liniment:—

of oil of amber, four drachms; spirit of hartshorn, half an ounce; oil of rosemary, two drachms.

Slight electric shocks have in some instances been in service; but blisters do not appear to have been attended with any beneficial effect.

OF CATARACT.

This is a species of blindness, occasioned by an opacity of the crystalline humour of the eye, preventing the transmission of the rays of light to the optic nerve. If the retina (the expansion of the optic nerve in the interior of the eye) be not diseased, vision may, in most cases, be restored, by either depressing the diseased humour, or extracting it entirely, which is technically termed *couching*.

With respect to the advantages of depression over

extraction, there is great difference of opinion. Many very respectable surgeons give the decided preference to the former. This operation is certainly less painful and hazardous than extraction, and will ultimately answer; for if the lens happen to be too soft to be wholly depressed (which cannot always be predetermined), it will probably be absorbed, after its cyst is ruptured, which may be promoted by the exhibition of a little mercury. The only objection to this operation is, that the lens will sometimes rise again into its former situation; but this is a very rare occurrence. Some of the first oculists recommend the extraction of the lens; but it must be allowed that the intention is too often frustrated by the inflammation and consequent thickening of the tunics of the eye; and it not unfrequently happens, that after the patient has gone through the pain of the incision, the lens is too soft to be removed entirely. The depression of the lens, on account of the operation being more simple, less painful, attended with little or no risk, and of succeeding as often as extraction, is entitled to the preference. Mr. William Hey, of Leeds, after thirty-three years' practice in diseases of the eye, states that *experience* has led him to prefer the mode of *depression*, and very ably and satisfactorily confutes the arguments adduced by Baron Venzet and Mr. Ware in favour of extraction.

So many well-authenticated instances of the absorption of opake lenses, by the *internal* use of mercury combined with hemlock, having been published by respectable practitioners, the operation should in no instance be recommended till these medicines

have had a *fair* trial. The following is the usual form for their exhibition:—

Take of extract of hemlock, one drachm; prepared calomel, fifteen grains. To be well mixed, and divided into twenty pills. One to be taken three times a day.

Of all the preparations of mercury, I have found the muriate to answer best in this disease. Eight grains of this preparation may be dissolved in an ounce of spirit of wine, of which ten drops may be taken in a wineglassful of barley-water twice a day: after taking this solution a week, the dose may be increased to twenty, or even thirty drops, if the stomach will bear it. In the course of three or four weeks the patient will be enabled to determine whether it be likely to prove of any utility.

The state of the general health of the body should be attended to. If the digestive organs be disordered, the treatment recommended for Indigestion should be adopted. If the patient suffer from a determination of blood to the head, producing head-ach, redness of eyes, or giddiness, the loss of blood either by cupping or venesection, or a blister to the nape of the neck, will be proper.

Electric sparks may likewise be applied to the ball of the eye once or twice a day.

The following remarkable case of the gradual disappearance of a cataract, is an evident proof that the absorbent vessels of the part are equal to the removal of a diseased lens.

Admiral Henry being afflicted with a cataract in both eyes, consulted Mr. Ware, who recommended their extraction. The admiral agreed to the operation

of one eye, and in case it answered, he promised to allow him to extract the other. Unfortunately, however, he was not in the least benefited by it; for so much inflammation and thickening of the cornea succeeded, as entirely to destroy vision. The admiral having cured himself of many obstinate attacks of rheumatism and gout by friction, and by rubbing the parts with a piece of wood, resolved to make the same experiment on the eye affected with cataract. After rubbing the ball of the eye, and at times gently beating it with a small wooden hammer (the eye-lids being closed), in a few weeks he found that he could discern a luminous body, and by continuing the practice, the diseased lens was so totally absorbed, that the gallant admiral was enabled to read small print.

OF CATARRH, CORYZA, AND INFLUENZA.

Catarrh consists in an increased irritation of the membrane lining the nostrils, fauces, and often the windpipe, attended with slight fever, and sometimes with cough. It generally begins with a sense of stoppage in the nose, a dull pain and a sense of weight in the forehead, and stiffness in the motion of the eyes; and soon after a discharge of a thin fluid from the nose, and often the eyes, which constitute the complaint termed *coryza*. When the symptoms run high, and the disease is very prevalent, it is named *influenza*.

CATARRH.

CAUSE.—This disease is evidently produced by cold air, but whether by its immediate effect on the parts

affected, or by diminishing the perspiration of the body, is difficult to say.

TREATMENT.—When the circulation is not much accelerated and heat of body increased, it is only necessary to empty the bowels by a gentle aperient medicine, as castor oil or jalap powder, to avoid exposure to the cold atmosphere, and to adopt a low diet: but if the symptoms run high, it will be proper to keep in bed, and take *frequently* some warm diluting drink, as barley-water, gruel, or *weak* white wine whey, with the view of promoting perspiration. The Cough Mixture, No. 66, should also be taken every three or four hours; and if the patient be afflicted with *pains* in the chest, and difficulty of breathing, or predisposed to consumption, the loss of blood from the arm, and the application of a blister to the side most affected, or over the breast-bone, should not be delayed. The diet should be low, and the almond emulsion, or the compound barley-water, with a little liquorice root boiled in it, as directed page 96, should be employed as the common beverage. See *Cough*.

People affected with catarrh generally regard it as a very trifling complaint; it is, however, often the forerunner of very serious affections, such as inflammation of the brain, lungs, and inflammatory fever, and in scrofulous habits it is frequently the exciting cause of consumption. It is therefore judicious practice on the first attack of catarrh, to quiet the system by an aperient and sudorific medicine, and in plethoric habits by bleeding, to prevent its producing any mischief in the constitution.

OF THE CHICKEN OR SWINE POX.

The eruption termed Chicken Pox sometimes appears without any previous illness, but most commonly it is preceded by slight fever. The vesicles are *always distinct*, and *less* in size than those of the *small pox*; on the second day there is on the top of most of them a very small bladder, about the size of a millet seed, containing a thin, colourless, and sometimes a yellowish fluid. This disease generally terminates in *three* or *four* days, from the first appearance of the eruption, and is attended with so little danger as to require no restraint of diet, or medical treatment, till *after* the *crusts* of the pustules begin to peel of, when it will be proper to administer a dose of the Basilic Powder, No. 36, and to repeat it every third or fourth morning for a fortnight.

This eruption may be distinguished from that of the small-pox by being preceded by little or no disturbance of the system; by the *early* appearance of the vesicles on the top of the eruptions, the contents of which never acquire the *colour* or *consistency* of *pus*; by the pustules being *dry* and covered with *crusts* on the *fifth* day; and by the eruption being generally first visible on the *back*.

OF CHILBLAIN.

This effect of cold on the skin is somewhat similar to that produced by heat, termed scalds and burns: the inflammation, from the injury done to the nerves and lymphatic vessels, is very irritable and difficult of cure.

The sudden restoration of heat to a part benumbed cold, by placing it near the fire, is the most frequent cause of chilblains.

TREATMENT.—When a part is frost-bitten, it should be plunged into the *coldest* water, and afterwards gently rubbed with flannel. When it is slightly benumbed, camphorated spirit of wine or opodeldoc, with a little laudanum, will be sufficient; but when the skin cracks and discharges an *acrid* matter, poultices should be applied, but not for any length of time, as their continuance is apt to produce *fungous excrescences*. When the inflammation is reduced by these means, the application of diachylon plaster spread on leather, will effect a cure. An ointment composed of equal parts of saturated quicksilver ointment and olive oil, is also a very excellent application for chilblains in every stage, particularly when the skin is cracked or ulcerated. It should be well rubbed into the parts with the warm hand: but if the skin be cracked, it may be spread upon it; and in case of much inflammation, a poultice of bread and water may be applied over it.

People subject to chilblains should, on the approach of winter, wear flannel socks, and gloves lined with flannel; and if the heels suffer most by them, it will be advisable to cover them with the diachylon plaster spread on thin leather.

When the inflammation is extensive, like that attendant on scalds and burns, it not unfrequently terminates in mortification: in this case, the treatment must be regulated by the state of the general health of the patient. The observations on the constitutional treatment of bruises and scalds equally apply to chilblains.

CHOLERA MORBUS.

This disease consists in excessive secretion of the bile, occasioning violent vomiting, purging, and pains in the bowels. The constitution is often much disturbed when it is attended more or less with thirst, cold sweats, fainting, coldness of the extremities, irregular and small pulse, and troublesome hiccough. It is most prevalent during hot weather; and when the symptoms are violent, it often proves fatal in forty-eight hours.

CAUSES.—As the disease occurs most frequently in warm climates, and in cold climates during the hottest months of the summer, it is very probably the effect of a *warm* atmosphere, which, by increasing irritation of the liver, produces an excessive secretion of bile*. In people whose livers are naturally very irritable, it may be produced by whatever may disturb the general health, as excessive drinking, exposure to cold, &c.

TREATMENT.—The first object in the treatment of this disease is to dilute the bile, by directing the patient to drink very plentifully of barley-water, gruel, or warm water, in order to prevent its irritating the alimentary canal. With the same view a clyster of gruel may be administered twice a day: if the purging, vomiting, or pain in the bowels, be violent, from fifteen to thirty drops of liquid laudanum may be given in mint-water or tea. If the vomiting continue obstinate after the use of laudanum, one drachm should also be admi-

* Whenever any of the secretions of the body are excessive, they are always more acrid in their quality.

tered in a half a pint of gruel or starch jelly, by way of clyster. If the bowels swell, the belly should be mented with a decoction of camomile flowers, or the patient be put into a warm-bath for ten or fifteen minutes. A large blister should also in this case be applied over the region of the stomach and liver.

Dr. Douglas, in the Medical Essays, recommends a decoction of oat bread, toasted as brown as coffee, to be taken freely. He says that he does not remember that this decoction was ever vomited by any of his patients. Mint tea is also said to be very efficacious in this disorder.

If laudanum be not retained in the stomach, it may be given with eight drops of the diluted vitriolic acid; and if this form be ejected, a pill of two grains of pure opium may be administered in their stead.

When the vomiting is not very troublesome, Dr. Ferriarola recommends from twenty to thirty grains of ipecacuanha powder to be given, and the patient afterwards to drink copiously of chicken broth, or barley-water.

When this disease proves fatal, it is by producing shock in the system. On the first attack we should therefore attend particularly to the state of constitution. If the patient be plethoric, the loss of blood will be proper, for the determination of blood to the head, occasioned by vomiting, is in such a habit very likely to be productive of great mischief. If attended with fullness in the right side, it will also be proper to apply a blister over the region of the liver, and to hasten its operation by previously rubbing the skin with the strong spirit of ammonia.

After the vomiting and purging have ceased, the

stomach and bowels will require the use of some mild tonic medicine. For this purpose the decoction of the Iceland moss, on account of the bitter being combined with mucilage, will answer best. To each dose six drops of the diluted vitriolic acid may be added; and as soon as the nausea and feverish state of the system have entirely subsided, two teaspoonfuls of the aromatic tincture of rhatany may be added with advantage.

The bowels should be kept open by small doses of Epsom salt, or rhubarb powder.

OF COLIC.

This disorder is known by a violent pain in the bowels, commonly about the navel. The pain resembles various kinds of sensations, as of burning, twisting, boring, or a ligature drawn very tight round the intestines. The belly is generally costive. When there is a violent evacuation of bilious matter, both upwards and downwards, it constitutes the disease termed *Cholera Morbus*.

It is often very difficult to distinguish mere irritation of intestines from inflammation. If the pain be acute, and especially if attended or preceded by *rigors* and *fever*, medical assistance should be procured without loss of time, as the intestines cannot sustain inflammation many hours without endangering the life of the patient.

CAUSES.—By austere, acrid, or indigestible aliment taken into the stomach; the application of poisons, as lead, &c.; and sometimes worms and costiveness.

TREATMENT.—The first object is to evacuate the contents of the intestines, by the use of Castor Oil, No. 3, with the Aperient Mixture, No. 62, and the Clyster, No. 97. The *spasmodic* affection of the bowels may be relieved by fomentation, or the warmth, and the use of ten to twenty drops of Laudanum, No. 31, the occasional exhibition of the Anti-spasmodic Mixture, No. 70, and the Clyster, No. 98. In case of fever, with a full pulse, the loss of blood from the arm will sometimes be proper to *prevent* inflammation of the bowels. The dose of laudanum may be increased or repeated according to the *severity* of the pain, even during the time the remedies are employed to procure a stool. It will, however, in all cases, be most prudent to defer the use of this remedy till three or four evacuations be produced by the aperient medicine.

HOW DISTINGUISHED. — The young practitioner will be able to distinguish colic from inflammation of the intestines by the pain being *wringing*, and not of a *burning* sensation; by the spasmodic contraction of the *abdominal muscles*; by the *absence* or *trifling* degree of fever; by the state of the pulse; and by the *diminution* of pain upon pressure.

PREVENTION.—People subject to this disease should avoid much vegetable food and fermented liquors, guard against costiveness by a warm purgative medicine, as the Compound Tincture of Senna, No. 8, and should wear flannel next the skin.

CONSUMPTION OF THE LUNGS.

Diseases of the lungs have, for a long period of time, engaged my particular attention; and, that the subject might derive every advantage which experience, and a field of observation, could afford, in investigating their varieties and treatment, in the year 1805 I projected a plan of a Dispensary for patients afflicted with pulmonary complaints. This plan was laid before HIS ROYAL HIGHNESS THE PRINCE REGENT, who, with the warm spirit of benevolence, became its avowed patron. *A number of the nobility, animated by the same laudible zeal, gave

* For very liberal contributions to this Institution the author is much indebted to their graces the Duke and Duchess of Leeds, the Marchioness of Hertford, the Bishop of Llandaff, the Countess of Gosford, the Lady Middleton, the Lady Effingham, the Lady Caroline Wortley, the Lady Olivia Sparrow, Mrs. Foljambe, the Honourable and Reverend John Lumley Saville, Mrs. Dixon, Col. Clitheroe, Mrs. Rucker, Dr. Cheston, the Reverend Dr. Charles Simmons, J. Walker, Esq. — Cross, Esq. &c. &c.

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Subscribers of one guinea annually are entitled to recommend three patients in the course of the year, who receive advice and medicine gratuitously. Any respectable house-keeper may recommend a patient; but to such patients advice only is given.

their support; and an opportunity was thus afforded me of relieving a vast number of consumptive patients who are excluded from the benefit of other public charities, of seeing to what length medicine could be beneficial in these diseases, of trying every kind and variety of it which has been brought forward and received the encomiums of professional men. The result of the extensive experience thus acquired, I have lately laid before the public, in a work entitled "A Practical Treatise on the varieties of Pulmonary Consumption, and of Asthma," illustrated by plates, in which I have traced the morbid appearances with the knife, and accurately investigated the history, before I detailed an account of the treatment.

No less than thirty different species of pulmonary consumption are enumerated by authors of nosologies, distinguished from the particular diseases with which they are complicated, and which act only as so many exciting causes.

This pompous and unmeaning exhibition of distinctions fruitlessly increases the long list of diseases; and, in former days, when the wig and cane had their due sequence, and a grave and solemn air was the test of being "groundedly learned," such distinctions gave a field for the use of hard words, which bore to the ignorant bye-stander a parade of science in sound;—an artifice which is never united with real judgment or information.

All organic diseases being the province of the surgeon, a knowledge of surgery is essential to constitute the character of a physician; for the man who is best acquainted with the natural and morbid struc-

ture is the most competent to undertake their cure*.

Pulmonary consumption may be divided into three species, founded on morbid appearances which the lungs exhibit on dissection.

The first is the scrofulous species, as marked by the existence of tubercles in the lungs.

The second is the erysipelatous species, occasioned principally by a saline state of the blood.

The third is the consumption of old age, being the sequel of the chronic or asthmatic cough, attended with ossification of arteries.

Consumption of the lungs has been represented, by some authors, to be of an infectious nature. This opinion prevails so strongly in the southern parts of Europe, that consumptive patients, particularly in Portugal, will hardly be admitted into a lodging-

* Physicians, in general, being ignorant of surgery and morbid anatomy, cannot make a proper distinction between *constitutional* derangement, the *effect* of *local* disease—and of *local* disease, the *effect* of *constitutional* derangement:—hence, too often, in the constitutional treatment of diseases, the local derangement is allowed to advance, while they are engaged in merely quieting symptoms, and to this cause the fatality of pulmonary consumption may be attributed.

No proportionate remedy being administered, the malady, which, by active means in its commencement, might have been arrested and cured, is suffered to advance to suppuration; and the lungs, in consequence, sustain a loss of substance, which renders them incapable of performing their important functions and office in the animal machine. Even on the surface of the body, these ulcerations, though admitting of topical application, are always unfavourable to heal; and this difficulty is increased in the lungs, in consequence of their constant dilatation and contraction during respiration, and their possessing, also, less power of regeneration or mutation, than any other part of the body.

use, when they arrive from this country under the disease. The bodies, also, of consumptive patients are bid to be opened, and even their clothes are burnt over their decease. But, in this country, I have never known an instance in which the disease could be traced so as to derive its origin from communication with a patient in this state; and, wherever suspicions of it have occurred, I have uniformly found such patients clearly predisposed to the disease; and I have never considered that those even in the closest intimacy with the person, were exposed to the smallest risk.

Of Scrofulous Consumption of the Lungs.

For the causes and nature of scrofula, see King's *Bill* and "Absorbent System," in the introduction to the first of this work.

CAUSES.—Any disturbance of the general health in scrofulous habit which produces irritation of the lungs, or whatever may occasion an increased determination to that organ, will act as an exciting cause of this disease. Of these the most frequent is a cough, or common cold; and hence pulmonary consumption may be referred oftener to the source of a neglected cold, than any other.

SYMPTOMS AND PROGRESS.—This species of consumption often comes on very insidiously. In consequence of the irritation in the lungs, scrofulous lymph is partially deposited in their cellular substance, forming what are termed tubercles*, which mechanic-

* These depositions, when they inflame, become hard, so as to be mistaken for conglobate glands. On close examination, they will not be found of a vascular structure.

ally produce inconvenience, in proportion to their number and size, by preventing their due expansion, and obstructing the free circulation of the blood through them. This is apparent by the patient being affected by a shortness of breathing, and irregular action of the heart, particularly on much exercise. During the exertion of coughing, in consequence of partial congestion of vessels, a rupture of their coats occasioning hemoptoe, or spitting of blood, is often produced*. Owing to the impediment produced to the free return of blood from the head, the sinuses of the brain become over-distended, occasioning head-ach, giddiness, disturbed sleep, and a variety of other symptoms†.

But, in many cases, depositions of scrofulous lymph in the cellular substance of the lungs, produce no other effects than those which arise from their mechanical action; such as confined breathing, interruption to the circulation, irregular action of the heart, over-distension of blood-vessels, unattended with cough or pain; and this will continue for many winters, before active disease takes place; in the same manner as we find a similar deposition in the

* In every case of consumption that has followed hemoptoe, or spitting of blood, in which I have had an opportunity to examine the state of the lungs, I have uniformly found the same morbid appearance as when no such occurrence happened. Spitting of blood, when it terminates in consumption, is always preceded by the symptoms indicating the loaded state of the cellular substance of the lungs, in consequence of deposition of scrofulous lymph.

† Drowsiness, head-ach, and giddiness, are generally the first symptoms of which the patient complains.

ands of the neck, though it occasions their swelling, does not for many seasons come to actual suppuration: the depositions in the lungs seem evidently to require a certain state of constitution to induce suppuration.

I have reason to believe, that in some instances inflammatory action has been confined to one section only; and the ulcer, in consequence, has continued for many years, without producing so much local irritation as to disturb the general health.

If the partial depositions do not proceed to inflammation, they will be partly absorbed during the summer, so that the patient will experience great relief;

on the return of spring, a season when the vital powers run higher, both in the animal and vegetable kingdom, and when, of course, latent constitutional diseases are generally brought into action, the inflammatory process takes place, and the pulmonary affection assumes a serious aspect; and therefore the cough that occurs in spring and summer requires more particular attention than the winter cough.

When inflammation takes place in a part of accumulated lymph, or morbid disposition, the patient becomes affected with cough, attended with heat and a slight fever, marked with slight rigors or shivering; but very different from the hectic species which attends the last stage of the malady. The partial suppurations at length break, and empty their contents through a very small aperture*, into the air-

*The ulcerated surface is not exposed to the action of the cold air, as is generally imagined, but communicates by a small sinus.

cells, or bronchial ramifications. The irritation, however, kept up in the lungs, occasions fresh depositions in different parts of their cellular substance, which advance to suppuration in a similar manner; and thus a series of suppurations, or a continued inflammatory action, is kept up, till a great proportion of it is destroyed, and the organ is no longer capable of duly performing its important office in the animal machine. The mischief sometimes only commences in one lung, which is often nearly destroyed before it begins its attack on the other*. When the mischief commences in the upper lobe, the cough and breathing are more

* A remarkable instance of this kind occurred in a young lady of colour (Miss Smith), aged eighteen, at the Oxford boarding-school, *Mary-la-bonne*. On my first visit, I found this young lady in such a state of emaciation and weakness, that I considered her within a day or two of her dissolution. Her cough was very troublesome, and breathing very laborious, with an intermittent and very frequent pulse. She could only lie on the right side; and on moving, she complained of a sensation of the chest being filled with water. In this distressing state she continued for upwards of a month. About twenty hours after her dissolution, I obtained permission to examine the state of the lungs. On opening the chest, the left side was found to be filled with a mixture of serum, of pus, and filaments, resembling putrified blood-vessels, without the least vestige of the lung. In the right lung, the cellular substance was so loaded with lymph, that it did not collapse: partial inflammations had taken place, but none had advanced to suppuration. This case was interesting, as exhibiting the disease in its different stages. The disease not having taken place longer than a month in the right lung, the lower lobe shewed it in its earliest stage; and in the upper lobe the inflammation had just commenced, forming circumscribed tumours. The thymus gland was very large, particularly hard, and weighed nearly twelve ounces. The mechanical effect of this diseased gland was very distressing to her; she often said, that if this hard substance were removed, pointing to the seat of the gland, she should soon recover.

troublesome than in the lower lobe; in this case the patient refers the seat of the disease more to the windpipe than to the lungs. When, on the contrary, it attacks the undermost part, adhesion betwixt the lungs and diaphragm is apt to take place, producing the most distressing symptoms of vomiting and hiccup*.

The breaking of a partial suppuration, or, in technical language, of a vomica, is universally attended with relief; and the local affection, as well as the constitutional symptoms, are so far suspended, that the patient considers himself in a convalescent state. The breath-

When the disease commences in the lowermost part of the lung, adhesion to the diaphragm generally takes place, producing vomiting; and if it happen to be in the right side, the seat of the mischief is referred to the liver. Of these cases I have met with several instances: of which I select the following, as the most remarkable.

Mr. Gwin, of No. 3, College-street, Westminster.—This gentleman first complained of cough, &c. attended with trifling expectoration. The constitutional disturbance—as frequent fevers, &c.—shewed that a formidable disease was going on in the chest. In about three weeks after the commencement of the fevers, he was affected with vomiting, and acute pain in the side; which, notwithstanding cupping and blistering, and other remedies to quiet the system, continued for a fortnight, when, all a sudden, the pain ceased, and on vomiting, he brought up a considerable quantity of matter, with a little blood. He also, soon after, expectorated a great quantity of pus, tinged with blood. In this case it appears that adhesion had also taken place between the diaphragm and stomach; and that the abscess, at first formed in the lung, had broke into the stomach. The patient immediately experienced wonderful facility of breathing, and gradually recovered. He afterwards lived about six years, and died dropsical.

Two very similar instances occurred, in my practice, in the space of one year, both of which terminated favourably,—probably in consequence of the depending discharge afforded by the contents of the abscesses.

ing and expectoration become easier, and the appetite improved. A ray of hope is thus enjoyed, though it is but a short-lived gratification. The matter emptied from the vomica into the bronchial ramification is, in the first instance, brought up enveloped in much mucus, and sometimes slightly tinged with blood, and, for the most part, offensive to the taste and smell. The ulcerations consequent on the suppuration in the cellular substance of the lungs continue to discharge a small quantity of matter, which is brought up with more or less mucus, thrown out by the irritated membrane of the bronchial ramifications and windpipe*.

When the inflammatory action is more confined to the outward surface of the lungs, it extends to the membranous covering, termed the *pleura pulmonalis*; and adhesions form between it and the membrane lining the chest, termed the *pleura costalis*; the consequence of which is, that acute pains, vulgarly termed stitches, are felt, more particularly on coughing, or on certain positions of body†, especially on lying on the opposite side.

* The largest quantity of pus brought up, on the breaking of one of these suppurated tumours, is a small spoonful. The quantity which afterwards continues to escape from the cavity is very trifling, and always brought up enveloped in mucus. Much has been said on the appearance of the expectoration, as determining the existence of ulceration; but the experiments made have been on the entire expectorated matter, without detaching the pus. When the internal membrane is much inflamed, the matter brought up will be more or less morbid or puriform. The pus may be separated, by agitating the expectorated matter in distilled water. The matter will gravitate in detached particles, and the mucus will ascend. Scrofulous pus may also be easily distinguished by a microscope.

† It may be worthy remark, that during respiration in a

Collections of matter are often discharged between these last two membranes; and such discharge is uniformly marked by considerable irritation; for the matter being taken up into the circulation, a great constitutional disturbance is produced, which re-acts on the organic disease or affection of the lungs*.

Even of health the lungs are not expanded to their full extent, so that their substance may be loaded with lymph in subjects whose constitutions are not readily disturbed by sympathy, without materially affecting the general health. When emaciation has taken place, and the general health has suffered by hectic fever, a conclusion may therefore be generally drawn, that the mischief is extensive. It is a common practice to direct consumptive patients to expand their lungs, by taking a full inspiration, in order to ascertain whether their capacity is diminished by organic disease. The feelings of such patients induce them to do it in that cautious and slow manner, so as to lead practitioners to suppose that they have the power of expanding their lungs to their natural extent. The volume of air expired, is the only criterion by which we are to judge, and not by an *apparently* deep inspiration.

I have met with cases of organic disease of the lungs, attended with an incessant short cough (termed, by patients, hacking cough), which, throughout the progress, was not attended with the least expectoration. The case of the late Princess Amelia was of this kind. Her royal highness suffered much from acute pains in the right side, attended with a dry short cough. From the use of setons in the right side, she derived the most essential relief. The pains gradually abated, the cough ceased to be troublesome, and she was so far recovered, that, by the urgent persuasion of one of her medical attendants, she visited the sea-side for the purpose of establishing her general health. The journey, unfortunately, brought on the irritation in the chest; and symptoms, in a short time, running high. The recurrence of diseased action, in a patient who has recently suffered by a most formidable attack, is more to be dreaded than the primary affection; and the unfortunate termination of this case points out the propriety of an old maxim, of "letting well alone." By officiousness to accelerate the complete recovery of patients (particularly after organic diseases of the lungs), much irreparable mischief is frequently produced.

By this succession of suppurations, so great a proportion of the substance of the lungs is destroyed, that their functions are imperfectly performed, and a due quantity of oxygen is no longer supplied to the system. Hence there is a deficiency of animal ignition, and a variety of morbid symptoms is, in consequence, induced. As the constitution begins to give way, a fresh train progressively succeeds. If the abscesses are unfavourably situated for emptying their contents, in order to be expectorated, the matter taken up by the absorbent vessels passes into the circulation, and the fever termed hectic is thereby chiefly induced, being a very different species of fever from that which attends the commencement of the disease, or the suppurative process. Instead of slight rigors, the patient is here attacked with an accession of shivering, often amounting to ague, followed by increased heat, and a long and copious perspiration; after which, the head-ach gradually goes off, and the appetite returns. But when, instead of this unfavourable state, the matter is properly evacuated into the bronchial vessels, and brought up by cough, the hectic fever does not come on till within a week or two previous to the dissolution of the patient, and even then is often very slight. When the matter enters the mass of blood, it often passes off in considerable quantity by urine, rendering it turbid, and offensive to the smell*.

* In two instances of diseased lungs, the patients never perspired, but were affected with a very great discharge of urine, resembling diabetes. The urine was free from saccharine matter; and emitted an odour similar to the colligative perspiration of consumptive patients in the last stage of the disease.

As the lungs, in the progress of the disease, become longer capable of properly executing their function supplying oxygen to the system, so from this period the hectic fever assumes its peculiar characters. Nature seems to make a diurnal effort to supply the deficiency of oxygen, by attracting it from every part of the body exposed to the action of the atmosphere, commencing those parts where the skin is thinnest, viz. the lips, cheeks, and the internal surface of the nostrils; and, as the disease advances, this process extends over the face, the nose, the ears, and external part of the fingers, producing superficial increased ignition, viz. redness and heat*: while the other parts not exposed to the air continue pale and cool; for the heat on which the vitality of the body depends, being, as observed in the introduction to the first part of this work, produced by the electric matter conducted from the skin through the medium of the nerves, and the oxygen that enters the circulation by the lungs, there will be a deficiency of the latter principle in proportion to the extent of disease in the lungs. Nature, during the exacerbation of the hectic fever, thus makes an effort to supply the system with vital air, in order that the different processes may go on for some hours longer; and thus the patient is afterwards more comfortable, and is, at the same time, quieter. But when the functions of the organs immediately engaged in

Increased redness and heat of the skin, Dr. Beddoes, and others, supposed to arise from the blood being over-oxygenated; thus inferring, that the lungs after losing a proportion of their substance perform their office better than in a state of health. The arterial blood, taken during this stage of the disease, plainly shews a deficiency of oxygen.

the mutation of the body are more interrupted, and the body loses its muscular power, the morbid irritation increases, and extends through every part: the intestines losing their tone, the patient is affected with diarrhœa, and the nocturnal perspiration becomes more copious, and offensive. In females, the womb ceases to perform its monthly secretion*; but often after this interruption the patient becomes pregnant; and if she have strength of body to go beyond the third month, the disease of the lungs is very frequently, in some degree, suspended, probably in consequence of the increased determination of blood to the womb.

As the debility of body increases, the circulation to the extremities becomes languid; the evidence of which is conspicuous in the absence of fever, by a great deficiency of heat: the legs, in consequence, swell; the nails are pale; and from the same cause, of a defect of vitality in the hairy scalp, the hair becomes dry, and is so easily eradicated as to be removed in quantities by the mere operation of combing. The eyes also assume a pearly colour; and generally, some weeks prior to the fatal close of the disease, a degree of irritation takes place in the internal surface of the windpipe, or trachea, attended with exudations of lymph, termed aphthæ, which spread to the palate, and often extend down the gullet, and even throughout the intestinal canal. This symptom increases much the suffering of the patient, by producing sore-throat,

* The cessation of the menses is generally considered of a very unfavourable import; but I have known several instances of the recovery of patients after an interruption of three months.

ans in the bowels, and obstinate purging, sometimes
ged with blood, and attended with tensions of the
domen. The brain seems to be the last part that
es way; and hence the intellectual functions re-
in often unimpaired, till within a few hours of
olution. When the powers of life begin to lessen,
patient feels a disposition to dose, and seldom
boys sound sleep. Towards the termination, he is
erally heard to mutter; and it is not unusual for
to be much affected with the night-mare, and
to attempt to walk in his sleep.

It has been the opinion of some writers, that con-
sumption is connected with, or has its origin in, a
diseased liver; and of others, that it is the effect of a
disordered state of the digestive organs. I never met
with a real consumptive case in which the liver ex-
hibited the least mark of disease; and, latterly, I have
the opportunity of examining the livers of several
patients, whose cases were pronounced true liver ones.
Torpor is the order of the day; and to obtain this,
medical men, in obscurity, have broached the most
absurd doctrines respecting disordered digestion*.

So much has been said, by medical men in extensive
practice, on hepatic derangement, as the source of many
cases, that even consumptive patients attribute their com-
plaint to bile. The following case I select from many others,
showing that medical men, of great experience, may be
wrong in their conjectures as to the seat of a disease; or rather
proving how blindly attached they are to their own opinions,
, instead of theorising on facts, they make facts bend to
their preconceived theories.

Case.—Mr. Foggatt, a wholesale perfumer, of Three King's
d-court, Lombard-street, in consequence of having been
in a declining state of health for some months, accompanied

In the advanced stage of pulmonary consumption the appetite is, in general, very good, and symptoms of indigestion rarely occur. The appearance of the *fæces*, also, give evident proof that there is no defect either in the liver or in the stomach; for they shew that the food is well digested, and that the secretion of bile is healthy.

TREATMENT.—This disease is generally considered as one of the chief opprobria of medicine; but my experience has taught me, that there is no disease in this

with cough, and pain in his loins, consulted several medical men of eminence, who all agreed in opinion, that his liver was diseased.—Not receiving any relief from their plans of treatment, he applied to me. He was then affected with great thirst, dryness of skin, general lassitude, and great emaciation. The secretion of urine exceeded six quarts a day. His appetite was good; and the pulse appeared to be at its natural standard. The warm-bath, and a diaphoretic medicine, were employed to produce a determination to the skin; but nothing succeeded to excite perspiration, the skin becoming dry and hot, almost immediately on being taken out of the water. The cough became more troublesome, and, a few days prior to his dissolution, a violent pain came on in the left side, which a large blister failed to relieve. I examined the body about eight hours after death. The left lung, and the *plura costalis* of the same side, exhibited no morbid appearance. There was considerable adhesion between the *pleura costalis* and *pleura pulmonalis* of the right side; and in the lowermost lobe of the lung there was an abscess, containing about two ounces of matter of a chocolate colour. On examining the abdominal viscera, the only disease that was detected was in the cellular substance, connecting the kidneys to the *vertebræ*, which was much thickened, and on being divided, there were partial collections of matter of a scrofulous appearance. The kidneys were not preternaturally flaccid, or the blood-vessels unusually distended. The liver was particularly healthy. It is remarkable that, although there existed so much disease in the right side, he only complained of pain in the left side, and that only till within thirty-six hours of his death.

country that comes under this appellation. Every disease, however, has its incurable stage—that is, when by neglect and mal-treatment the constitution has been suffered to give way, and when, through this circumstance, all hopes of restoration are destroyed. The stamina being thus undermined, no foundation is left to work upon.

The body requiring to be constantly recruited, these different organs, it must appear clear, are, for the most part, more or less in action; therefore, by allaying morbid irritation, and promoting the natural mutation, by exciting the action of the absorbent and purifying vessels, diseased structure will be removed, and health restored.

In the treatment of all diseases we must, therefore, be regulated by the constitution of the patient.—Disease is counteracted by health; and to produce it will, in different constitutions, require, in the same disease, different remedies. It is a morbid irritation that changes the mutating powers, either generally or locally; and that irritation may be the effect of phlogora, or increased ignition; or it may be the consequence of debility and relaxation, or diminished action.

The leading symptoms of pulmonary consumption are often brought on by morbid weakness, or what is termed a nervous state, or, in the language I have employed in my new system, sub-irritation, which should be increased by the treatment necessary for consumption from organic disease. In such a case, a diet, by increasing the nervous state, or diminished ignition of the system, would endanger the

life of the patient; and by abstinence in such situations, the lives of many patients are lost. It is in such cases that a generous diet and wine have been found to succeed. In local scrofulous affections, especially of the lungs, we must be guided by the *effects* of regimen. When such ulcers occur on the surface of the body, it is often found necessary to keep up the strength of the system, or preserve the vigour of the habit, in order to promote their healthy digestion; and, as a necessity for the same plan, it may be remarked, that in scrofulous consumption, whatever tends to render the body irritable will always aggravate the disease.

In directing the treatment of consumption in its first stage, it is of importance to ascertain, whether the state of the constitution is such as will favour the progress of the malady. If the sanguiferous system be over-loaded, or the general ignition, and particularly that of the lungs, run too high, it will be necessary to lessen this morbid state, by extracting blood; the most beneficial method of doing which is by cupping over the chest. By this operation both arterial and venous blood is extracted, and a degree of external irritation at the same time produced, that tends to relieve the internal disease; a little taken occasionally in this manner, not exceeding six ounces at a time, will be more beneficial than taking at once a larger quantity. The state of the intestinal canal should be next attended to, and cleared out by Epsom salts, in small doses, either dissolved in whey or almond emulsion, which is the form I have generally preferred. This should be occasionally repeated; for nothing

much aggravates the disease as costiveness*. In the first stage of the malady, a blister is indispensably necessary. If the super-irritation do not run high, one over the breast bone will be sufficient; but if the patient complain of pain in one or both sides, then a blister over the part or parts affected is preferable. The frequent repetition of this remedy is more beneficial than either seton or the perpetual blister †.

Another important auxiliary is, the promotion of the secretion of the skin, termed perspiration. By this measure we not only abate the increased ignition of the body, by producing a conducting surface; but the vessels of the lungs are also unloaded, by occasioning a determination of blood to the external parts. The medicines termed diaphoretic answer best when combined with a vegetable anodyne, which should be proportioned to the degree of irritation or cough. The following mixture I have found to answer this purpose best:—

Of golden sulphur of antimony, twenty grains; extract of white poppy, half a drachm.—Mix; and divide into ten pills, of which one may be taken three times a day, with three tablespoonfuls of the following mixture:

Of the aerated kali, two scruples; almond emulsion, six ounces.—
Rx.

If these medicines fail to produce perspiration in a sufficient degree, it will be proper to have recourse to

*Costiveness is generally a forerunner of the disease, and, in many cases, seems to have been the principal exciting cause.

†The irritation produced by the perpetual blister, by disturbing the cerebral system, often increases the general irritability of the body, and thus aggravates the affection of the lungs.

the warm-bath at about ninety-eight degrees. In the early stage of the disease, I have found this remedy so highly beneficial, that I regularly employ it, even where there is sufficient perspiration. Warm water to this degree acts as a fomentation, and promotes the general mutation of the body.

If the feverish symptoms of the body should run high, the following mixture, containing a proportion of acetated ceruse, may be employed with advantage, to allay the irritation of the system:—

Take of acetated ceruse, five grains*; simple oxymel, one ounce; ipecacuanha wine, one drachm; almond emulsion, seven ounces.—
Mix; two tablespoonfuls to be taken three times a day.

In attending consumptive patients, every practitioner has it strongly impressed upon him, by the patients, that if it were not for their cough they should soon be well. In such affections of the lungs, we should ascertain whether the cough bears a proportion to the quantity of mucus expectorated: if there be little expectoration, or if the cough be dry, there exists, with the organic disease, much morbid irritation of the internal lining of the trachea and bronchial ramifications. It is, in this case, of the greatest consequence to allay this morbid irritation, as the cough must tend to increase the organic mischief. With this view, I have found the fume of the compound stra-

* This is the most efficacious remedy I know, in allaying nervous irritation, which, in all forms of fever, is of great importance. It is more certain than the foxglove in quieting the circulation, and does not produce the depression of spirits, and general lassitude, which uniformly follow the use of this fashionable remedy.

monium herb of Mr. Fisher, to succeed remarkably well. Should female patients object to smoking, the vapour of a strong decoction of this composition may be inhaled with nearly the same success.

In many cases of consumption, I have found this remedy a powerful auxiliary *: but to render it efficacious, it is necessary to prepare the system for its use; for, in the first stage of the malady, it cannot be safely employed till the inflammatory diathesis is diminished, previously to which it will increase irritation, and consequently provoke cough.

Having, by these different means, allayed irritation, and suspended the disease of the lungs, by producing a state of system that will not favour its progress, or re-act upon it, our next step, in order to proceed with the curative intention, is to gently rouse the action of the absorbent vessels of the lungs, to remove accumulations of lymph in their substance; when we may expect the regular mutation to go on, and the deranged structure, of course, to be repaired. The only medicine capable of doing this is mercury; but, in the employment of it, great caution is necessary; for if the system be not in a quiet state, and particularly the

* The inhaling of medicated vapours is an old practice, particularly of the resinous gums, which were employed with the view of producing healthy digestion of the ulcerations; but as the ulcerated surfaces of the broken vomicæ are not exposed to the action of the air, as the practitioners who suggested the remedies supposed, they cannot succeed in producing such a desirable effect. In a case of pulmonary consumption, apparently in the last stage, the inhaling of the fume of the stramonium, as recommended by Mr. Fisher, was attended with the most decisive advantage.

local affection, it may aggravate the mischief. Hence, the effects of this medicine should be watched; for the intention is only to rouse slightly the action of the absorbent vessels, and not to excite what is termed mercurial fever, or to disturb the general health. Different constitutions, it is well known, are differently affected by this medicine. It often happens that, in the smallest dose, it disagrees with the stomach and bowels. In the latter case, I have recommended it to be introduced by the skin, as recommended page 48. If the stomach will allow of the internal use of calomel, it may be combined with the precipitated sulphur of antimony, and carbonated kali, as above prescribed, made into a pill, with the extract of poppies, in the proportion of half a grain to each pill.

When the system is quieted by the foregoing remedies, an emetic of ipecacuanha I have found very beneficial. Its operation gives relief by occasioning an increased determination to the surface; and by the compression the lungs undergo during vomiting, from the action of the diaphragm, &c. the absorbent vessels are roused into action.

The diet should be such as tends to keep the system in a quiet state. Spirituous and vinous liquors should be strictly prohibited, as well as animal food in a solid form; but as patients are differently affected by diet, it is impossible to lay down one general and uniform rule of proceeding. Some patients are rendered more irritable by low diet, and the symptoms of the disease are thus, of course, aggravated by it, even in its first stage. Hence it will be necessary with such patients,

to allow both animal food and malt liquor; but, in general, the use of light food is the rule to go by; and the vegetable jellies, made from arrow root, tapioca, sago, oatmeal, as well as light puddings, chiefly of bread, may be used according to the taste and inclination of the patient. Where animal food becomes unavoidable, it will be best in the most soluble form, as soups and jellies, and should also, if solid, be of the lightest kind, as fowl, white fish, &c.; but such indulgence is to be only given under the circumstances I have mentioned. It is often absolutely necessary to counteract the debility attendant on the last stage; and if the patient be deprived of animal food, he will sink in a most rapid manner, and thereby lose the chance of a favourable mutation of the lungs. To this may be added another strong objection against an entire vegetable diet, that the quantity requisite for the support of the system is so great as to distend the stomach in a high degree, and, by this distension, confining the situation of the lungs, the breathing becomes impeded and oppressed; and thus the symptoms of the disease are aggravated. Even when animal jellies are used, I have found them not to digest so readily in many stomachs as light solid food.

Along with the consideration of diet, that of dress is not to be omitted;—the patient should, from the first attack, be covered with flannel, which, when worn next the skin, will keep up sufficient secretion of perspirable matter, and prevent the patient feeling the injurious effects which sudden transitions (a circumstance always to be avoided with consumptive patients) are apt to produce. The highest parts of

the house will be the most eligible residence, and particularly for sleeping. These regulations, carefully observed, will suspend the diseased action, and render the life of the patient comfortable.

Exercise in this disease should be chiefly of the passive kind. Hence the advantage which has been derived from riding on horseback, and from a sea voyage; but the former is often too violent, and, in that case, is injurious. The exercise of digging in gardens is much recommended by some writers, and said to be the great specific of the celebrated Dr. Pitcairn. But the exercise of digging is certainly too great; and the moist exhalations that attend it must be no less injurious. Swinging is an exercise very beneficial in this disease, and is similar to sailing, though exempt from many of the inconveniences which attend the latter. When the chest is by deformity contracted, which is often the case with consumptive patients, the use of the dumb bells has been recommended, with the view of opening or widening it, as it is termed: but the capacity of the chest being adapted to that of the lungs, no advantage could arise from it, even were it possible to expand the chest; while the exercise thereby produced, by hastening the circulation through the lungs, is apt to do mischief; and, in some cases, I have known spitting of blood to follow it in an alarming degree. Such exercise can be only useful when the person is young, and, at the same time, free from any attacks of the disease.

Sudden transitions, I have already stated, are highly injurious to consumptive patients; and when the

patient passes from a cool air to a heated room, the approach should be made gradually, for the lungs are then more susceptible of the stimulus of heat.

Air is a subject on which much has been said, with respect to its influence in affections of the lungs, and a particular prejudice exists against the air of great cities. In the first stage of the malady, if the air possess no stimulating property, it is of little consequence; but, after suppuration has taken place, it is of the first importance to make a salutary change, from a crowded and confined situation to a salubrious spot, where the air is fresh, and "health is wafted on every breeze." The air is generally in a constant state of rapid motion; and the air of large places is, therefore, soon changed. The air of Devonshire, in consequence of being sheltered from the baneful influence of the east, is comparatively mild, and the ground healthy. Others prefer a situation by the sea-side; in autumn this is often serviceable: and in winter the neighbourhood of the sea, in Devonshire more especially, affords a milder and more steady temperature, than any other situation in this country.

Patients in the last stage of this disease are sometimes free from the most unfavourable symptoms, as swelling of the legs, &c. while others, whose lungs have not sustained any considerable mischief, exhibit a train of the most discouraging appearances. We cannot, therefore, determine the extent to which the disease of the lungs has arrived, merely from external observation. It is too common for medical men on the first sight of such a patient, to declare his condition incurable, and consign him to a mere palliative

treatment; but, in all cases, I would strongly advise that an effort should be attempted for a recovery, particularly as the remedies will not aggravate his sufferings, even should they not succeed. I have met with many patients whose cases appeared, at the time, hopeless, yet, to my astonishment, by the treatment suggested, were, in the end, happily restored to health.

In consumption, as in some other diseases, it is not unfrequent, that on relieving the affection of the lungs, the same diseased action takes place in some other part of the body; and, in proportion as the original affection declines, this new disease increases. Such new attacks, if not in a situation to endanger life, should not be checked by repellants. I have known several instances of pulmonary consumption to terminate in swellings of the knee and elbow joints.

Even after the disease is apparently cured, and all morbid action suspended, the patient is not to be considered out of the hands of the practitioner. The state of body which favours its recurrence, is still to be further corrected; and for this purpose an issue is the most effectual remedy, which, with the occasional use of the Epsom salt, will keep down that fulness and inflammatory state, which favour the attack of the malady. These, with a low diet, will, in the course of two or three years, entirely destroy the predisposition existing in the habit.

Erysipelatous Pulmonary Consumption.

This species consists in an erysipelatous* inflamma-

* For the nature of this species of inflammation—see St. Anthony's Fire.

tion of the internal membrane of the windpipe and bronchial ramifications. By an erysipelatous constitution, I mean a state of system in which superficial inflammation is readily excited, through a preternatural saline state of the blood. Whatever produces a determination to the lungs, in such a habit, or irritation in the mucous membrane of the windpipe and its branches, will put the disease into action; hence catarrh, in this constitution, is a very frequent forerunner of pulmonary consumption.

In the attack of this species of consumption, the cough generally commences with slight hoarseness, a tickling sensation in the windpipe, and an expectoration of a thin frothy mucus of a saltish taste. The inflamed parts at length becomes slightly excoriated or ulcerated, when the mucus exhibits a puriform appearance, and is sometimes tinged with blood; in this state the expectorated matter is generally of a sweetish taste. In the progress of the disease the patient is seldom attacked with pains in the chest, and can even expand the lungs to their full extent. If the system be in a plethoric state, these symptoms will be preceded by more or less fever. The hectic state does not make its appearance in this species till the system has considerably given way, and the patient become much emaciated, and sometimes not till within a week of dissolution. This disease is readily distinguished from the scrofulous species: the latter commencing, from the first moment of attack, with confined breathing, followed by a dry cough; while the former is attended with a free and undiminished state of respiration, and is peculiarly marked also by the saltish expectoration.

On opening the bodies of those who fall victims to this species of consumption, the lungs do not collapse, in consequence of the cellular substance being loaded with serum, and the air-cells and bronchial ramifications with mucus. From this circumstance of the substance of the lungs being entire, an objection may, perhaps, be made to ranking this complaint under the term of consumption of the lungs, which signifies, properly, a wasting, or corruption, of the lungs. But, as the body is reduced to an emaciated state, in consequence of the pulmonary affection, there can be no impropriety in assigning to it this appellation, and classing it under this form of disease.

In regard to the particular treatment of this species, it may, in general, be cured by the treatment recommended for catarrh. In whatever stage it comes under the care of the practitioner, his first attention must be paid to the state of the constitution, regarding it as the criterion; if the vitality run high, or the sanguiferous system be overloaded, the loss of eight or twelve ounces of blood, either from the arm or by cupping, will be a proper commencement of the cure. This operation may be succeeded by emptying the intestinal canal, either by a dose of castor oil or jalap; while the irritation of the lungs will be greatly subdued by the following medicine :—

Take of precipitated sulphur of antimony, ten grains; of white poppies, twenty-five grains.—Mix; and divide into ten pills, of which one may be taken three times a day, with three tablespoonfuls of the following mixture :

Take of balsam of copaiva, one drachm; mucilage of gum arabic, two ounces; almond emulsion, six ounces; aerated kali, half a drachm.—Mix.

If these medicines should fail to allay the cough, and otherwise to quiet the system, the following form may be substituted :—

Take of ipecacuanha wine, one drachm; gum arabic powder, three drachms; almond emulsion, six ounces; liquid laudanum, twenty-five grains.—Mix; three tablespoonfuls to be taken three times a day.

If, notwithstanding these remedies, the cough and irritation should continue to run high, inhaling the vapour of a strong decoction of hemlock will prove beneficial; but the fume of stramonium is, in this form of the malady, evidently hurtful.

When the system is free from fever, tar-water may be taken with great advantage; but when the vitality runs high, and strong inflammatory symptoms are present, this as well as the balsam copaivi are found to be manifestly hurtful. If the balsam copaivi should fail sufficiently to correct the erysipelatous disposition of habit, then recourse may be had to mercury in the form of calomel, a grain of which may be administered every night; and if the expectoration (as often happens during the time of recovery) should be difficult, a drachm of gum ammoniac may be added to the mixture of balsam copaivi.

It very rarely happens that either blisters or the warm-bath are in this disease necessary; but they are indicated, if either pain of the chest or tightness of breathing take place; and particularly the latter, if a sufficient degree of perspiration be not kept up.

A drain, either by an issue or seton, is also unnecessary.

The observations already made, pages 259-60, on dress

and exercise, apply with equal propriety to this species.

Pulmonary Consumption of Age.

This form of consumption is the consequence of some chronic affection of the lungs. It is frequently the sequel of asthma, constitutional cough, and dyspnœa of long standing. This disease is always very slow in its progress; and it frequently happens, that if the patient pass through the period of winter*, the spring suspends the complaint, and restores him nearly to a state of health, although it has been attended with the most unfavourable symptoms. The cough attendant on this malady is regular in its recurrence, and is always accompanied with a proportionate expectoration of mucus, which is sometimes frothy, and easily brought up, and at other times is opake and tenacious, and requires great exertion to discharge it. There is very rarely any pain in the chest, and no hectic fever, till within a few days of death, when the mucus changes to a brown appearance, and emits a cadaverous odour. This disease, being the consequence of a previous affection of the lungs, is accompanied with much general debility. The skin is particularly pale and flaccid, and the extremities œdematous; and there often prevails, in a greater or less degree, symptoms of that affection termed pectoral angina. As the disease advances, the breathing often becomes so laborious, as to require the action of

* The cough, in consequence of its recurring in the winter season, has been by some writers named the winter cough; but as it also occurs during very hot weather, the name is improper.

all the muscles of the chest to perform respiration; and the expectoration is also so difficult, as to be effected chiefly by the strong action of the diaphragm, exerted so as nearly to amount to vomiting. As the expectorating powers gradually diminish, and towards the close, the patient is distressingly oppressed by the collection of mucus in the bronchial ramifications. On opening the chest, the lungs in this disease but slightly collapse; and their external surface exhibits a blueish mottled appearance, bearing slight marks of œdema. The bronchiæ are loaded with mucus; and the capacity of the pulmonary artery I have always found more or less enlarged, and its ramifications greatly distended with blood. Beneath the pleura pulmonalis there is a collection of very small, hard, dark-coloured tubercles; and the nutrient vessels are partially ossified*. There is, also, an effusion of serum in the cavity of the chest and pericardium.

In the treatment of this disease, although it be not attended with increased vitality, yet it is often necessary to extract blood from the system of veins; for, in

* Ossification of internal arteries of the chest is so common an occurrence in elderly people, that, in every subject I have opened, above the age of fifty-five, this process had taken place. The most extraordinary case of extensive ossification of arteries I ever met with, or heard of, was that of the late General Bisset, of Great Pulteney-street. In the arterial system of this gentleman, there was scarcely an artery of any consequence that was not, more or less, ossified. Independently of those of the chest, the arteries of the extremities might, by it, be traced by the touch to their sub-divisions, particularly those of the arms. In the last year of his life he suffered little from irritation in the lungs, and seemed gradually to sink from languid circulation, in consequence of the extensive ossification of arteries.

elderly people, this class of vessels is often so much over-loaded, as materially to oppress the vital powers. Hence, though in such a situation the patient may appear much weakened, yet the loss of a small quantity of blood from a vein seems to take off a load from the springs of life, and to allow the action of the system to go on with fresh vigour. Thus an accession of strength is actually gained; and the advantage thus derived should be preserved, by joining with an expectorant medicine a proportion of iron, as in the following form:—

Take of alkaline tincture of iron, one scruple; gum ammoniac emulsion, seven ounces; paregoric elixir, half an ounce.—Mix. Two large spoonfuls to be taken three times a day.

But should the patient be very much reduced, so that the above tonic is not sufficiently powerful, the following mixture may be preferred:—

Take of infusion of rhatany root, six ounces: oxymel of squills, six drachms; muriated tincture of iron, half a drachm; paregoric elixir, six drachms.—Mix. To be taken in the same manner as the preceding.

These medicines will prove highly useful in promoting expectoration, and, at the same time, in counter-acting debility; but should the expectoration be of a saltish taste, and shew an over-saline state of the blood, the following mixture will succeed best:—

Take of Canada balsam, two drachms: mucilage of gum arabic, two drachms; prepared ammonia, fifteen grains; paregoric elixir, six drachms; tincture of squill, three drachms; distilled water, eight ounces.—Mix. Two large tablespoonfuls to be taken three times a day.

When the legs swell, blistering plasters may be applied to the extremities; but they should not be con-

tinued longer than six hours, and the part should afterwards be covered with cabbage leaves, previously softened by steeping them in boiling water for about half a minute. The discharge of serum from the parts never fails to afford great relief. Blisters may here be objected to, as tending to induce mortification; but I never knew an instance of it, when proper precautions were taken not to allow the blistering plaster to continue on the parts too long.

The inhaling of the fume of stramonium is attended with no good effect in this disease. In cases of constitutional cough, before the system has given way, or symptoms of actual consumption appear, it is a valuable remedy. Laudanum is uniformly hurtful, by checking expectoration. The foxglove, by diminishing the vital powers, is, in the advanced state of the disease, a dangerous remedy; and, in many instances, it has occasioned sudden death.

The diet should be light and nutritious; for at the period of life in which it occurs the system is not so easily nourished as at an earlier age. When paucity of urine takes place, a beverage of weak gin and water will be the best.

OF CORNS.

Corns consist in a hard thickening of the skin, in consequence of pressure.

TREATMENT.—The callous inorganic substance, after having been immersed in warm water for about half an hour, should be pared off by a sharp knife, and the

part afterwards defended with the Plaster, No. 109, or the Diachylon Plaster, No. 58. The occasional cause should be avoided, by wearing loose shoes. When the corn is situated at the bottom of the foot, its recurrence may be prevented (after its removal as above directed), by the use of the horse-hair socks, the elasticity of which will obviate the effect of pressure and pain in walking.

Plasters of verdigris and the red precipitate of mercury have been much recommended for the removal of corns, and for alleviating their pain. From their caustic property, they may have a good effect ; but from this quality they may also irritate and aggravate the pain. The benefit of plasters is often more the effect of the soft leather on which they are spread, than any medicinal virtue they possess ; hence, putting on three plasters, one above the other, the lowermost having a hole in its centre to let the top of the corn through, by taking off the pressure of the shoe, has been found highly beneficial.

Diachylon plaster, spread on leather (about the size of half-a-crown), applied on the upper part of the foot, about an inch or half from the corn, is esteemed a sovereign remedy by Admiral Henry ; who, having received essential benefit from it, has, from motives of humanity, requested its recommendation in this work,

OF COSTIVENESS.

The effects of costiveness are head-ach, giddiness, disagreeable taste in the mouth, a disrelish of food, and sometimes the piles.

CAUSES.—It is generally the effect of a sedentary life, deficient secretion or inertness of the bile, the use of port wine, a redundancy of slime, acidity in the stomach or bowels, or a spasmodic constriction of the intestines.

TREATMENT.—The alterative doses of the aperient salts, No. 2, taken every morning in whey, will succeed in obviating costiveness much better than rhubarb, which, after its operation, is very apt to leave a disposition to the disease. When the intestines are overloaded with slime, which is not unfrequently the case, three or four grains of calomel may be taken every third night, or a fortnight; and three drachms of the Epsom salt, No. 2, the following mornings. In females of sluggish constitutions, costiveness is a common attendant on retention or suppression of the menses, when the ecphrastic pill of the Edinburgh Pharmacopœia is the best remedy. (See *Treatment of Green Sickness*.) In case of much pain in the bowels, the operation of these medicines should be promoted by the use of the Laxative Clyster, No. 97.

When costiveness is attended with acidity in the stomach, the prepared natron dissolved in water, and taken as directed, page 68, will prove an effectual remedy; and the use of the tincture of camomile and ginger (see No. 7), a vegetable diet and moderate exercise, will prevent its recurrence. Costiveness produced by the use of lead, to which painters are particularly subject, requires an active medicine, such as the compound colic pill, with calomel; (see Cathartic Pills, No. 84). A stimulating clyster of aloes and salt is also necessary. (See Colic.) When costiveness is accompanied with

piles, the flowers of sulphur, or the electuary for piles, No. 85, will answer best.

In scrofulous subjects, and young women about the age of fifteen, costiveness is often productive of serious mischief, such as consumption of the lungs, green sickness, &c. People disposed to apoplexy are very subject to costiveness, in consequence of slight compression of the brain from distension of blood-vessels; this state of bowels favouring plethora, should be in them particularly guarded against.

OF COUGH.

When a cough occurs in a scrofulous subject, or a person of consumptive habit, or born of consumptive parents, or at the consumptive period of life, it requires more attention than the patient is generally willing to allow. A blister to the breast bone, the loss of blood from the arm, the occasional use of the Aperient Mixture, No. 62, the Cough Mixture, No. 66, low diet, and the use of flannel next the skin, are all indispensably necessary to prevent organic mischief, or pulmonary consumption—a very common termination of neglected cough.

For the chronic or habitual cough to which many people are more or less subject every winter, attended with shortness of breath, wheezing, and an expectoration of viscid phlegm, without pains in the chest or fever, the following mixture will prove very beneficial, in the dose of two tablespoonfuls about every four hours:—

Take of the emulsion of gum ammoniac, six ounces; tincture of squills, three drachms; spirit of hartshorn, two drachms; paregoric elixir, six drachms; purified honey, half an ounce.—Mix.

The squill lozenge is also a very excellent medicine. When the cough is attended with swelling of the legs, paucity of urine, and great difficulty of breathing on lying down, three or four grains of the oxy-phosphate of steel, made into a pill with a little honey, should also be taken twice a day. See treatment of Sub-irritative asthma.

There is an habitual cough very prevalent, to which some people are more or less subject every winter, arising from sub-irritation of the membrane lining the windpipe and its ramifications, and a loaded state of the substance of the lungs from an effusion of serum preventing their due expansion, often attended with swelling of the legs and a deficiency in the secretion of urine. This cough approaches to the nature of asthma, but the patient is free from the asthmatic paroxysm. The following medicine I have found very beneficial in this species of cough:—

Take of ethereal tincture of steel, three drachms; tincture of squills, five drachms; emulsion of gum ammoniac, seven ounces.—Mix; from two to three tablespoonfuls to be taken two or three times a day in a wineglassful of horehound tea.

A pill composed of three grains of extract of poppies, and one of ipecacuan powder, may also be taken every night.

The treatment of the advanced stage of sub-irritative asthma (see page 203) is applicable to this species of cough.

It is sometimes difficult to ascertain whether the loaded state of the lungs be the consequence of effusion of serum in the cellular substance of the lungs, or an over-

distended state of the blood-vessels; in the latter case, the ethereal tincture of steel, &c. would be productive of serious mischief. If the patient be free from fever, of a palid countenance, and the ancles swell in the evening, there can be no doubt but that the oppression of the chest arises from weakness or an effusion of serum.

For the cough of infants, a gentle emetic of ipecacuan powder, administered every twenty-four hours, generally affords very considerable relief, and will often speedily cure it. If attended with great difficulty of breathing, or pain on coughing, a blister, or Burgundy pitch plaster, should also be applied between the shoulders, or over the breast bone, and a teaspoonful of a linctus of equal parts of almond oil and syrup of white poppies, given three or four times a day. The almond emulsion is a very pleasant and excellent drink for children affected with cough;—it not only quiets the system, and allays irritation in the lungs, but is so nutritious that if a child drink plentifully of it, it will require but little besides.

When cough is a symptom of pleurisy and inflammation of the lungs, it is attended with fever, and acute pains in the chest. See Pleurisy and Inflammation of the Lungs.

Cough is also symptomatic of dropsy of the chest, when it is attended with general debility of the system, often swelling of the legs, especially towards night, great difficulty of breathing, and a sense of suffocation in an horizontal position. See Dropsy of the Chest.

Cough being a symptom of such *opposite* affections of the lungs, the danger of a *general* remedy must appear obvious. Popular cough medicines being composed of

paregoric elixir, tincture of tolu, gum benzoin, &c. sold under fictitious names, as the essence or balsam of horehound, coltsfoot, &c. are serious impositions on the public: their stimulating properties having, no doubt, often produced inflammation of tubercles, and thus occasioned fatal consumption. In simple catarrh they will produce pleurisy or inflammation of the lungs, which, by terminating in suppuration, may destroy the life of the patient: and even in *chronic* cough they are often hurtful, by checking expectoration. The open manner in which this traffic is carried on in this country, reflects disgrace on the medical police of the metropolis, and demands the interference of the legislature.

Cough, it must therefore be remembered, is not only the effect of obstructed perspiration, but proceeds from various other causes, particularly in children, such as teething, bowel complaints, fever, &c. and is a recurring symptom in delicate habits. Although recent cough is generally considered a very trifling affection, every person acquainted with the delicate structure of the lungs must allow that great judgment is requisite to regulate its treatment. More people die in this country of cough than of any other disease, which in the commencement might have been readily cured by the most simple medicine. Spitting of blood and consumption of the lungs are generally the consequences of neglected or ill-treated coughs. Scarcely any disorder alarms the mind of a medical man more than cough, when affected by it himself; and hence, by attending to it on its *first attack*, medical men very rarely die of diseased lungs.

OF COW-POX.

This disease was first introduced by Dr. Jenner as a preventive of small-pox contagion.

The matter for inoculation should be taken in an early state of the pustule, generally about the fourth or fifth day after the inoculation, by puncturing the skin of the pustule with a lancet, and collecting thereon the *clear limpid* matter that exudes, with which the arm of the person to be infected should be so slightly scratched as scarcely to draw blood. On the third or fourth day the part will appear a little red and prominent, which will keep increasing to about the ninth or tenth day, when the constitution will be infected, the signs of which are a slight fever, and a little enlargement of the glands in the pit of the inoculated arm. The part should be defended from the friction of the linen by applying a little gold-beater's skin; and if the surrounding inflammation should run high, the application of the lotion of Goulard's extract, No. 30, will be proper.

From inattention to these particulars it has been suspected that the reports of the small-pox succeeding the cow-pox inoculation have arisen; for unless the matter be *genuine*, and the *constitution be infected*, the person cannot be secured against the small-pox contagion. It may happen that the inflammation excited by the inoculation with genuine cow-pox matter may remain local, *i. e.* the inflammation may go on so as to form a pustule, without any portion of the matter entering the system, when, of course, the subject must

remain liable to small-pox infection. The same may occur from the small-pox matter, cases of which are by no means uncommon.

Cow-pox, like all other discoveries in medicine, has met with the opposition of those professional characters who, from motives of lucre and jealousy, act as enemies to their own species. The contest between its interested friends and enemies has been carried on with such heat and illiberality, that the assertions of either party are unworthy of notice. In consequence of the late recommendation of the cow-pox by the legislature, I resolved to embrace every opportunity to put it to the test of experience. For this purpose, I inoculated with small-pox matter about thirty children whom I had vaccinated within the last ten years, the whole of whom resisted it. The result of these and other experiments has induced me to recommend vaccination.

It has been said by the interested opponents of vaccination, that it is often succeeded by a cutaneous eruption resembling the itch; but further experience has most satisfactorily proved the assertion to be erroneous.

OF CRAMP, OR SPASM.

When cramp attacks the stomach, it is generally the effect of flatulence, and often precedes or attends a fit of the gout. When it is the effect of indigestion, it may be relieved by a small teaspoonful of the Spirit of Sal Volatile, No. 13, in half a wineglassful of water, to which a teaspoonful of ether may be added if the pa-

tient be of a gouty habit, or the spasm be obstinate. The Stomachic Mixture, No. 61, and the Gout Mixture, No. 69, may afterwards be employed with great advantage to prevent a recurrence, and should be persisted in as long as the patient is troubled with any symptom of indigestion. The Jamaica ginger powder generally succeeds in gouty cases better than any other stimulant. (See Gout and Indigestion.) If the spasm be so violent as to resist the use of ether and sal volatile, from twenty to thirty drops of liquid laudanum may be added. A draught of warm water often affords immediate relief, particularly when the spasm precedes or occurs at the period of menstruation.

People subject to cramp in the stomach should wear flannel next the skin, and avoid taking fermented liquors and green vegetables, particularly for supper. (See Indigestion and Sassafras Cocoa, p. 100.)

Cramp in the lower extremities is a very common attendant on the latter stage of pregnancy, in consequence of the pressure of the womb on the nerves leading to them, and particularly during labour, from the pressure of the head of the child. In either of these cases, it may be relieved by compressing the part affected with the hand, and sometimes by change of position, and by rubbing the part with dry flannel, or a flesh-brush. In obstinate cases, the application of ether and laudanum over the part affected is recommended, and is certainly worth a trial. When it occurs during pregnancy, the internal use of laudanum and ether, as directed, No. 31 and 14, will be proper. In all cases, the patient should avoid costiveness, by taking occasionally a little lenitive electuary, and

should observe as much as possible a horizontal position. Cramp of the extremities may sometimes be speedily relieved by putting the *opposite* muscles into action: thus, when any of the muscles of the calf of the leg are affected, by putting those on the front into action, which is done by drawing up the foot, the cramp will often instantaneously go off.

For the cure of cramp a variety of whimsical remedies are in great repute among the lower order of people, which being in themselves perfectly inefficacious, must depend on the imagination for success. Whatever affects the mind with surprise or horror, as the cracking of a roll of brimstone held in a warm hand, the wearing of rings formed of the nails or furniture of old coffins, and such-like fanciful conceits, have certainly a wonderful effect on all spasmodic diseases.

OF CROUP.

This disease consists in a violent inflammation of the membrane lining the windpipe: it is principally incident to children, and rarely occurs till after weaning. It is most prevalent in low marshy countries, on the sea coast, and in wet and cold seasons. It seems to be peculiar to some families, and after one attack the patient is very liable to a return on the slightest exposure to cold.

SYMPTOMS.—It commences with an obtuse pain about the upper part of the windpipe, which is increased on being pressed: The respiration is difficult, attended with wheezing, and a *peculiar* ringing or

stridulous cough, resembling the crowing of a *young* cock, and a trifling expectoration of mucous matter. The face is somewhat livid and often much flushed, and the swallowing little affected; there is also some degree of frequency and hardness of the pulse, great thirst, restlessness, and feverish heat. The wheezing and difficulty of breathing are increased by coagulated lymph, or sloughing of the membranous lining of the windpipe, which sometimes stops up the passage, so as to produce sudden death.

CAUSES.—It is occasioned by the application of cold combined with a moist atmosphere, particularly in the spring and winter seasons.

TREATMENT.—Both from the situation and acute nature of this disease, *immediate* and *active* remedies are requisite to save the life of the patient; the chief of which are bleeding and blistering. On the *first* attack of the disease, six leeches should be applied over the windpipe, and a blister to the nape of the neck, and also *over the windpipe*, as soon as the bleeding from the orifices made by the leeches will admit of it. If the pulse be strong, or the fever run high, the loss of blood from the arm will likewise be necessary. A dose of Emetic Tartar, No. 35, should also be exhibited without delay; and if it should not operate on the bowels, a dose of the Basilic Powder, No. 36, or Jalap and Calomel, No. 27, may be given an hour after the operation of the emetic. The child may likewise be put often to breathe over the vapours of warm water and vinegar, provided it do not provoke coughing. If the skin should continue *dry* and *hot*, five drops of the antimonial wine may be given every

three or four hours, with the Saline Mixture, No. 78; and in case these should fail of producing perspiration, the warm-bath should be employed. The tincture of Foxglove, in the dose of six or eight drops twice or thrice a day, has in some instances been found very beneficial. The discharge of the blisters should be kept up by dressing them with the weak mercurial ointment. This application, after the removal of the dead skin of the blister, has in so many instances produced such immediate relief, that I have been disposed to attribute the recovery of the children principally to it. The acetated ceruse, as directed for whooping-cough, is also a very valuable medicine in this disease.

The child may be supported with fresh milk, mixed with almond emulsion, or linseed tea, of which, in consequence of its thirst, it will take a sufficient quantity to support it. After the termination of the disease, the decoction of bark with liquorice will be necessary to prevent a relapse. Change of situation to a more light and dry air will also be advisable.

This disease sometimes attacks adults, when the same remedies to a greater extent are necessary.

DISTINCTION.—Croup may be distinguished from inflammation of the throat by the *peculiar shrill ringing sound* of the voice, and by the breathing being attended with a wheezing noise. The swallowing is also in general perfectly free, whereas in inflammation of the throat it is difficult.

Two species of croup are noticed by medical writers, the one depending on *inflammation* of the inner coat of the windpipe, termed inflammatory croup, which is described above; the other from *spasms*, unattended with

inflammation, termed *spasmodic croup*;—the latter species is of the nature of asthma, and comes on in the night-time. It often intermits, and in the intervals both the respiration and cough, if any exist, are free from the *characteristic* sound of the inflammatory croup. In the early stage of this disease, medicine has in general a very salutary effect; but if it be suffered to continue long, it will prove very difficult to relieve or cure. The most efficacious remedies in this species are emetics of ipecacuan powder, repeated every day, and the anti-spasmodic medicines recommended for asthma, which should be persevered in till the *croaking noise* has *entirely* left the patient. (See Asthma.)

OF CUTS.

The edges of an incised wound, termed a cut, if no foreign matter be left in it, should be brought into contact as soon as possible, and kept so by means of long strips of the diachylon plaster, spread on linen or leather, over which a dressing of brown cerate and a bandage should be applied. These dressings should not be removed for at least three days, when a repetition of them will, in a few days more, effect a cure. If much inflammation or pain should come on, the use of the Lotion, No. 102, and the Aperient Mixture, No. 62, will be necessary. The traumatic balsam, commonly called Friar's Balsam, is a very common, but improper, application for fresh cuts: the hot resinous gums of which it is composed being separated on

mixing with the blood, they occasion ulceration by preventing the union of the sides of the wound. Such stimulants should therefore never be employed, however trifling the accident may be, as their irritating quality may be productive of considerable mischief, particularly in an inflammatory or irritable habit.

In very superficial cuts it is a common practice to apply the court plaster, which, by keeping the edges together, and defending them from the air, often succeeds: in all cases, however, the gold-beater's skin, or the diachylon plaster, spread on black silk or leather, will answer best.

OF DEAFNESS.

The causes of deafness are numerous. It is often produced by an accumulation or hardness of the secretion of the ear, termed wax; in which case the ears could be syringed every morning with warm soap and water till the obstruction be removed, and a little wool or cotton moistened with two or three drops of camphorated oil of almonds afterwards introduced. When deafness arises from *decay*, or palsy of the auditory nerve, electric sparks, and a blister behind the ear, and the use of the herb snuff recommended for head-ach, are the most powerful remedies. It will also be proper to improve the general health of the system, by the use of medicines calculated to promote digestion and give energy to the nervous system, and the following mixture:—

Take of the infusion of rhatany root, six ounces; volatile tincture of valerian, half an ounce; compound spirit of lavender, three drachms.
—Mix.

Of which three tablespoonfuls may be taken three times a day. Washing the head with *cold* water every morning will also prove very beneficial; for this purpose the head should be shaved.

When deafness is attended with ulceration of the internal part of the ear, which is known by a discharge of matter, the ulcer should be healed as soon as possible, by syringing the ear every morning and evening with the following lotion made a little warm :—

Take of the tincture of myrrh, one drachm; Egyptian honey, two drachms; pure water, eight ounces.—Mix.

This diseased state of the ear, in which the tympanum is more or less injured, frequently follows the scarlet fever, and is generally very difficult to cure, in consequence of a portion of the tympanum being destroyed, or the surrounding bone of the skull being carious. When deafness is occasioned by obstruction in the *Eustachian tube*, preventing the passage of air into the internal ear, the tube should be syringed with warm soap and water. When the cavity of this tube is obliterated by disease, which is not an unfrequent cause of deafness, it has been proposed to admit air into the internal cavity, by puncturing the *membrane* termed the *tympanum*, which has in some instances succeeded. This operation is very simple, and attended with no pain.

A temporary deafness is often produced by slight cold, particularly in children, which frequently goes away in a day or two after the use of a little aperient and sudorific medicine, and avoiding the occasional cause.

Deafness is frequently the consequence of a deficiency of the secretion of wax; when a liniment that will at the same time soften the wax and gently stimulate the part will afford considerable relief, if it entirely remove the cause; such as the following:

Mix. Two of oil of turpentine, two drachms; oil of almonds, six drachms.—Two or three drops to be dropped into the ear, or applied by means of a little lamb's wool.

It is scarcely necessary to observe, that the ear is a tender organ, and when affected with disease, requires very delicate management. Deafness arising from such opposite causes, it must appear to the most ignorant, that the stimulating medicines of quacks, so industriously advertised as a general remedy for deafness, must often be productive of serious consequences. I have known many instances of the use of a quack medicine having entirely destroyed the important sense of hearing.

OF DIABETES.

This disease consists in an increased discharge of urine, equal to, and sometimes exceeding in weight, the quantity of aliment taken by the patient*, both liquid and solid.

* In consequence of the urine having been found to exceed the quantity of food and liquids taken by the patient, some medical men have been led to suppose that the skin, instead of perspiring, absorbs humidity from the air. It is, I think, much more probable that the water is formed in the system by the union of inflammable and vital gas (the constituent parts of water), particularly as people afflicted with diabetes are so much troubled with inflammable gas. This generation of gas, I believe, often takes place in the lungs, and is a frequent cause of asthmatic difficulty of breathing. When the body is exhausted of its watery particles, the cuticle, no doubt, to some degree, possesses a bibulous quality.

SYMPTOMS.—The first symptom of this disease is, the increased discharge of urine, in consequence of morbid irritation of the vessels of the kidneys which perform its secretion. This excessive discharge, by draining the body of its serum or water, renders the surface dry, and produces great thirst. (See Urine and Perspiration in the introduction to the first part of this work.) The urine, on becoming excessive, contains a sugary matter, and often emits an odour resembling that of violets. The stomach is sooner or later affected, and a thirst and voraciousness of appetite succeed, which will often scarcely admit of being satisfied: with these symptoms there is generally a slight degree of fever present; and as the disease advances, the emaciation and debility of the body gradually increase, attended more or less with sub-irritative fever.

CAUSES.—This disease by some late writers is attributed to a morbid secretion of the gastric juice, the direct effects of which they suppose to be the formation of saccharine matter, with a certain defect of assimilation, preventing the healthy combinations, and exciting the immediate separation of the imperfectly formed chyle by the kidneys*. But as the stomach is seldom deranged till the diseased secretion of the urine has existed some time, it is more probable that the affection of the stomach is the effect and not the cause of the disorder; besides, if an increased action of the

* Dr. Trotter observes, that the majority of persons he has known afflicted with this disease were lovers of the bottle. "I suspect (says this author) that many drunkards have this complaint without taking notice of it, and that it comes and goes without creating alarm, just as they happen to live regular or otherwise.

digestive organs were the cause, one would expect, when the stomach, with the whole system, is debilitated, the quantity of urine would be diminished; but so far from this being the case, the quantity of urine increases with the debility of the body. The immediate cause of the disease is a *deranged* action of the secreting vessels of the kidneys, by which the blood is disposed to new combinations, the effect of which is, the production of sugary matter. The kidneys, on dissection, are found preternaturally enlarged and flaccid.

TREATMENT.—Dr. Rollo, supposing the sugar with which the urine abounds to be vegetable matter, proposes to cure this disease by confining the patient to a diet solely of animal food*. This plan has not succeeded in the practice of the late Dr. Lubbock, of Norwich, and others, who found, notwithstanding a strict adherence to animal food, that no alteration was produced either in the *quantity* or *quality* of the urine.

Dr. Gilby, physician to the General Hospital, near Birmingham, has published several cases of diabetes which were cured by the nitric acid, in the following proportion:—

Take of nitric acid, a drachm and a half; barley-water, half a pint; simple syrup, two ounces.—Mix. Four large tablespoonfuls to be taken, with the same quantity of water, three times a day.

* Had Dr. Rollo properly examined the sugary matter, he could have found that it does not possess any vegetable property whatever. Like other animal productions, it putrefies and yields ammonia.

Mr. Chavasse, surgeon, in Walsal, has found this medicine to answer in one bad case of the disease.

Dr. Dobson, of Liverpool, who has paid particular attention to this complaint, recommends the use of strengthening medicines, as the Peruvian bark; and Dr. Schutz much extols lime-water as a remedy.

The hepatised ammonia, with an abstinence from vegetable food, it is said, has succeeded in a few cases of diabetes. The small dose of five drops of this medicine should be begun with, and repeated three or four times a day, in a little water, and increased two drops in each dose every day till it produce some degree of nausea, or slight giddiness. This medicine should always be dropt at the time of taking, as by being mixed up in draughts, or any other form, its medicinal properties are destroyed by decomposition. A draught composed of fifteen drops of laudanum, twenty-five drops of antimonial wine, and a little mint-water, is also recommended to be taken every night during its use. The bowels should be kept open by the occasional use of Flowers of Sulphur, No. 55, Castor Oil, No. 3, or the Compound Colocynth Pill, No. 46. This mode of treatment is directed to be pursued till the morbid condition of the stomach be removed; the marks of which are, a *diminished* secretion and *high coloured turbid* state of the urine, accompanied with a *loss* of appetite and *loathing* of food. At this time the tongue and gums lose their florid red colour and become pale. When these effects are produced, exercise is to be taken; and a *gradual* return to the use of bread, and vegetables,

such as brocoli, spinach, peas, cauliflowers, cabbage, lettuce, and parsnips, in moderate quantities, is to be allowed. The drink should consist of such liquors as afford the least saccharine matter, as water with a very small proportion of brandy.

Dr. Ferrear has published three cases, in which he succeeded by giving the Peruvian bark with the leaves of the bear's whortleberry and opium, in the following proportion:—

Take of yellow bark, in powder, bear's whortleberry, in powder, of each one scruple; opium, dried and powdered, half a grain.—Mix. To be taken four times a day, in a glass of lime-water.

Lime-water is likewise recommended, by this author, for the common beverage.

The rhatany root I have found to succeed in this disease much better than the Peruvian bark. (See page 98.)

During its use the warm-bath once or twice a week, and a flannel waistcoat next the skin, will be proper. The diet should principally consist of animal food; and the common beverage, of three parts of distilled water and one of alum-whey*.

Since the last edition of this work was published, the loss of blood from the arm, to the extent of twelve ounces, about two or three times a week, according to its effects on the patient, has been much recommended as a certain remedy for diabetes; and several cases, in which it fully succeeded, have been published. Many object to this treatment in consequence of the

* This whey is made by boiling a drachm of alum in a pint of milk.

emaciated state of the system ; but as plenitude of the blood-vessels is often attendant on emaciation, the practice cannot be objected to on that account.

In this disease it is a material point to ascertain whether the morbid irritation of the secreting vessels of the kidneys be the effect of debility or relaxation, or increased vitality, which is often very difficult ; for although the system be much emaciated, and exhibit symptoms of great debility, super-irritation may exist in an internal organ, in which the loss of blood may be necessary to remove the exciting cause.

An increased secretion of urine is a frequent attendant on the hysteric affection and gout, in which cases it is free from saccharine matter, and being a symptomatic affection, will, of course, cease with the primary disease.

OF DIARRHŒA OR LOOSENESS.

This disease consists in frequent and copious evacuations of liquid stools, in consequence of morbid irritation of the intestines, occasioned either by acidity, putrescency of aliment, the undue use of purgative medicines, obstructed perspiration, or a translation of morbid matter to the bowels. When the stools appear *white* like cream, the disease is called *cæliac passion* ; and when the food comes away in an undigested state, it is termed *lientery*.

TREATMENT.—Before we adopt any decisive mode of treatment in this disease, we should be well satisfied whether it arises from super-irritation or sub-irritation ; as in the former case it is to be considered an operation

of Nature, to unload the system, in which it is the duty of the practitioner to assist her by gentle aperients, and in plethoric habits by an extraction of blood. When the strength of the constitution is not materially reduced by the evacuations, it may be considered as salutary; in which case, by avoiding much vegetable food and acids, and taking broth thickened with arrow root or rice, it will gradually cease.

If its debilitating effects should indicate the necessity of checking the evacuation, it will be most prudent to administer a gentle emetic of Ipecacuan powder, No. 23, and afterwards fifteen grains of Rhubarb Powder, No. 26, in a little simple cinnamon-water, with the view of removing any irritating matter from the stomach and intestines, prior to the use ofstringent medicines. The cure may be then completed by the Cretaceous Mixture, No. 64, and the occasional employment of the Clyster, No. 96. If the skin be dry and hot, three grains of Ipecacuan powder, No. 23, with five drops of Laudanum, No. 31, should be taken at bed-time, in a little simple peppermint-water. If these fail to produce perspiration, the warm-bath to about 100 degrees will be proper. After the complaint is effectually checked, the decoction of the Iceland liverwort should be taken, as directed page 84, or two teaspoonfuls of the tincture of Rhubarb root or of Angustura bark, three times a day, in a little water, for the purpose of strengthening the stomach and intestines.

The combination of animal and vegetable jellies, recommended under the head of *Arrow Root*, page 99, affords the best diet.

Mulled wine, so frequently given in these affections of the bowels, by becoming acid, often aggravates the purging, and produces griping pains. People subject to this complaint should wear flannel next the skin.

Such as indulge in the too free use of the bottle are very liable to purgings from morbid irritability of the intestines, or vitiated secretion from organic mischief: in such case, after the operation of an emetic of ipecacuan powder, and a gentle dose of rhubarb powder and magnesia, the following medicines may be given with great advantage:—

Take of alkalized mercury, half a drachm; opiate confection, one drachm.—Mix; and divide into eighteen pills, of which three may be taken every night;

and a wineglassful of the following mixture three times a day:—

Take of decoction of Iceland liverwort (page 96), lime-water, of each six ounces; compound tincture of rhatany root, one ounce.—Mix.

The salutary effects of this treatment will be of short duration, unless the patient observe a regular mode of living.

People predisposed to pulmonary consumption are very subject to diarrhœa, and in them it generally proves very obstinate; and, when imprudently checked by astringent medicines, is generally succeeded by cough, and other symptoms of incipient consumption. In such patients, therefore, instead of restraining it, we should moderate it by the mixture recommended under the head of lime-water (see Lime-water); and as it abates, we should also attend to the state of the lungs.

We should likewise carefully observe the *effects* of diarrhœa on the system when attendant on fever. In those affections it is most frequently an effort of nature to relieve the system; and in such case, if checked, it is generally succeeded by some local mischief, as inflammation of the brain, lungs, or bowels. Under the head of Cretaceous Powder, I have made some observations on the critical purgings of fever.

People subject to irritation in the bowels on change of weather, passions of the mind, or on any slight deviation from an accustomed mode of living, should wear flannel next the skin.

DISTINCTION.—This disease is distinguished from *dysentery* by the *absence* of fever on its *first* attack; by the discharge of *fæces*, which in dysentery is rare, and only in a hardened form; and also the want of that odor in the discharge which attends dysentery, and marks it a contagious malady: an aggravated diarrhœa will hence often very much resemble dysentery, and also be attended with slime and blood.

For the *Purging of Children*, see pages 145 and 150.

OF DROPSY.

This disease consists in an effusion of the watery part of the blood, in different parts of the body, in consequence of general or local weakness, or a mechanical cause. Collections of serum are often the consequence of an increased effusion from the exhalent vessels, or diminished action of the absorbents. Local dropsy is frequently occasioned by some en-

largements or indurations of the body, mechanically interrupting the free return of blood to the heart: thus an impregnated womb, by compressing the large veins that convey the blood from the lower extremities, is a frequent cause of dropsical swellings of the legs. Induration or enlargement of the liver* will, in the same manner, produce dropsy of the belly; and a polypus in the right ventricle, or ossification of the valves of the heart, will produce an effusion of serum in the chest.

Physicians who suppose that the *science* of medicine consists in the multiplication of technical terms, enumerate many species, according to the situation of the body in which the effusion occurs. When it takes place in the cellular membrane, immediately beneath the skin, it is termed *Anasarca*; when the cavity of the belly, *Ascites*; and the chest, *Hydrothorax*: but the whole of such collections fall under the general denomination of dropsy, and, when produced by debility, require the same method of treatment. The symptoms of *anasarca* are, an uniform pale, and often shining distension, of the skin, generally of the legs, at first soft, and readily receiving the pressure of the finger. The swelling, by an horizontal position, is much diminished, and the face becomes puffed. It gradually extends itself upwards, till it occupies the thigh and trunk of the body, and sometimes even the head, attended with scarcity of urine, which is always

* This diseased state of the liver is generally the effect of the abuse of spirituous and vinous liquors. Dropsy thus produced is commonly the harbinger of death.

high coloured. When it occupies the belly, the enlargement begins at the bottom, and gradually increases upwards, attended with a sense of weight and an evident sense of fluctuation on a sudden motion of the body. As the enlargement increases, the breathing becomes difficult, and the cellular substance of the legs distended. When the effusion is in the cavity of the chest, there is always, more or less, a sense of anxiety about the heart, a difficulty of breathing, which is increased by lying down, a dry cough, palpitation of the heart, paleness of the face; and when far advanced, the legs swell, and a fluctuation is perceived by the patient on any sudden shake of the body.

TREATMENT.—The removal of the collected water, and restoration of the tone of the system, are the only objects to accomplish in the cure of this disease, when the cause is merely weakness. The first should always be attempted by internal medicines, in preference to surgical operations or blisters. For this purpose the bowels should be emptied by a full dose of the Basilic Powder, No. 36, and the following day the Diuretic Pills, No. 80, page 71, with a wineglassful of the Tonic Mixture, No. 77, page 74, should be taken as there directed. The basilic powder should be repeated about twice a week, if the state of the bowels will admit of it. A tablespoonful of steel wine may likewise be taken two or three times a day.

The Emetic Powder, No. 88, may also be given two or three times a week. An emetic not only increases the action of the absorbent vessels, but is a powerful remedy in the removal of visceral obstruc-

tions. A speedy absorption of the water of dropsical swellings is often produced by spontaneous vomiting.

When the legs are affected, they should be well rubbed with a flesh-brush, or camphorated oil; electric sparks, by stimulating the absorbent vessels, have also proved beneficial. If the legs only are affected, flannel rollers, regularly applied from the toes to the knees, will prove very beneficial; but when the thighs and belly are enlarged, no real advantage will be derived from them. The diet should be chiefly animal food, and the common drink the Batavian spirit of juniper, or brandy (diluted), and Port wine.

If the collection of watery fluid be not evidently diminished after due perseverance in these means—if situated in the cavity of the belly, it should be drawn off by an expert surgeon; and if in the extremities, blisters or scarifications*, at the same time continuing the use of the tonic mixture.

From the supposition that the condition of the skin of a dropsical patient is changed from a perspiring to an imbibing state, it has been proposed to besmear the surface of the body with oil. The great accumulation of water during the intervals of tapping, which has in many instances been found considerably to exceed in weight the quantity both of solid food and liquids taken in the time, may be the effect of the union of the inflammable and vital air; with which the former dropsical patients are much troubled, and which evidently enters the blood-vessels, by its passing off in

* These means should not be employed without the sanction of an experienced practitioner.

considerable quantity from the lungs. (See Flatulence.)

It must be remembered, that the causes of dropsy are more numerous than those of any other complaint, and it is more frequently the consequence of some other disease than a *primary* affection. It is likewise often influenced by such a variety of untoward circumstances, that it is impossible to lay down general rules for its treatment.—When it is attended with a diseased liver, mercury should accompany the use of tonic medicines, as directed under the head of Calomel:—when the cause is doubtful, and when the patient is advanced in life, the objects we should have in view are, the improvement of the general health (as directed in cases of indigestion); to promote the secretion of urine, as suggested under the head of Squill Pill; and to support the parts most affected by friction, and the gentle pressure of a roller.

The diet should consist chiefly of animal food, either roasted or stewed down into soup or rich broth; and the beverage good Port wine, or the Holland spirit of juniper (commonly called gin), which, mixed with the imperial drink, noticed under the head of Cream of Tartar, page 62, will also promote the operation of the medicines, by increasing the secretion of urine. The common practice of confining dropsical patients to a limited use of liquids, has never, I believe, been attended with any advantage. Dr. Cullen observes, that he has seen it carried to great length without any manifest benefit to the patient, while, on the contrary (observes this esteemed author), the practice of giving drink very largely has been found not only safe, but

very often effectual in curing the disease. The ingenious and learned Dr. Millman recommends large quantities of watery liquids for the cure of dropsy. Not only from the instances he mentions from his own practice, and from that of several eminent physicians in other parts of Europe, but also in many instances in the records of physic, of the good effects of drinking large quantities of mineral waters in the cure of dropsy, I can have no doubt of the practice being very often extremely beneficial, by promoting the operation of diuretic medicines.

Exercise is often highly useful in dropsy: any mode may be employed that the patient can most conveniently take, such as walking, riding either on a horse or in a carriage, or swinging. It should always be as much as he can easily bear. By exercise alone, I am persuaded, employed early in the disease, Anasarca, or dropsy of the lower extremities, may often be cured.

Dropsical swellings of the legs, attendant on pregnancy, may be relieved by flannel rollers, friction, and supporting the legs on a sofa or stool, and by keeping the bowels regularly open, by gentle doses of rhubarb, or lenitive electuary.

DISTINCTION.—Dropsy of the belly may be distinguished from pregnancy, by being a regular enlargement of the belly, whereas that of pregnancy is generally evident on one side. The motion of the child is, after the fifth month, perceptible, on placing the hand on the bowels. In pregnancy the breasts are also enlarged, and often painful. Dropsical females seldom experience an interruption in the men-

utual evacuation, unless the powers of the system be much reduced. Dropsy of an ovary is not so easily distinguished from pregnancy. By its progress, the state of menstruation, and general health of the patient, a medical man may be enabled to distinguish it from pregnancy.

OF DYSENTERY.

This disease generally occurs in summer and autumn, about the time autumnal intermittent and remittent fevers appear, with which it is often complicated. When attended with a discharge of blood, it is vulgarly termed the *bloody flux*. It is probably a kind of specific inflammation of the internal membrane investing the intestines, particularly of the colon and rectum, occasioning a considerable morbid secretion of mucus.

SYMPTOMS.—This disease consists in frequent evacuations of slime or mucus from the intestines, often mixed with blood, and when attended with the natural feces, they are generally in a compact and hardened form. The motions are generally small, accompanied with very severe griping, and followed by a bearing down and considerable irritation of the anus. With these symptoms there are a loss of appetite, sickness, and sometimes vomiting, and the patient sooner or later becomes affected with a fever, which is sometimes inflammatory, and very often of a putrid kind. This disease is more frequent in warm than in cold climates; and, from its infectious nature, is often epidemic in camps and other places.

CAUSES.—Putrid air and aliment—fruit, and the too frequent use of fermented liquors and strong cathartic medicines—and whatever is capable of increasing the irritation of the intestines, are the causes of this disease.

From the dissection of patients who have died of this disorder, the internal coats of the colon and rectum have been found affected with inflammation and its consequences, viz. ulceration, gangrene, contractions, and thickening.

TREATMENT.—In the cure of dysentery, the first objects are to empty the stomach by an emetic of twenty grains of ipecacuan powder, and the intestines by the Epsom salt, in the dose of half an ounce, dissolved in a little peppermint-water. After these medicines have duly performed their office, in order to allay the increased irritation of the intestines, and to produce a determination of perspirable matter to the skin, two grains of ipecacuan powder, with ten drops of laudanum, may be given every three hours. A lavement made of starch, administered twice or thrice a day, will also prove serviceable, by sheathing the inner surface of the large intestine; and also as a fomentation. When the pulse is full, hard, and strong, or when the disease is super-irritative, the loss of blood from the arm may be necessary; but when it is in the first instance sub-irritative, or when it is arrived to the sub-irritative stage, or, in other words, has induced a state of general debility, blood-letting should not be had recourse to, unless the sanguiferous system be evidently over-loaded. If the pain in the bowels be violent, a warm-bath and a large

blister to the abdomen will be necessary. The diet should be chiefly vegetable jellies, as that of arrow-root, sago, tapioca, &c. &c.

When the first or violent symptoms are abated, and the system is in a quiet state, the following powder, taken three times a day in a teacupful of the decoction of the Iceland liverwort, will generally complete the cure :—

Take of ipecacuan powder, one grain; rhubarb powder, four grains; cinnamon ditto, four grains.—Mix.

If, after one or two days' trial of this medicine, the symptoms should not considerably abate, eight grains of the compound cretaceous powder, and five drops of laudanum, may be added to each dose.

Several astringent and strengthening medicines are recommended at this period of the disease, such as the *Simarouba bark*, *Columbo root*, *Cascarilla*, and *Peruvian bark*; but I have found none of them to answer so well as the Iceland liverwort. Dr. Cheston, of Gloucester, has noticed a very obstinate case of dysentery, which resisted all other remedies, that was effectually cured by a decoction of this herb.

If the disease should continue obstinate, some visceral obstruction or ulceration of the intestines may be suspected; in either case, five grains of alkalized mercury, with five drops of laudanum, in a teacupful of the Iceland liverwort decoction, twice a day, will prove very beneficial. The patient should avoid the use of acids and vinous or spirituous liquors.

Opium should not be employed in this disease unless a free evacuation of the bowels has been procured by aperient and emetic medicines, as it generally increases

the inflammatory state of the system: if, however, the patient suffer by acute pain in the bowels, it cannot be entirely dispensed with.—Five or six drops of laudanum may in that case be administered with one or two drachms of the Epsom salt.

When the morbid irritation has ceased, the rhatany root will prove very beneficial in promoting digestion and restoring tone to the intestines. It may be given in the following manner:—

Take of extract of rhatany root, one drachm; aromatic tincture of ditto, six drachms; pure water, seven ounces.

Two or three tablespoonfuls to be taken every four hours.

The treatment of this disease must in a great measure depend on the *nature* of the fever accompanying it, and in all cases must be varied according to the predominating symptoms, &c. As the fever in general is of an ambiguous nature, it will be advisable to call in regular assistance in the first instance.

This disease is sometimes highly infectious, and is no doubt often propagated by the effluvia arising from the stools of the patient. The fæces should therefore not be suffered to remain in the house, but immediately conveyed to some distance, and the vessel afterwards washed with vinegar. The room should likewise be often fumigated with nitrous vapour (see page 102), which will not only prevent the disease from spreading, but contribute considerably towards the recovery of the patient.

If the disease be complicated with intermittent fever, the rhatany root or Peruvian bark should be employed in the earlier stages of the disease: great care should

be taken not to confound the rigors generally attendant on dysentery with intermittent fever, which could lead to mal-treatment of the disease. In all cases, flannel should be worn next the skin.

DISTINCTION.—This disease may be distinguished from diarrhœa, not only by being attended with a greater degree of fever and pain in the bowels, but particularly by the stools consisting chiefly of a *slimy mucus*, in which the natural fæces are seldom observable; and when so, they are in hard pieces or lumps.

OF EPILEPSY.

In consequence of the patient suddenly falling to the ground on an attack of this disease, it is also called *Falling Sickness*; and from its affecting the mind (being the most noble part of the rational creature), it is termed, by the ancient writers, *the Sacred Disease*.

SYMPTOMS.—It consists in an involuntary and violent convulsive contraction of the greater part of the muscles under the immediate influence of the mind, particularly those of the extremities, the eyes, the tongue, the lower jaw*, and the bladder, attended with foaming at the mouth, and a total loss of sensation, and ending in a state of insensibility and apparent sleep. The patient, on becoming sensible, complains

* Bystanders, unacquainted with the nature of these fits, suppose the patient to be in great agony. During the convulsion, he is in an insensible state, and his sensations on recovery are often more pleasurable than otherwise. Sometimes, however, they are the reverse, and the horror some experience remains on the mind for many days.

of torpor, heaviness of the head, and general lassitude. The fit often attacks suddenly, but for the most part is preceded by a pain in the head, lassitude, dimness of the eyes, and a kind of tremulous sensation, beginning in the lower extremities, often in the great toe, and ascending to the head. The fits frequently recur during sleep*.

CAUSES.—The dissection of epileptic persons has shewn a variety of morbid appearances, as tumours in the brain or membranes; caries or preternatural projections of the internal surface of the skull bone; collections of serum, or purulent matter; and earthly concretions within the skull: while others, who have died of epilepsy, have exhibited no morbid appearance whatever. Aneurismal affections of the arteries of the brain, I believe to be often the cause of this disease, by the pressure and irritation produced by their distension, which often ends in fatal apoplexy or palsy, from the rupture of the aneurismal sac—a termination by no means unfrequent. It is likewise produced by the irritation of worms in the stomach or intestines, particularly the tape-worm; also by dentition, and by violent passions of the mind, both of the exhilarating or depressing kind—as anger, joy, terror, and grief†.

* I was requested to see an epileptic patient a few years ago, who was always attacked with the disease on going to bed, and continued more or less convulsed all night. He, however, rose every morning at the usual hour, without the least knowledge of what had happened, and apparently refreshed by his night's rest; nor would he have known that he was subject to fits, had not his bed-fellow acquainted him with the circumstance.

† Van Swieten's Commentaries, vol. iii. p. 414.

In children, epileptic fits are often attendant on dentition, and precede the eruption of small-pox and measles, and sometimes occur in females that are subject to a retention of the menstrual evacuation; but they more frequently proceed from an hereditary disposition. See Convulsions of Children, p. 152.

TREATMENT. — Various remedies for this disease have been recommended, from the time of Galen to the present period; but experience has proved fatal to their reputation. The *nitrate of silver** has lately been recommended as a specific for epilepsy, which, unfortunately, has not been confirmed by the experience of others, several cases having been published in which it proved of no advantage. When the disease arises from worms, the Basilic Powder, No. 36, or the Electuary, No. 86, with the use of lime-water, and the Tonic Mixture, No. 77, will prove beneficial. (See Worms.)

When the cause cannot be ascertained, if the patient be of an apoplectic make, and of a plethoric habit of body, bleeding will be proper, but not otherwise; as the loss of blood, by inducing debility, will render the recurrence of the fits more frequent. Valerian tea, with the tincture of the Russian castor, may be tried, with the following pills:—

* When the nitrate of silver was first recommended as a specific for epilepsy, Dr. Cheston gave it a trial at the Gloucester infirmary. The first case that occurred, was a young man that had been subject to attacks twice a day for many years. After the exhibition of two or three doses, the fits suddenly left him, and he was shortly after discharged cured. He soon experienced a relapse, for which he was re-admitted, and the same medicine administered without producing any beneficial effect whatever.

Take of nitrate of silver, one scruple ; extract of white poppies, two scruples.—Mix well together, and divide into twenty-four pills, of which one may be taken twice a day.

If these pills afford no relief, after twelve days' perseverance in their use (for I do not conceive it safe to continue them longer, unless the patient derives very considerable advantage from them, without producing any derangement of the digestive organs or bowels), the following are worth a trial :—

Take of vitriolated zinc, half a drachm ; essential salt of bark, one drachm.—Mix ; and divide into twenty pills : two to be taken twice a day, with a draught of valerian tea.

The following bolus, much recommended by Dr. Hugh Smith, is a favourite remedy with many routine physicians :—

Take of Russian castor, one scruple ; oil of hartshorn, six drops ; the confection called Paulina, ten grains.—Mix, for a bolus : to be taken every six hours.

The flowers of cardomine, or lady's smock, have been prescribed with advantage by Sir George Baker : the fresh powder may be taken, to the extent of a drachm, three or four times a day.

Mr. Hodgson, of Bishopwearmouth, has published a case of a young girl, about eight years of age, that was cured by electricity. A young lady was cured by Citizen Portal, that was every day attacked by an epileptic fit. The attack beginning in one of her toes, suggested to that able anatomist the idea of dividing the nerve, for the purpose of interrupting the communication with the brain ; but he began by the application of opium to it, and that alone effectually prevented a recurrence.

The good effects of calcined zinc have been attested

by Dr. Haygath, of Chester; Dr. White, of York; and Mr. Bell, of Edinburgh.

The following prescription, for the exhibition of this medicine, is given by Dr. Saunders:—

Take of calcined zinc, eight grains; conserve of roses, sufficient to form a bolus.—To be taken twice a day.

A treatise on the efficacy of the misletoe of the oak in the cure of epilepsy, has lately been published; by which it appears that it has been administered in three different cases of epilepsy with complete success; all of which, it is stated, previously baffled the skill of several eminent practitioners; and the author asserts, that its exhibition has uniformly been attended with success under his directions. A case of this disease in a lady of quality, in which it proved remarkably successful, is related by Boyle; and, some years afterwards, its use was strongly recommended by Sir John Colbach, who has published several instances of its good effects. In a few cases in which I have known it exhibited, it totally failed to produce any salutary effect whatever, while in others it has entirely subdued the disease.

As there is incontrovertible evidence that these medicines have succeeded in certain cases, and as the disease arises from such a variety of causes, they are deserving of trial; for, in the treatment of so distressing a complaint, no plausible remedy should be left untried.

If the patient be affected with pains in the head, a friction in the nape of the neck should not be neglected, and the feet kept warm by the use of flannel socks.

The diet must depend on the state of the constitu-

tion of the patient; if it be debilitated, it should be nutritious, but not stimulating. Distilled water affords the best beverage: this article, though simple in itself, may, by quieting the system and promoting digestion, prove of more real and permanent advantage than the most potent medicines. Hippocrates judiciously directs a total change in the manners of life, that former habits may lose their influence.

The seat of this disease is evidently the brain and nervous system, and therefore, whatever tends to render the body irritable, will produce the fits: now, as a great sympathy exists between the brain and stomach, we find epileptic patients more affected with fits when the stomach is disordered; hence, in all cases of epilepsy, we should pay particular attention to the state of the digestive organs, and the epileptic patient should avoid every thing that has a tendency to disagree with the stomach. When the stomach of an epileptic patient is relaxed or weak, stimulants and astringents, such as lunar caustic, flowers of zinc, &c. will often succeed in preventing a recurrence of the fits; and hence many routine physicians conclude, that the remedies are antispasmodic.

When the disease arises from organic mischief in the brain, he should avoid all excesses, and particularly those which have a tendency to stimulate the body or mind. He should attend to the directions given under the treatment of Indigestion; and, for the purpose of allaying morbid irritation of the brain, it would be advisable to wash the head with cold water every morning, for which purpose the head should be shaved. If the patient be of a plethoric habit,

or in case he suffers from too great a determination of blood to the brain, an issue or seton to the nape of the neck is a very important remedy. Whether the morbid irritation of the brain be connected or not with organic mischief, or any local cause, this treatment is proper.

The power of the association of ideas is, in this disorder, very remarkable: a gentleman, now resident in the city of London, is always seized with an epileptic fit on entering his carriage; and Van Swieten relates a case of a child, who, after being frightened into an epileptic fit by a great dog leaping on him, experienced a return for some time afterwards on seeing a large dog, or even by hearing his barking at a distance. It is a well-known fact, that the mentioning or recalling to the mind any particular circumstance that attended an epileptic fit, will often reproduce it. Hence, the learned Galen very judiciously advises all things to be avoided that lead to the recalling the disorder to the memory. Others of the ancient physicians, observing how much this complaint is connected with mental affections, and how it may be reproduced by reflecting upon it, have endeavoured to abstract the mind from such ideas, by exciting impressions still more powerful. Upon this principle it was, I apprehend, advised by Pliny, for one patient to drink the warm blood of a gladiator, that issued from him in the agonies of death. Scribonius Largus directs a portion of his liver to be eaten for the same purpose; and Aretæus not only mentions these, but several others of the disgusting kind, as the raw heart of a coot, the brain of a vulture, &c. If

these strange hideous remedies could have any efficacy, it must be owing to their absorbing the attention, and of course leaving no room for the apprehension and recollection of the disorder to operate; and in this way it is possible they may have been of service. The relics of saints, and such-like trumpery, have on the same principle obtained celebrity in the prevention of this disease: the religious ideas connected with them, no doubt, in those superstitious times, operated powerfully on the imagination.

As the nervous system is more affected through the medium of the mind than by the effects of medicine on the body, whatever produces a serene state of mind, powerfully tends to allay irritation of the brain. (See Cerebral System, in the introduction to the first part of this work.)

DISTINCTION.—This disease may be distinguished from apoplexy, by the convulsed *action* of the muscles; and from hysteric fits, by *not* being attended with the spasmodic contraction of the muscles of the *gullet*, giving the patient a sensation of a ball rising in it; and by the patient having *no* dread of death.

OF ERUPTIONS OF THE SKIN.

Under this head I shall include the treatment of the chronic eruptions of the skin generally, but improperly, termed *Scorbutic*.

When pimples, or pustules in the face, are the consequences of high living, or excessive drinking, the best remedy is the aperient sulphureous water, or the Epsom salts, as directed page 8.

The scaly affections of the skin, or clusters of small pimples, unattended with fever, will gradually yield to the medicines recommended under the head of tartarised antimony wine (see also Nos. 2, 34, 54, and 55), with the topical application of the Ointment, No. 106, page 81.

When inflammatory eruptions follow fever, they should be considered salutary, and treated *only* by internal remedies till the fever and local inflammation have subsided, when the health of the parts that have suffered may be recovered by the Alterative Ointment, No. 106, page 81.

For the chronic inflammations of the skin, appearing in patches over the body, in the spring and autumn (generally termed leprosy, and by some scurvy), the following medicines I have never known to fail in the most obstinate cases:—

Take of precipitated sulphur of antimony, one drachm; prepared calomel, fifteen grains; conserve of hips, sufficient to form a mass.—
To be divided into thirty pills. One to be taken twice a day, with a draught of the decoction of the sassafras nut. (See page 100.)

After taking the pills four days, a little of the following ointment should be rubbed over the parts affected every night:—

Take of ointment of nitrated quicksilver, spermaceti ointment, of each equal parts.

To be well mixed in a *glass* mortar, or with an *ivory* spatula, as metals will decompose the nitrated quicksilver, and thus destroy the efficacy of the ointment.

The eruption termed ringworm is too well known to require description. A very popular, and generally successful application, is, common ink, the efficacy

of which chiefly depends on the quantity of steel it contains. The muriated tincture of steel diluted with an equal quantity of water is equally efficacious, and a much neater application. When it resists this remedy, the nitrated ointment of quicksilver, rubbed over the part every night and morning, will seldom or ever fail to cure it. The solution of the Epsom salt, with sulphur, recommended No. 2, page 8, will also be very proper.

In all cases of eruptions of the skin, the state of the digestive organs should be particularly attended to; for imperfect digestion is often the source of the most obstinate cutaneous affections, and never fails to aggravate them. Before, therefore, an alterative course of medicine be adopted, it will be proper to clear the first passages by an emetic, and a brisk aperient medicine, and to strengthen the digestive organs by the use of the mixture of salt of bark and soda, in the proportions recommended No. 75, page 73. When the disease is attended with a morbid irritation of the absorbent system, termed scrofula, which is frequently the case, the prepared natron, taken as directed No. 60, will prove a powerful auxiliary.

The diet should consist principally of vegetables, unless the strength of the system be much reduced, when fresh meat may be allowed*. Salted and fat meat, high-seasoned dishes, and spirituous liquors, should be avoided. Distilled water, or whey, or buttermilk, will afford the best beverage.

* The sassafras cocoa, noticed page 100, affords a very nutritious and corrective breakfast and evening repast.

Children, from their birth till after teething, are subject to a variety of eruptions of the skin, such as the red gum, tooth-rashes, nettle-rash, watery eruptions, &c. &c. which, although they differ in appearance, progress, and extent, seem to arise from the same cause, viz. a vitiated state of the humours from predominate acidity in the stomach, or the milk of an unhealthy nurse. In the treatment of these early eruptions, external applications should never be employed, unless prescribed by a skilful physician or surgeon, or the practitioner be well acquainted with the diseases of infancy. Exposure to cold should be carefully avoided, and the state of the stomach corrected by small doses of magnesia, to which a little cretaceous powder may be added in case the bowels be much disturbed. If the child be of a gross habit of body, the Basilic Powder will also be proper, as directed No. 36. As the milk of the nurse is often at fault, she should take a teaspoonful of the tincture of Columbo, with a little magnesia, in simple peppermint-water, two or three times a day, to promote digestion; and to obviate costiveness, by the use of the solution of Epsom salt, as advised No. 2. When the scales of the eruptions of infants become troublesome from hardness, a little spermaceti ointment, or cream, may be applied to them. (See Red Gum, page 156, and Thrush, 157.)

Cutaneous diseases have claimed a large share of attention from some medical theorists, who have given every blemish some fine-sounding name. Their elaborate classifications have been attended with no practical utility; for the authors who have expressly

written on them, it is well known to the members of the profession, have been the most unsuccessful in their treatment. In all cases the first point to determine is, whether the eruption be constitutional or local, and if the former, whether it be super-irritative or sub-irritative. In the former case it is generally of a critical nature, and, as already observed, should be treated by internal remedies. In the latter case, the treatment recommended for indigestion, with the application of the ointment, No. 106, page 81, will prove the most beneficial. The same diseases of the skin exhibit different appearances from a difference in the structure of the parts in which they occur, and the extent or depth of the mischief: i. e. the disease of the scalp, termed scald head, is very different in its appearance and progress when it occurs on a tender, or irritable, or a thick skin. It again varies accordingly as it is confined to the cuticle, or extends to the rete mucosum, the cutis, and the cellular membrane beneath the skin. The state of the constitution also gives a different character. These remarks apply only to the eruptions which are not produced by contagion. The constitutional and local treatment recommended above, therefore, apply to all the diseases of the skin that do not arise from contagion, or what are termed eruptive fevers.

OF EXCORIATION.

When excoriation is the consequence of friction, it may be easily cured by applying, to the surface, the Spermaceti Ointment, No. 41, or the Discutient

Lotion, No. 92; but in case of much inflammation, the Emollient Poultice, No. 112, will be most proper; and if attended with fever, or a full or bad habit of body, the Aperient Mixture, No. 62, will also be necessary. After the due operation of the aperient medicine, from five to ten drops of laudanum may be taken at bed-time or twice a day, with the view of allaying pain and preventing mischief. A low diet should be observed till the inflammatory symptoms are gone off. For the *Excoriations of Children*, see Galling, page 156.

OF FAINTING, OR SYNCOPE.

SYMPTOMS.—A fainting fit begins with a great anxiety about the heart; the pulse and respiration become suddenly weak, and sometimes to such a degree, as to all appearance wholly to cease, with coldness of the extremities, and death-like paleness of the face, &c.

CAUSES.—These fits are most commonly occasioned by excessive evacuations, particularly of blood; they are likewise produced by passions of the mind*, violent pain, impediments to the free circulation of blood, as polypus, aneurism, and ossification of the aorta; and probably sometimes the consequence of the communication between the auricles of the heart, which exist during the foetal state, remaining entire.

* The effects of mental agitation in causing fainting are well known; and when violent, sometimes prevent the re-action of the system, and consequently occasion sudden death.

TREATMENT.—When the fit is occasioned by excessive evacuations, the body should be immediately placed in an horizontal position, in a current of air, and the acetic acid, or sal volatile, applied to the temples; of the latter of which a tea-spoonful may likewise be given in a little cold water: the extremities should be rubbed with *warm* flannel, and *cold* water sprinkled over the face and neck. After the recovery from the fit, if the patient be much debilitated, he should be supported by a nourishing diet, as beef tea, arrow-root jelly, with a little wine. When the fit arises from pain, the internal use of laudanum will be necessary, as directed No. 31, which, by allaying irritation, will in such case prevent a recurrence. When fainting is produced by passions of the mind, and the patient be plethoric, the loss of blood from the arm will be necessary. If debility be the cause, the Tonic Mixture, No. 77, should be taken, as there directed; and if obstruction of the circulation, from polypus, or organic disease of the heart, much bodily exertion, or whatever tends to hurry on the circulation, should be carefully avoided.

In persons of great irritability of nerves, nothing conduces more to increase the morbid irritability of the nervous system, which is a cause of fainting, than a *studious solicitude* to avoid every thing that is likely to have that effect: it fixes the mind on the very object we would wish to avoid, and, by *augmenting* the effects of *trivial* accidents, multiplies the number of causes that may produce the disorder dreaded: a firm resolution to resist the effects of frivolous incidents upon the mind, and of course on the nerves, is far prefer-

ble. Haller has related a story, where a disposition of this kind was conquered by a great exertion of the will; and almost every person has seen temporary attacks of a similar kind put off by the struggles and resolution of the person attacked.

As there exists a great sympathy between the brain and stomach, people subject to fainting should pay particular attention to the state of the stomach, and to avoid every thing that is likely to disorder it or disturb the nervous system. (See treatment of indigestion.)

OF FILMS, OR SPECKS ON THE EYE.

For the removal of films, or small specks on the surface of the eyes, the Astringent Eye-water, No. 101, page 76, dropped between the eye-lids two or three times a day, is an efficacious application. If they be attended with much inflammation, the application of a blister to the nape of the neck; the use of the Aperient Mixture, No. 62; and an alterative pill of two grains of calomel, No. 34, every night for a week; will likewise be necessary.

If the eye-water should not prove sufficiently strong, a little finely-powdered cuttle-fish bone should also be blown within the eye-lids through a quill every night or morning, or applied mixed with a little honey, by means of a camel-hair pencil.

If the patient be of a scrofulous habit, or if the opacity be the consequence of scrofulous inflammation, the mixture, No. 75, page 73, will also be proper; for

although the speck or film may appear trifling, it is of great consequence to improve the state of the general health.

OF FLATULENCE.

So prevalent are flatulent affections of the stomach and intestines in this country, that very few persons are entirely exempt from them. They have, however, by no means met with that attention from the medical profession which their frequency and effects on the constitution demand. Indeed, so little have their causes and nature been investigated, that they have been merely noticed as *symptoms* of indigestion. The gas (vulgarly termed wind) generated in the stomach is fixed air (technically termed carbonic acid gas), which is disengaged from badly fermented liquors, and probably is sometimes the effect of a decomposition of vegetable aliment, in consequence of weakness of the digestive organs. A collection of air in the stomach may therefore, in some degree, be considered the effect of indigestion. But the gas generated in the *intestines* is of a very different kind, being *inflammable air*, and evidently not altogether the effect of indigestion. This gas is, I believe, always discharged downwards: it is more or less offensive to the smell, being similar to the inflammable gas arising from gutters or stagnant water.

The air evolved in the stomach is noticed under the head of Indigestion; but as the generation of inflam-

able gas in the intestines is difficult to account for, I shall notice it here as a *primary* complaint, and, for the sake of distinction, term it *Intestinal Flatulence*.

It is extraordinary that this species of flatulency could have escaped the investigation of Hippocrates, who has so minutely delineated the symptoms of diseases; but, at that period, the nature of the different airs was very imperfectly known. Sauvage, in his Nosology, notices two species, viz. the acid* and fetid†, but he considers them to differ only as to smell, and as arising from the same source. Nor do I find that they have been noticed by those pneumatic theorists of the present period, who have endeavoured to prove, that many diseases arise from certain decompositions or combination of airs in the human body, and are to be cured by the exhibition of different gases.

Such as indulge in the free use of spirituous and vinous liquors are most subject to this gas; and it is remarkable, that even the breath of those who are in the habit of frequent intoxication is strongly impregnated with it. Whether this gas be disengaged from the wine or spirit, or whether those liquors, by their chemical action on the inner coat of the intestines, produce a morbid secretion of mucus, and inflammable gas is in consequence generated, I cannot take upon me to say. I have, however, met with patients much affected with this air, who were not apparently addicted to the pernicious habit of dram-drinking, or of taking wine even in moderate quan-

* Flatulentia acida, Spec. 1. Sauv.

† Flatulentia nidorosa, Spec. 2. Sauv.

tity: but from such a circumstance no conclusive inference can be drawn; for those who do not take their cheering glass publicly, may do it privately. Dr. Trotter is of opinion, that vinous spirit mixes with the blood; "for we know," says this author, "that hydrogen (*i. e.* inflammable air) escapes from the lungs in such quantity as to be perceived in the breath: we are, however, ignorant what combinations this gas, or other parts of the spirit, may form with the human fluids." Dr. Baillie, in his *Morbid Anatomy*, observes, "It is not unusual to find air accumulated in the intestinal canal in greater or less quantity. This air is sometimes accompanied with slight inflammation of the peritonæum, and at other times not. In such cases, the blood-vessels on the intestines are frequently filled with air. There are only two ways in which we can well conceive air to be formed in the intestines. The one is some new arrangement in the *contents* of the intestines by which air is extricated; the other is, the formation of air in the *blood-vessels* of the intestines, by a process similar to secretion, and which air is afterwards poured out by the extremities of the exhalent arteries into the cavity of the intestines. That the blood-vessels have this power there can be no doubt; and I own," says the doctor, "that this is a very frequent mode by which air is accumulated in the intestines." Of the nature of this gas, this author does not give a decided opinion; but observes, "that it requires to be examined by some person well acquainted with chemical experiments, in order that its ingredients may be well ascertained."

Nervous and hypochondriacal patients appear to suffer so considerably from this gas, that I never knew a nervous patient who did not always find himself much benefited by a free expulsion of it; and I have been assured by many, that in proportion to its effector, so has been their relief. Even violent headaches, stupor, palpitations of the heart, horror of mind, dimness of sight, noises in the ears, nervous twitchings, dryness and heat of skin, and a variety of other symptoms, have been speedily relieved by its evacuation. That this inflammable gas enters the blood-vessels is obvious, from its passing off by the breath; but whether these nervous affections be thus excited, or whether it be sympathetic of the irritation produced by it on the inner coat of the intestines, cannot be easily determined. That it is the cause of many nervous complaints, I think there can be no doubt. Water being a composition of the inflammable and vital airs, I think it possible that water may be formed in the system by the union of inflammable gas with the oxygen of the blood, and thus produce dropsical swelling; and at the same time, by depriving the blood of this vital principle, induce a dangerous degree of weakness in the system. Such an occurrence is, I think, more probable, than that the condition of the skin should be changed from a perspiring to an imbibing state, which, from the accumulation of water, has been supposed to be the case in some diseases of emaciation.

I have also observed that those people who are most troubled with inflammable gas, are most liable to headache and rheumatic affections on change of wea-

ther, and particularly on the approach of rain. (See Headach.)

TREATMENT.—The first object in the treatment of this complaint is, to empty the intestines by an active aperient medicine that will also carry off the vitiated slime adhering to the coats, and at the same time excite an healthy action in the mucous glands. For this purpose calomel will answer best, three grains of which may be taken at bed-time (made into a pill with a little conserve of hips), and purged off the next day with the solution of Epsom salts, as recommended No. 2, page 8. These medicines should be repeated at least twice a week for a fortnight. In the intermediate time, three tablespoonfuls of the following mixture may be taken three times a day:—

Take of rhatany root, bruised, one ounce; infuse in twelve ounces of boiling water till cold, then strain, and add diluted vitriolic acid, three drachms; vitriolated magnesia, two drachms; compound tincture of cardamom seeds, six drachms.

If the constitution have suffered from the free and continued use of spirituous liquors, the patient should continue to take this mixture for at least three or four weeks.

The Jamaica ginger powder is the best carminative that can be used in this case, as it not only effectually expels the gas, but, I believe, also corrects the secretion of the intestines, and, by stimulating their inner coat, occasions them to throw off any accumulation of mucus; thus, the fæces of people in the habit of using it are generally covered with slime.

The application of cold water to the head every morning by pumping on it, or applying to the crown

wet napkin for two minutes, has, in several instances, proved highly beneficial, probably by allaying morbid irritation of the brain, and, of course, the whole nervous system.

It is scarcely necessary to observe, that the patient could abandon the use of spirituous or vinous liquors; not immediately, at least by degrees, if he be desirous to obtain permanent relief.

It is a very common practice with routine physicians to desire their patients, troubled with this complaint, to abstain, as much as possible, from a vegetable diet. I have known this advice very strictly adhered to, but I have not found that the patients have been the most benefited by it: nor is it to be expected, from the nature of the gas, that they would; for the fixed air disengaged from vegetables rather corrects it than otherwise. Indeed, water saturated with fixed air, like the soda-water, I have found an excellent palliative, and evidently to correct its fœtor. People that overfill their stomachs with animal food are certainly more troubled with this species of flatulency than those who chiefly live on vegetables. A proper mixture of vegetable and animal food I have found to agree with such patients, and pure water as a beverage.

The cordial medicines of quacks, or, what is the same thing, ardent spirits and wine, often afford illent patients some relief, by expelling the air retained in the intestines; they however, afterwards, supply it in greater quantity to the blood, and the patient, encouraged to persevere in the remedy from transitory relief it affords, does not discover his

error till his constitution has so far suffered, that an increased dose of the cordial becomes absolutely necessary to keep up the vital functions. The mischief that flows from this polluted source of dram-drinking is incalculable. The most robust constitution is often ruined by it; and where it does not rapidly undermine the system, it leads to other excesses, which in process of time will infallibly terminate the life of these deluded votaries of pleasure. To say the least of the deleterious effects of dram-drinking, how completely does it frustrate the great ends of social intercourse, the promotion of harmony, and the attainment of knowledge—

“ That feast of reason, and that flow of soul! ”—

How justly, then, may we exclaim, in the emphatic language of the immortal Shakspeare, “ Every inordinate cup is unblessed, and the ingredient is a devil.” (See Nervous Diseases.)

OF GOUT.

In the introduction to the first part I have observed, that the animal body is composed of different systems—viz. the nervous, the lymphatic, sanguiferous, &c.—that in these systems the same disease exhibits different phenomena. When the lymphatic system is tender and easily disturbed, the habit is said to be scrofulous. The disease termed gout is inflammation or super-ignition of nerves, and, of course, the most painful inflammation to which the human body is subject. It is probably, as Dr. Cullen observes, an

Effort of Nature to restore vigour to a nervous system which has been debilitated or injured by over-stimulation, which she accomplishes by exciting inflammation in their extremities. Like scrofula, this state of nervous system is often transmitted by parents to their offspring.

This disease is divided into Regular and Irregular. When the inflammation appears in the nerves of the joints to a *due degree*, and *gradually* disappears, after a certain duration, leaving the patient rather in an improved state of health than otherwise, it is termed *Regular*.

Of the *Irregular*, there are three species, viz.

1st, *Atonic*—When there is not power in the nervous system to produce a sufficient degree of inflammation in the extremities; in this case the organs of digestion are impaired, and the general health variously affected.

2d, *Retrocedent*—When the inflammation in the joints is slight, and suddenly abates and occurs in an internal part. And,

3d, *Misplaced*—When it takes place in any of the internal parts.

Of Regular Gout.

This species of inflammation rarely occurs till the age of thirty-five, unless the hereditary predisposition is very strong*. It attacks sometimes suddenly, but is

* Hippocrates observes, that women seldom have the gout, and never before the age of forty-five. In his time and country, perhaps the ladies were more temperate than they are in the present state of *modern refinement*. It appears, however, that the gout was a familiar disease among the Roman ladies; which Seneca justly ascribes to the luxurious living and debaucheries in which they indulged without control.

generally preceded by symptoms of indigestion, as flatulence, loss of appetite, cramp in the stomach, &c. and sometimes by headach, stupor, numbness, a sense of pricking in the thighs and legs ;—the day preceding the attack, the appetite generally returns much keener than usual. The fit comes on sometimes in the evening, but generally about two or three o'clock in the morning, and for the most part in the spring of the year. The ball of the foot, or joint of the great toe, is commonly the seat of regular gout, the pain and inflammation of which uniformly increase, with more or less of a shivering, which abates as the pain becomes more violent, and is succeeded by a hot stage of the same duration as the pain, and with it gradually declines, when a gentle perspiration comes on, and the patient falls into a much-desired sleep.

CAUSES.—A sedentary indolent manner of life, full diet, especially of animal food, and the excessive use of wine and other spirituous liquors*, are enumerated by authors as causes of gout.

TREATMENT.—The treatment of this nervous inflammation in the extremities, or what is termed the gouty paroxysm, must be regulated by the state of the constitution. If the general health of the patient be good,

* This disease, the frequent companion of wealth and indolence, has been so often induced by the excess of wine, that in every age it has justly been styled the offspring of Bacchus. This fact is sufficiently substantiated in the records of medicine, for gout is seldom or never seen in the habitations of poverty and labour. In youth, hard drinking is particularly injurious; it brings on premature decay, and, more than any other cause, paves the way for the diseases of age before the meridian of life!

er if it were not preceded by symptoms of indigestion (as flatulence, cramp in the stomach, &c.), the bowels should be well emptied by the Aperient Mixture, No. 22, page 70, or the Cathartic Pills, No. 84, page 75: after which, three tablespoonfuls of the following mixture may be taken three times a day:—

Take of camphorated julep, twelve ounces; volatile salt of hartshorn, one scruple; sweet spirit of nitre*, two drachms. Mix.

The immersion of the extremity in cold water, in this case, is generally very beneficial; and may, in a healthy constitution, assist Nature in the recovery of the tone of the nerves. The application of warm water, by affording a conducting surface, is equally efficacious, and less hazardous; for cold, when attended with debility, may prove injurious.

An infusion of a vegetable poison (*Eau Médicinale*), which appears to be the foxglove, has lately been introduced as a specific for gout; and by reducing the powers of the system, and especially the natural energy of the nerves, has in many instances succeeded in terminating the paroxysm: but the apparent advantage obtained by it is a dearly-purchased truce, for the inflammation returns again in a short time; and if the operation of Nature be kept off by a repetition of the medicine, a degree of nervous debility is induced, occasioning palsy, or sudden cessation of the vital functions. When the gouty inflammation occurs in a shattered constitution, the exhibition of the *Eau Médicinale* has been followed by the sudden death of the

*The sweet spirit of nitre should be fresh and well prepared; otherwise, by neutralising the salt of hartshorn, it will destroy the property on which its efficacy depends.

patient. The application of cold water to the part, in such a habit, is not less dangerous.

If the stomach be much affected with flatulency, cramp, or vomiting, or the constitution impaired by repeated attacks, or irregular or free living, half an ounce of the volatile tincture of guaiacum may be added to the above mixture; and if acidity prevail in the stomach, two drachms of prepared natron. If the patient be advanced in years, or in a very debilitated state, the Gout Mixture, No 69, page 72, will answer best.

If the pain be very violent, a few drops of the liquid laudanum may be given at bed-time. This medicine, by weakening the powers of the stomach, often prolongs the fits; and it is not an uncommon occurrence, after a full dose of laudanum, for the gout to attack the stomach, and disorder the brain, so as to threaten the life of the patient. It should not, therefore, be employed, unless advised by an experienced practitioner, particularly when attended with general debility of the system. The acetic laudanum is much safer, and certainly more efficacious in procuring ease, in cases of gout, than the common laudanum. By its use, a respite of a few hours may be obtained, but the probability is, that it will prolong the fit some days, or even weeks.

When the gout attacks the stomach, or when it occurs in a debilitated habit, warm cordials are necessary—as the cardamom, peppermint or aniseed cordials, ether, or tincture of ginger. The feet should likewise be immersed in warm water, and afterwards well rubbed with flannel.

With respect to applications to the affected part, various opinions have been maintained by physicians, both ancient and modern. If the patient be plethoric, and his constitution but little impaired, the extraction of blood from the part by leeches or scarifications generally abates the pain, and shortens the paroxysm; but in people far advanced in years, or of weakly constitutions, death has been known to follow even the loss of a few ounces of blood. A blister near the part has been much recommended by Dr. Rush, and is much safer and perhaps not less efficacious than topical bleeding.

The immersion of the limb in cold water affords more speedy relief than any other application, and I have known many instances in which it has proved highly beneficial; but the cases were in a great measure local, being attended with no affection of the stomach, and the constitution not impaired. It is in these cases, I believe, that it has proved of such immediate and essential benefit in the practice of others; but where the constitution is debilitated, and especially when the paroxysm is preceded by a disordered state of the stomach or head, it is an Herculean remedy; and if it do not cure the patient, it will probably kill him. Thus,

Dr. Kinglake remarks, its *quieting* effects are certain.

A gentleman, who has for many years been a great sufferer by gouty inflammation, has lately applied to the inflamed part a liniment, composed of two ounces of olive oil, and two drachms of the vitriolic acid, with great success. In a few hours after using it, although at the time confined to his bed, he has been able to

walk with ease. This application, by producing a moist surface, and by assisting Nature in her operation, by gently stimulating the part, I have found very beneficial. The muriatic acid bath has been found to afford relief, probably in the same manner.

Gout being an inflammation of the nerves, the increased heat and pain are no doubt occasioned by an accumulation of electric matter. In the treatment of gout, it is therefore of consequence to produce a moist state of the skin of the affected part, in order to favour the escape of this active principle. Gently rubbing the surface of the affected part with the soft electric brush, in the manner recommended for rheumatism, by conducting superabundant electric matter, I have found highly beneficial, and in many instances to allay the pain in a few minutes.

An American physician some time since recommended the hop as a remedy for gout. In consequence of its anodyne property, it may in some degree assuage the pain; but as a stomachic medicine, it is very inferior to columbo or camomile flowers. It has been observed by an experienced physician, that gouty people who have been in the habit of using malt liquor strongly impregnated with the virtue of the hop, generally die suddenly.

Gouty subjects are much affected with inflammable gas in the intestines, the expulsion of which uniformly affords relief; and it is not unworthy of notice, that this air is discharged from the system in greater quantity as the fit approaches to its termination; its free expulsion I have therefore always considered of a favourable import. The prevention of such an accumulation

certainly of some importance in the treatment of gout. The Jamaica ginger powder, for this purpose, has answered much better than any other aromatic, on account of its warming and invigorating the stomach and bowels, without increasing that feverish state of the constitution which spirituous liquors and the spices, which abound with an essential oil, are very liable to do. The Jamaica ginger has been much esteemed as a remedy for gout by some practitioners; and instances have been adduced in which it proved highly beneficial, particularly in the case of Sir Joseph Banks, by Mr. Stenhouse, which brought it into general use. In the prevention of gout it is a very valuable medicine; but during the paroxysm, or when the system is attended with much fever, or plethora, the propriety of exhibiting it in the dose recommended by Mr. Stenhouse is much to be questioned.

Gout being an inflammation of nerves, the passions of the mind have very great influence on it. Van Swieten relates, from Hildanus, that a man, disguised to represent a ghost or spectre, took another, labouring under a gouty paroxysm, out of his bed, and carried him upon his back down stairs, dragging his feet and legs, which were the seat of his pain, down the steps, and placed him at last on the ground. The man thus treated immediately recovered the use of his limbs, and ran up stairs again with great swiftness, and under the strongest impression of terror. After this incident he lived many years free from any symptom of the gout. This celebrated author also relates a case of a man being cured by joy: "A person," says he, "who had for forty years been afflicted with the gout,

was condemned to capital punishment, and in consequence thereof led to execution. Just when he expected death, he received an unhoped-for pardon, which affected his limbs in such a manner as to restore to them activity and strength, whereas before that event their use was nearly lost:" this person, as well as the other, lived many years totally free from the gout: and that celebrated physiologist, Haller, quotes a case still more extraordinary, of a cure of the gout by a violent fit of anger. From the influence of the mind on gout, we learn that it is a disease of debility; for the stimulating passions are uniformly beneficial, while the depressing passions are not incapable of bringing on the paroxysms by prolonging it. These effects favour the theory of Cullen, of the inflammation being an operation of Nature to restore vigour to debilitated or impaired nerves.

With respect to the management of the mind during a paroxysm of gout, the most judicious practice is, perhaps, not to excite, but to moderate such passions as are symptoms of the disorder itself; and to endeavour to restore, by any safe means*, that calmness and tranquillity of mind which those who are subject to the gout experience on the going off of the fit.

REGIMEN.—The diet, during a paroxysm of the gout, must also be regulated according to the patient's accustomed mode of living, the state of the constitu-

* Charms were as much in use for the gout among the physicians of antiquity, as for any other disease; and perhaps, when we consider the periodical nature of the complaint, we may not entirely discredit their efficacy.

on, and the violence of the symptoms. If the patient have been in the habit of indulging in high-seasoned dishes and the free use of spirituous and vinous liquors, this is not the time to abandon them entirely, particularly if he be affected with symptoms of indigestion, or the powers of the system be reduced by repeated attacks of gout, or age: they, however, should be allowed in moderation. In other cases a new regimen should be strictly adhered to, and an abstinence from spirits and fermented liquors should also be enjoined.

Water, purified by distillation, is recommended by Dr. Lambe, as a common beverage for gouty patients. This author has lately published many instances in which its adoption was attended with the most decided and permanent advantage.

When any swelling or stiffness of a joint remains after the fit has ceased, it may be removed by the diligent use of the electric brush, gentle exercise of the parts; and, in case it prove obstinate, the following liniment may be well rubbed over the part for half an hour, and afterwards washed off with warm water, and the part wiped dry:—

Take of olive oil, an ounce and a half; vitriolic acid, two drachms.

Drop the vitriolic acid into the oil by degrees, and, after every ten drops, shake the bottle.

PREVENTION.—The prevention of gout may be best effected by regimen, and by attention to the digestive organs. Temperance, and exercise proportioned to the strength of the patient, will conjointly prove the best preventive. Accustomed habits of high-seasoned dishes and spirituous and vinous liquors,

by over-stimulating the nervous system, and secondarily inducing nervous debility, should be *gradually* abandoned, particularly if the patient be advanced in life, or his constitution much debilitated. As the quantity of cordials and rich dishes is diminished, so should the degree of exercise be increased. If a gouty patient have resolution to avoid the temptations of the table, and to reduce by degrees the quantity of wine to two glasses a day, he may still have little cause to regret his former indulgences. Particular attention should be paid to the state of the digestive organs, and especially to the prevention of acidity in the stomach; on any symptom of indigestion, it would therefore be advisable to take a dose of the Cathartic Pills, No. 84, and the Compound Tincture of Ginger and Camomile, No. 7, occasionally, or a small teaspoonful of ginger powder two or three times a day. It would also be proper to avoid all kinds of fermented liquors, and to take for the common beverage pure water. The instructions given for the treatment of indigestion, equally apply to the prevention of gout.

As there is a disposition in gout to return in spring and autumn, greater attention to an abstemious diet at those periods will be particularly necessary. The pills recommended, No. 84, page 75, and the solution of Prepared Natron, No. 60, the Tincture of Ginger and Camomile, No. 7, and Sassafras Cocoa (see page 100), should also be resorted to on any symptoms denoting the approach of a paroxysm, by which means the recurrence of the disease may be generally prevented. The feet should always be kept

and warm by means of flannel, or horse-hair socks ; flannel next the skin will likewise be proper.

Of Atonic Gout.

The cure of this species of gout consists in improving the general health of the patient ; for this purpose Stomachic Mixture, No. 61, or two teaspoonfuls of volatile tincture of cascarilla, should be taken with infusion of Jamaica ginger, or the Compound Tincture of Jamaica Ginger and Camomile, No. 7. In case of nausea at the stomach, an emetic of ipecacuan Powder, No. 23, and a dose of equal parts of Tincture of Senna, No. 8, and Tincture of Rhubarb, No. 4, should precede the use of these medicines. A frugal diet and moderate exercise are indispensably requisite. The feet should be kept warm by the use of flannel socks and cork-soled shoes.

Of Retrocedent Gout.

When gout affects the stomach and intestines, relief should be attempted without delay, by the free exhibition of warm brandy-and-water, with a little ginger powder ; and if they do not prove sufficiently potent, Rhenish spirit must be employed. A dessert spoonful of Theriacal Wine has, in this case, answered very well, to which half an ounce of paregoric elixir will prove a useful addition. The bowels should be fomented, the feet put in warm water, and afterwards rubbed with the flour of mustard-seed. When gout attacks the head, the same means are to be pursued, with the addition of a large blister to the scalp. A strong mustard poultice to the feet may likewise be sub-

stituted for the warm water. When it affects the lungs, half an ounce of the paregoric elixir, with a teaspoonful of ether and sal volatile, should be given occasionally; a blister applied over the breast-bone, and a mustard poultice to the feet.

Of Misplaced Gout.

When, instead of the usual determination to the joints, the inflammation falls on the lungs, or any internal part, it often requires to be treated as a *primary inflammatory* affection, by blood-letting, application of blisters over the part and to the extremities, and the use of the aperient and sudorific medicines. But these cases are always so much involved in ambiguity as to render them very improper for domestic medicine: they often perplex even practitioners of experience; and I have no doubt but by the injudicious exhibition of cordials in one case, and bleeding in another, many lives have been destroyed. Nothing, therefore, should be done (unless in cases of great emergency) without the sanction of a medical man of experience and judgment. If, however, the life of the patient be in imminent danger, and no experienced practitioner be at hand, a teaspoonful of spirit of sal volatile, and two of ether, may be given in cold water, and the Mustard Poultice, No. 111, page 82, applied over the stomach, and to the feet.

OF THE GRAVEL AND STONE.

* The gravel consists in small sand-like concretions, formed in the kidneys, and evacuated with the urine.

passing through the tubes (termed ureters) from the kidneys to the bladder, they often occasion a degree of pain, more or less acute, according to the size and form. When a piece lodges in the bladder, it gradually enlarges, and forms what is termed the *Stone*, which, when of a smooth surface, is attended with very trifling inconvenience, till, from its weight and size, it produce mechanical inconvenience, such as numbness in the thighs, and spasms in the calves of the legs, in consequence of compressing the nerves leading to those parts. When the surface of the stone is jagged, or its form angular, it often excites considerable irritation and mischief in the bladder, occasioning slimy discharge with the urine, and not infrequently a quantity of blood, a constant inclination to make water and to go to stool, attended with straining, and often very acute pain. Men are more subject to stone than women, in consequence of the sheath of the latter more readily admitting of the accumulation of calculous concretions than that of the former.

(CAUSE.—Hippocrates was the first who observed that these concretions were the consequence of hard water; and this opinion has been very generally adopted. Dr. Lister has recently confirmed it by an observation, that the inhabitants of Paris, who use such *hard* water in their aliment and beverage, are peculiarly subject to this disease; and Dr. Percival informs us, that a gentleman and lady in Manchester, who had suffered much from gravel, were greatly benefited by discontinuing the use of their pump-water, which was unusually hard, and drinking in its

stead the *soft* water of a neighbouring spring. So beneficial was this change to the lady, that she did not experience the least symptom of the disorder for upwards of two years.

Many practitioners, from an analysis of the stone, have attributed its formation to the use of *acids*: were this, however, really the case, we should expect to find the disease most prevalent in those counties where an acid beverage is principally employed. Cider, the common beverage in Herefordshire*, is generally drunk in a state nearly approaching to vinegar, and yet in no county in England are calculous complaints more rare. Some authors attribute the disease to impaired digestion; to which may be added a deranged state of the secretory vessels of the kidneys, producing new combinations, the effect of which is the production of calculous matter.

The stone which is formed in the bladder of animals being of a regular structure and composed of animal matter, may be considered of the nature of a parasitical animal or independent life, deriving its support from the urine.

TREATMENT.—When the gravel or a small stone is passing from the kidneys to the bladder, it often produces considerable pain, frequently attended with nausea or vomiting, which constitute what is termed a fit of the gravel. During this period the principal object of practice should be to relax the parts, and thus obviate

* It is worthy of remark, that a case of stone has not occurred at the General Hospital of this county since its establishment, being a period of thirty years.

Inflammation, by the loss of blood from the arm, particularly if the patient be of a plethoric habit; the bowels could be rendered soluble by doses of Castor Oil, No. 3, and lavements of gruel, the latter of which will not only assist the operation of the castor oil, but act as a fomentation to the parts affected; for this purpose, the fluid should be injected by means of a large syringe, but it may be thrown higher up into the bowels than the bladder and pipe usually employed. The warmth, by relaxing the system, will prove a great auxiliary to these means. After the operation of the castor oil, from ten to twenty drops of laudanum may be given, according to the severity of the pain.

The diet during the fit should be low, and the beverage the almond emulsion, barley-water, decoction of marshmallow root, or linseed tea.

When the calculus has passed into the bladder, which is known by the cessation of the spasms, the patient should take the pills, No. 81, with the aerated soda-water, as recommended under the head of Prepared Natron, No. 60. Dr. Falconer of Bath has published several cases in which this water proved very beneficial; and in my own practice I have found it to succeed better than any other diuretic medicine. The carbonate of natron is also a very excellent remedy, and probably more powerful than the aerated soda-water (see Prepared Natron, No. 60). An infusion of the dried carrot seed has been found to afford great relief in gravel; and the leaves of the bear's whortleberry have certainly proved useful in many instances of stone and gravel, particularly when attended with great pain, and tee-coloured or bloody urine. Two or three ounces

of the following infusion of these leaves may be taken two or three times a day :—

Take of the leaves of the bear's whortleberry, three drachms ; infuse in a pint of boiling water till cold, then strain for use.

Spirit of turpentine, balsam of copaivi, sweet spirit of nitre, and soap lees, have occasionally proved beneficial, and, after the failure of the preparations of natron, are well worth a trial.

Distilled water has proved in many instances so very beneficial in gravelly complaints, that I am inclined to believe, if a person were to make use of no other beverage, and employ it in every article of diet, the complaint would entirely leave him.

OF GUTTA SERENA.

Gutta serena is a species of blindness, without any apparent disease or fault in the eye, except a dilatation of the pupil. When there is a *total* loss of vision, the disease is said to be *perfect*, and imperfect when there is a power of distinguishing light from darkness.

CAUSES.—This disease consists in a paralytic affection of the optic nerve, in consequence either of compression, debility, or poison.

TREATMENT.—Although three causes are enumerated as producing this disease, the mode of treatment to be pursued for the recovery of the optic nerve is the same. A seton or a perpetual blister to the nape of the neck should be employed, and the discharge kept up for at least two or three months, unless contra-indicated by *increasing* debility of the system. As an internal reme-

mercury, in alterative doses, is the most efficacious ; and as its good effects depend more on its removing obstruction than on stimulating the nerve, its use should be persevered in till the constitution be sufficiently under its influence (known by a slight swelling of the gums and an increased secretion of saliva), as there are many instances on record that have been cured by salivation after other medicines had failed. The muriate of mercury is generally recommended ; but calomel will certainly have as good an effect, and, on account of being much milder, is, in domestic practice, entitled to the preference. Calomel may be administered by making half a drachm into twenty pills with a little conserve of roses ; one of which may be taken every forenoon and at bed-time, till the gums become swelled and tender, when they should be discontinued for a week. It will likewise be proper to snuff up the nostrils a little of the compound asarabacca powder every night : or the following powder, which is much recommended by Mr. Haare :—

Take of turbith mineral, one grain ; liquorice powder, eight grains :

which that celebrated oculist advises one-fourth to be snuffed up the nostrils once or twice a day.

As a stimulating application to the balls of the eyes, an infusion of Cayenne pepper (made by steeping eight grains of the pepper pods, bruised, in half a pint of cold distilled water in a close vessel for three hours, when it should be filtered through paper for use) has been employed with success ; two or three drops are to be conveyed between the eye-lids twice a day, and to be persisted in for a considerable time. It appears this

application has been used with success at the Liverpool Infirmary. The pain it excites is, however, often so acute, as to require great fortitude in the patient to bear it for a sufficient length of time. When the patient will not submit to it, the electric sparks applied to the eyes twice a day, for six or eight minutes, will often answer as well, and perhaps in most instances better. If an evident distension of the vessels of the head exist, the loss of blood from the temple, either by opening the temporal artery, or by leeches, or from the nape of the head by cupping, will be necessary. If accompanied with general plethora, twelve ounces of blood should be taken from the arm; and in case of suppression or retention of the menstrual evacuation, the loss of blood will be proper, either local or general, according to the state of the system. In this latter case, the remedies recommended for the retention of the menses should be employed. (See Menstruation.)

OF HEAD-ACH.

In the introduction to the first part of this work, I have noticed the important offices of the brain in the animal economy, and also the causes which disturb its function.

No complaint is perhaps more prevalent in this country than head-ach. It is generally not considered a *primary* affection, but as arising from a variety of causes, such as general or *local* plethora, in consequence of suppression of customary evacuations and obstructed perspiration. When such head-ach occurs in a person disposed to apoplexy, and attended with giddiness,

lating sensation in the head, and noises in the ears, it could be considered a *premonitory* symptom of apoplexy, and the preventive means recommended for that disease, page 190, should be employed without delay.

Head-ach is frequently of a rheumatic nature, when the membrane covering the skull is principally affected. In this case the patient will experience a slight pain on pressing the scalp: such head-ach often alternates with pain in the shoulder, or some other parts of the body.

Head-ach is very often the consequence both of an *increased* and *diminished* irritation of the brain, when it is termed *Nervous Head-ach*. This species is generally produced by close application of the mind, particularly to abstruse subjects. In consequence of the great sympathy that exists between the womb and brain, females are very subject to this complaint. With them it is often periodical, and sometimes very regular in its diurnal attacks. This species is often attendant on debility of the system, and is produced by great evacuations, as loss of blood, frequent suckling of children, &c. (See *Nervous Diseases*.)

Head-ach is likewise very often symptomatic of indigestion; for so great is the sympathy between the brain and stomach, that it is often difficult to determine which is really in fault. For people who are subject to preternatural determination of blood to the brain, are always more or less affected with indigestion, nausea, &c. in consequence of the slight compression of the brain from distension of blood-vessels. When it arises from a foul state of the stomach, it is generally termed *Sick Head-ach*, and is speedily relieved by vomiting. Nervous head-ach is also often connected with flatulence in the intes-

tines. How this air should produce head-ach is difficult to say; but certain it is, that the most obstinate head-achs are often relieved by its expulsion from the intestines. Those who have had an opportunity of observing the morbid appearances of the brain, so frequently exhibited on dissection, will neither be surprised at the frequency or the obstinacy of complaints of the head; but, on the contrary, from the disease that is so often found in the membranes and the tumours in the substance of the brain, that the sufferings of the patients were not much greater. A deposition of earthy matter in the coats of arteries is often the cause of head-ach; and I believe the blood-vessels are more frequently the seat of the pain than the brain itself. The blood-vessels are not only subject to a chronic inflammation, of which the deposition of earthy matter is the effect, but also to ulceration, which by destroying the coats of the vessel, blood becomes effused within the head, and fatal apoplexy is produced: hence apoplexy is not always the consequence of distension of the vessels, as is generally imagined.

TREATMENT.—In cases of head-ach it is a very essential point to ascertain whether the complaint be super-irritative or sub-irritative, and whether the morbid irritation commenced in the brain or be sympathetic; if it be super-irritative, or, in other words, if it arise from increased vitality or local or general plethora, the loss of blood will be proper, either by leeches or cupping; which, with the use of the Cathartic Pills, No. 84, page 75, and a spare diet and exercise, will generally effect a cure. If it resist these remedies, a blister should also be applied to the nape of the neck, and the feet immersed for ten or fifteen minutes in warm water, and afterwards

kept warm by flannel socks. Ether may likewise be applied to the temples and forehead, and cold water to the head. People subject to this species of head-ach will receive great benefit from the application of cold water to the head every morning, and by keeping the feet warm with flannel socks. The means recommended for the prevention of apoplexy, page 191, are applicable to this species of head-ach.

For the *rheumatic head-ach*, which generally occurs on a change in the atmosphere, and particularly during the prevalence of the north-east wind, the volatile tincture of Guaiac Gum, as directed No. 20, page 26, warm mentations, the Cathartic Pill, No. 84, page 75, small doses of the Antimonial Powder, No. 37, every night at bed-time, and the warm-bath, are the most powerful remedies. If it be attended with general effluviæ, the loss of blood by leeches or cupping, and a blister to the nape of the neck, will also be proper. The aperient sulphureous water, taken as directed page 9, has in many instances entirely cured this species of head-ach, after other apparently more active medicines had failed. (See Rheumatism.)

For the cure of the sub-irritative *head-ach*, or head-ach arising from relaxation or debility*, the exciting cause should be avoided, and whatever is likely to agitate the mind. If the digestive organs be affected,

It is sometimes difficult to say, whether head-ach be super-irritative or sub-irritative. If it be attended with redness of the eyes, giddiness, pulsation, and an aggravation of pain on sneezing, there can be no doubt but that it is of the former kind; but if the eyes be pale, and the patient experience relief on sneezing, it may be considered of the latter kind, or it is generally termed *nervous*.

an emetic should precede the exhibition of other medicines; after the due operation of which the following mixture will prove highly beneficial:—

Take of essential salt of the rhatany root, three drachms; camphorated julep, three ounces; compound spirit of ammonia, three drachms; mint-water, eight ounces. Three tablespoonfuls to be taken three times a day.

If the patient be subject to costiveness, three drachms of the vitriolated magnesia may be added to the above mixture; or in case of acidity predominating in the stomach, two drachms of the prepared natron. I have had repeated opportunities of giving this medicine a trial in very obstinate cases of nervous head-ach, and in no one instance has it failed to produce the desired effect.

Ether may likewise be applied over the part of the head most affected, as directed page 19, and a little of the following powder snuffed up the nostril once every twenty-four hours, which, by exciting sneezing and producing a discharge from the inner membrane of the nostrils, often affords instantaneous relief:—

Take of the leaves of tobacco, one ounce; ditto of rosemary, six drachms; ditto asarabacca, two drachms; white hellebore root, two drachms.

The articles should be carefully dried and reduced to fine powder.

If the patient be troubled with flatulency, a little ginger powder may be taken in the common beverage.

When head-ach arises from indigestion, which is a very common cause of complaints of the head, the directions for the treatment of indigestion will succeed in curing it. (See Indigestion.)

Electricity has been much recommended as a remedy for head-ach, and the application of the electric aura to the head has often given relief; it, however, frequently recurs with increased violence after its use: and when the disorder has arisen from fulness of the blood-vessels of the brain, it has so increased the determination of blood to the head as to produce apoplexy.

Head-ach is sometimes occasioned by an accumulation of electric matter, in consequence of the dryness of the scalp and surface of the body not allowing a proper medium for its passing off. This species is generally attended with a considerable disengagement of air in the intestines. The application of warm water to the head, or brushing the hair with the electric brush (as recommended for gout), generally afford immediate relief in this case.

The application of ether to the temples, washing the head with cold water, the cephalic snuff (noticed above), a blister to the nape of the neck, keeping the feet warm by wearing flannel socks, attention to the state of the digestive organs, and avoiding full meals and spirituous or vinous liquors, with moderate exercise, will, generally speaking, prove highly beneficial in mitigating, if not effectually curing, habitual or chronic head-achs, from whatever cause they may arise; but in acute head-achs from obstructed perspiration, or attendant on fevers, those remedies may not be proper, particularly the application of cold-water, ether, or the sneezing powder. The cure of such head-ach must depend on the nature of the complaint of which it is a symptom. In chronic or periodical head-ach, it is likewise of consequence to attend to the secretions of the head, par-

ticularly of the ears and nostrils: by increasing the former by introducing a little lamb's wool moistened with camphorated oil, and the latter by the cephalic powder before noticed, the most obstinate head-achs have been effectually cured; and I have known many instances of the most violent head-ach terminating in a sudden secretion of a quantity of wax in the ears. Such directions may appear trifling to many; but in the cure of head-ach they are often of greater efficacy than the most potent medicine.

OF HEARTBURN.

Heartburn consists in an acute burning sensation about the pit of the stomach, sometimes attended with great anxiety, difficulty of breathing, acid eructations, flatulence, inquietude, and retching to vomit. It is generally the consequence of bad digestion, and a frequent attendant on pregnancy.

CAUSES.—The acidity producing the pain in the stomach, commonly, but improperly, termed heartburn, has been supposed to be the effect of fermentation of vegetable food, in consequence of weakness of the digestive organs; but it is very doubtful whether fermentation ever takes place in the stomach to that degree to produce an acid. Some days are necessary for the production of vinegar by fermentation; but very frequently within a few minutes after taking a glass of weak wine, sour belching will denote the existence of a strong acid in the stomach. The difference of the acids affords another objection. The acid produced in the stomach yields a taste very dissimilar to

that of vinegar: those who are subject to the unpleasant occurrence of acid eructations, or vomiting, know that the taste is very different from that of vinegar. The acid formed in the stomach is rather of an animal than vegetable nature. A deficiency of the mucus which defend the coats of the stomach, the irritation of pungent or spicy aliments, and ulceration or organic diseases of the stomach, are causes of heartburn.

(CURE.—The treatment of heartburn must depend on the exciting cause. When it is produced by acidity in the stomach, and the bowels are confined, or in a singular state, Magnesia, No. 1, or Prepared Natron, No. 60, or Salt of Wormwood, No. 21, taken as directed under their respective heads, will, by neutralizing the acid, speedily relieve the pain; but when the bowels are too much disturbed, or the patient subject to habitual purging, the Cretaceous Powder, No. 29, or Lime-water, page 96, will answer best; and, as the stomach is always more or less in fault, some bitter medicine should accompany the use of these remedies, in order to prevent its recurrence: for this purpose the following mixture, if not attended with purging, will prove very beneficial, after the operation of an emetic:—

Take of prepared natron, No. 60, a drachm and half; sp. sal volatile, one drachm; tincture of ginger and camomile, No. 7, three drachms; pure water, seven ounces. Two tablespoonfuls to be taken three times a day.

If the patient have an aversion to medicine in a liquid form, the following pills may be substituted for the mixture:—

Take of extract of camomile flowers, one drachm; dried natron, half a drachm; powdered rhubarb, one scruple; oil of caraway seeds, eight drops.—Mix well together, and divide into twenty-four pills, two or three of which are to be taken twice a day.

A draught of spring water generally affords relief, by diluting the acidity in the stomach. The diluted vitriolic acid, taken as directed No. 18, will often succeed in curing heartburn after the absorbent and alkaline remedies have failed to remove it entirely by preventing the formation of gastric acid. The same rules as to diet and exercise should be observed, as recommended for indigestion.

If the pain should recur, notwithstanding the use of these remedies and proper attention to diet, and the patient be advanced in years, an organic disease of the stomach may be suspected, when one of the following pills should be taken every night for a week, and repeated every ten days:—

Take of prepared calomel, seven grains; extract of poppies, one scruple.—Mix well together, and divide into seven pills.

When a deficiency of mucus is the cause, animal jelly will be proper; and when it occurs in a gouty habit, two teaspoonfuls of the volatile tincture of cascarilla, in a wineglassful of lime-water, every three or four hours, will generally afford relief. (See Prevention of Gout.)

When it accompanies pregnancy, the solution of Epsom Salt, as directed page 8, with the use of the Diluted Vitriolic Acid, No. 18, has in my practice uniformly succeeded: but such cases often require a variety of treatment, according as it is attended with a relaxed or costive state of the bowels, debility, and plethora.

OF HECTIC FEVER.

This fever appears to be produced by pus conveyed to the mass of blood by the absorbent vessels; hence it is attendant on ulcerations of the lungs, internal suppurations, the formation of matter in the joints, and sometimes large abscesses on the surface of the body. When the symptoms run high, it often resembles an intermittent fever, and, by unskilful practitioners, is not infrequently mistaken for it. The fever returns every day, with noon and evening accessions. In the morning, there is a considerable *remission*, but very rarely a *complete intermission*. It is for the most part attended with profuse nocturnal perspiration, and the urine on standing deposits a considerable sediment. (See page 248.)

OF HICCUP, OR HICCOUGH.

Hiccup is a spasmodic affection of the midriff, and generally arises from irritation produced by acidity in the stomach, error of diet, poison, &c.

CURE.—When acidity is the cause, twenty-five drops of Sal Volatile, No. 13, with a teaspoonful of Magnesia, No. 1, in a glass of pure water, will afford relief, and recurrence may be prevented by the use of the Tonic Mixture, No. 77, page 74. When it is the consequence of improper food, an emetic will be necessary; and when produced by poison, the means recommended for counteracting the effects of poison should be immediately restored to.

If it should continue obstinate, or amount to spasms,

a teaspoonful of ether, with eight drops of laudanum, in a glass of cold water, will prove the best remedy. Ether may likewise be applied to the pit of the stomach, and the feet immersed in warm water.

This affection is often cured by whatever *suddenly* arrests the attention, whether the passion connected therewith be of the stimulating or debilitating kind.

In children hiccup is often produced by the irritation of acidity in the stomach, in consequence of being over-fed; in which case magnesia and rhubarb, in a little mint-water, afford the best remedy; but when it occurs in bowel complaints of long standing, the compound cretaceous powder will prove more beneficial. People subject to hiccup should particularly attend to the directions given for the prevention of indigestion. (See Indigestion.)

OF THE HOOPING OR CHIN-COUGH.

This disorder is infectious; and, the system once infected being secure from future attacks, children are generally the subjects of it.

SYMPTOMS.—It commences with the symptoms of common cough, which gradually become more violent till it is evidently convulsive, the patient, at times, not being able for a considerable interval to inspire; and when inspiration is effected, it is attended with a shrill kind of noise, like the crowing of a cock. These fits, for the most part, occasion so great a determination of blood to the head, that a small vessel of the membrane lining the nostrils often gives way. The eyelids and eyes appear much swelled, and the fit often

terminates in vomiting. It is seldom attended with continued fever.

(CAUSE.—It is produced by the action of a contagious miasm, which, in the first instance, excites irritation in the membranous lining of the windpipe and its branches, and afterwards extends to the midriff, and the muscles of the chest engaged in respiration. The seat of the morbid irritation is the same as that of asthma, and its effects are somewhat similar.

TREATMENT.—The mode of treatment must be regulated by the state of the constitution, for the weakly and robust are equally liable to receive the infection. If the general health of the patient be good, and particularly if the system be plethoric, the extraction of blood by leeches or cupping will be necessary, to prevent the violence of the cough doing mischief to the brain or lungs.—The cure may then be attempted, first with an emetic of the Tartarised Antimony Wine, No. 16, and afterwards the mixture*, No. 76, page 73. The Pectoral Plaster, No. 108, page 81, should be applied to the pit of the stomach; or, if attended with pain in the chest, a blister over the breast bone or between the shoulders. In the early stage of the complaint, these remedies will generally prove sufficient to effect a cure; but if by neglect the disease be once established, it will often run its course in defiance of the most powerful medicines.

The efficacy of this medicine principally depends on the *asafœtida* it contains, which, on account of its nauseousness, is generally rejected by children. In such case it may be given clysterwise, by dissolving ten grains of *asafœtida* gum in two or four ounces of gruel.

This disorder may often be effectually cured by putting the system under the temporary influence of a vegetable poison; for this purpose the extracts of hemlock, the henbane, and deadly night-shade, have been employed by different practitioners, and each has its advocates. As children are differently affected by these medicines, it is impossible to give a general form for their exhibition; for unless a certain effect be produced in the system to counteract the action of the contagion, it will prove of no avail. The hemlock is much recommended by some writers who prefer the extract; but the powder of the herb is unquestionably the best preparation, and the only one to be relied on. Some physicians prescribe it with other medicines, as syrup of poppies, ipecacuan, and oxymel of squills; but as they may destroy its peculiar properties, it should be given only in a very simple vehicle. I have generally employed the following form; and when properly managed, so as to affect the system, which is manifested by nausea and giddiness, I have never known it to fail:—

Take of powdered hemlock leaves, one scruple; mint-water, two ounces; simple syrup, two drachms.—Mix. A teaspoonful to be given three times a day, to a child of any age, increasing the dose each time about ten drops, till it produce the effects above noticed.

An emetic should always precede the use of this medicine; and if acidity prevail in the stomach, the occasional exhibition of magnesia, as directed No. 1, or Prepared Natron, No. 60, will also be necessary; to which a little rhubarb powder may be added in case of costiveness. The extract of tobacco, in the dose of one or two grains, dissolved in a little simple water, is

A very favourite remedy for hooping-cough with many physicians in Germany. It is a more potent remedy than hemlock, henbane, or the deadly night-shade, and probably not more efficacious. The application of a blister over the breast bone, or between the shoulders, is more particularly necessary if the child be born of consumptive or scrofulous parents, as in such subjects the cough is most likely to prove obstinate, or to produce some serious mischief.

When the disease is sub-irritative, *i. e.* attended with general debility and depletion, the loss of blood and blisters are improper: in this case, the rhatany root, or bark, combined with soda, will prove very beneficial, in the following form:—

Take of decoction of rhatany root, or of Peruvian bark, six ounces; prepared soda, one drachm; tincture of cardamon seeds, half an ounce.—Mix. From one to two tablespoonfuls to be taken three times a day.

When the disease has induced considerable degree of debility, a change of air is generally very beneficial, as well as cold bathing.

It requires, however, much judgment to determine when such medicines are proper; for, although the patient should be much reduced, there may be a preternatural distension of the vessels of the lungs, or disposition to inflammation, in which cases any strengthening medicine would assuredly prove very injurious.

Dr. Hugh Smith, after observing that emetics occasionally repeated are of great service, and blisters when the symptoms are urgent, directs the following:—

Take of musk julep, six ounces; paregoric elixir, half an ounce; volatile tincture of valerian, one drachm. From one to three tablespoonfuls to be taken every three or four hours.

The tincture of artificial musk has been lately much recommended as a specific for whooping-cough. It is given in the dose of ten to twenty drops, in a little barley-water, two or three times a day.

The acetated ceruse, when *judiciously* administered, I believe to be the most efficacious remedy for whooping-cough with which we are acquainted. The following is the best form for administering it:—

Take of acetated ceruse, four grains; syrup of poppies, two drachms; dill-water, two ounces.—Mix. Two teaspoonfuls to be given to a child of two years to ten, and a dessertspoonful to an adult, every five hours.

This mixture generally succeeds in curing the disease in three days, after which its use should be gradually discontinued. It is a very powerful medicine, and should be employed only under the direction of a medical man, as in the hands of ignorance it may be productive of bad effects.

The diet should be adapted to the strength and age of the child. In general, equal parts of barley-water and fresh milk will be sufficient.

When the disease resists the foregoing treatment, the Basilic Powder, as directed No. 36, will prove very beneficial, especially if the patient be affected with worms*. When the cough is become of a chronic nature, it may often, if not always, be cured by keeping up a healthy digestion, and by adopting a regimen that is not likely to disorder the stomach. (See Indigestion.)

* The existence of worms in the stomach is often a cause of the *obstinacy* of this disease. I have known several instances of its ceasing soon after an evacuation of worms.

When this disease proves fatal, it is either by producing convulsions or inflammation of the lungs or brain; and in scrofulous habits, consumption of the lungs; the prevention of which should be a principal object of practice.

OF HYPOCHONDRIACISM.

This disease, commonly called vapours or low spirits, arises from sub-irritation of the cerebral system, affecting the general health and disturbing the intellectual functions of the brain. It is distinguished by a concurrence of the following circumstances:—A languor, listlessness, or want of resolution and activity, with respect to all undertakings; a disposition to seriousness, sadness, and timidity, as to all future events; an apprehension of the worst or most unhappy state of them, and therefore often, on slight grounds, a dread of great evil. Such persons are particularly attentive to the state of their own health, and to the smallest change of feeling in their bodies: from any unusual sensation, perhaps of the slightest kind, they apprehend great danger, and even death itself; and, in respect to all these feelings and apprehensions, there is, for the most part, unfortunately, the most obstinate belief and persuasion. It is generally attended with symptoms of indigestion, but not always; and sometimes with melancholy.

This turn of mind appears in youth as well as in advanced age; and when it has once taken place, it generally goes on increasing.

TREATMENT.—No disorder admits of greater scope

for the management of the passions than hypochondriacism, which manifests itself in its effects on the mind and spirits. Greater delicacy, however, is here requisite than is generally allowed by practitioners. It is the practice of such patients often to change their medical attendants, which is certainly not altogether inconsistent; for if the physician do not admit the *reality* of the disease, it is not to be supposed that he will take much pains in curing it, or to avert a danger of which he entertains no apprehension. The sufferers are mostly of a gloomy disposition, and subject to great despondency of mind concerning their own situation in point of relief, and want cordials and exhilarating remedies to the mind as well as the body. To treat such disorders as merely imaginary, generally irritates choler, and impresses a belief that their friends have but little concern for their safety and welfare; and, on the other hand, to coincide in opinion concerning the melancholy situation of such persons, depresses the spirits, and tends above all things to aggravate the complaint. The most judicious course is to endeavour to excite the fortitude of the sufferers, by representing to them it is unworthy a brave and resolute character to be always complaining of misfortunes which are the common lot of mankind; that it is more manly to struggle with ill fortune, than to sink without resistance beneath its pressure. We should also endeavour to abstract the mind as much as possible from reflecting on their own situation and condition of health.

The firm persuasion that generally prevails in such patients, do not allow their feelings to be treated as

imaginary, nor their apprehensions of danger to be considered as groundless, though we may be persuaded it is the case in both respects. Such patients are not to be treated either by raillery or reasoning. Dr. Alexander observes, the best way is to keep the mind closely engaged in some useful or agreeable pursuits; hence we learn the superior advantages of those situations in life which more immediately call for intellectual exertions and bodily exercises. "Industry seldom fails to place above want, and activity serves us instead of physic." In fact, none are so wretched as those who have nothing to do: they are useless to others, and a burthen to themselves*. Constantly impressed with the apprehension of some imaginary evil, they either become the victims of despondency, or the dupes of ignorant and unprincipled pretenders to physic, whose sole aim is to enrich themselves at the expence of the follies or convulsions of mankind†.

As it is the nature of man to indulge every present motion, so the hypochondriac cherishes his fears, and attentive to every feeling, finds, in trifles light as air, a strong confirmation of his apprehensions; his cure, therefore, depends upon the interruption of his attention, by diverting it to other objects than his own feelings. Whatever aversion from application to any kind may ap-

* "Absence of occupation is not rest;—

"A mind quite vacant is a mind distressed!"

† If, in any case, the fraud of what is termed a *placebo* be allowable, it seems to be in treating hypochondriacs, who, anxious for relief, are fond of medicines, and though often disappointed, will still take every new nostrum that can be proposed to them.

pear, there is certainly nothing more pernicious to them than absolute idleness, or a vacancy from all earnest pursuits. It is owing to wealth admitting of indolence, and leading to the pursuit of transitory and unsatisfying amusements, or to that of exhausting pleasures only, that the present times exhibit to us so many melancholy instances of this depraved state of imagination. The mind should not only be diverted from the bodily affection, by employments suitable to the circumstances and situation in life, and unattended with much emotion, anxiety, or fatigue; but also by various kinds of sport and hunting, which, when pursued with some ardour and attended with exercise, if not too violent, are amongst the most useful. Within doors, company which engages attention, willingly yielded to, and at the same time of a cheerful kind, will be always found of great service. Play, in which some skill is required, and where the stake is not an object of anxiety, if not too long protracted, may often be admitted. Music, to a nice ear, is a hazardous amusement, as long attention to it is very fatiguing.

When amusements of every kind are rejected, mechanical means of interrupting thought should be employed. Walking is seldom of this kind; though, as gratifying to the restlessness of hypochondriacs, it has sometimes been found useful. Riding on horseback, or in a carriage of any kind, or sailing in an open boat, on account of engaging the mind, is generally beneficial: but the exercise that will prove most effectual, is that which is employed in the pursuit of a journey; first, because it withdraws a person from many objects of uneasiness and care, which might present themselves at home—secondly, as

engages the person in more constant exercise, and in a greater degree than is commonly taken in an airing at home—and lastly, as it is constantly presenting objects which call forth the person's attention.

The symptoms of indigestion and hysteric complaints so frequently attend this state of mind, although an effect rather than the cause, are objects of practice, inasmuch as they tend to aggravate and realise the false apprehensions of the patient. These secondary affections require the same mode of treatment as recommended for indigestion and the hysteric disease. Warm bathing, and warm tea and coffee, which are hurtful to people with bad digestion, generally afford relief to the hypochondriac.

The ancient physicians referred the cause of this disease to an indolent state of the liver and other viscera situated beneath the spurious ribs, technically termed *hypochondria*; hence it was named by them the hypochondriac disease: and, as these viscera are in all cases more or less obstructed, it will be advisable to administer a alterative aperient medicine with a stomachic, as the following:—

Recipe of Rufus's pill, one drachm; prepared calomel, fifteen grains.—Mix well together, and divide into fifteen pills; of which three may be taken two or three times a week: and three tablespoonfuls of the following mixture two or three times a day:

Recipe of extract of rhatany root, three drachms; sp. sal volatile, four drachms; camphorated mixture, twelve ounces.—Mix.

The rules that are given for the diet of people affected with indigestion, should likewise be observed by

hypochondriacs. (See Indigestion and Nervous Diseases.)

Hypochondriasis is often accompanied with false and perverted notions of the Creator, with gloomy views of life, and a lingering dread of death. On this occasion we can defy the reproaches which are so often thrown out on the *uncertainty* of medicine, and recommend a *certain* cure;—a corroborant for the mind, and a cordial for the heart. If the curiosity of the reader be excited by this declaration, I trust that his hopes will not be disappointed, when I refer him to the doctrine of the New Testament. That doctrine impresses the most cheering notions of the Deity, as the father and friend of man; who is studiously promoting our greatest good in all the varied circumstances of our lives:—it teaches us that we are constantly under his guard and protection; and that even the sufferings which he inflicts, are intended for our benefit. Here we may find a solution for every anxious doubt, and a place of refuge for every intrusive care. Hence we learn that life is only a probationary state; that it must consequently be chequered with good and evil, in order to form a school of wisdom, in which virtue may be disciplined for the fruition of eternity. To that eternity it teaches us that death is the vestibule; and consequently that the termination of our mortal existence, which is often such an object of horror to the hypochondriac, ought to be regarded only as the commencement of unspeakable serenity and joy. But as the melancholy which harasses the peace of the hypochondriac is often shaded with the sombre tint of superstition, those religious books should be particularly perused which, with-

insisting on any points of doctrinal uncertainty, and to inspire a rational and elevated piety, the principles of which consist in the love of God, and in unfeigned good-will to all mankind.

In recommending religion to the attention of a hypochondriac, we should be careful that by seeking to escape one rock we do not split on another. Superstition and enthusiasm are two powerful sources of delusion; and in the hypochondriac, whose intellects are naturally weak, they might produce mental derangement. That devotion is best which is most rational and well founded, and teaches man to regard the moral duties of Christianity. The prevailing temper of the mind is often formed by reason; for nothing can tend more to ennoble and strengthen it than an intercourse with supreme Perfection. The love of God naturally connects itself with the love of man; hence rational devotion humanises our manners, tames our unruly passions, and exalts and expands the mind: it smooths what is rough, and softens what is fierce in our nature; it promotes a humble submission to the decrees of Heaven, and cheerful contentment in our lot in this transitory existence. Although the mind of the hypochondriac appears to be constantly engaged in the means of preserving life, yet, that his friends should suppose that he totally disregards it, he compares it to a "drop of honey in a pint of gall." The stout man regards life, with all its interests, as a very small part of human existence; and, looking forward to eternity to which it leads, discovers fresh subjects of admiration and gratitude.—He says to his Creator, "Let the men of the world have *their portion in this life*; let *mine, to behold thy face in righteousness, and when I*

awake, to be satisfied with thy likeness :" or, as beautifully expressed by POPE—

" This day be bread and peace my lot ;—
All else beneath the sun
Thou know'st if best bestow'd or not,
And let thy will be done."

OF THE HYSTERIC PASSION.

In females the nervous system is more excitable than in males, and in them a great sympathy exists between the brain and uterus, so that from slight irritation in the latter organ, the whole nervous system is often so violently disordered as to occasion the peculiar convulsion and state of mind termed hysteria, or hysteric fits. In males there exists a great sympathy between the brain and genital system; and from an increase of which, with a morbid excitability of the nervous system, arises the disease termed the hypochondriasis of youth.

SYMPTOMS.—The hysteric fit commonly begins with some pain and fulness in the left side of the abdomen, from which a ball* seems to move, with a grumbling noise, into the other parts of the bowels, and making, as it were, various convolutions, seems to move into the stomach; and, more distinctly still, rises up to the top of the gullet, where it remains for some time, and, by compressing the windpipe, gives a sense of suffocation, when the patient is affected with a stupor and insensibility, and the body agitated with various convulsions:

* This sensation is usually termed the *Hysteric Ball*, and is probably produced by a spasmodic contraction of the muscles of the gullet.

commonly the convulsive motion of one arm is that beating the breast very violently and repeatedly with the closed fist. This state continues for some time, with slight remissions and renewals of the convulsive motions; which at length cease, leaving the patient in a stupid and seemingly sleeping state. More or less suddenly, and frequently with repeated sighing and sobbing, together with a murmuring noise in the bowels, the patient returns to the exercise of sense and attention, and generally without any recollection of the several circumstances that had taken place during the fit.

In females this disease occurs from the age of puberty to that of thirty-five years; and very rarely appears before the former, or after the latter of these periods, and generally occurs about the time of menstruation: it affects the barren more than the breeding woman, and the sanguine and robust more than the phlegmatic and melancholic.

It sometimes arises in young women from a peculiar turn of mind, when the passions are high, and the imagination heated*.

TREATMENT.—The morbid irritability of the nervous system attendant on this disease arises both from plethora or increased vitality, and from relaxation or debility; the treatment must therefore be regulated by the state of

* A late author justly observes, "that the novels that fill our circulating libraries, which are read with avidity both by mothers and daughters, under the mask of morality, are more injurious to female virtue than the most openly licentious and modest publications."

constitution. If the patient be in a debilitated state, the fit may be relieved by the anti-hysteric mixture*, No. 65, page 71; to each dose of which, in obstinate cases, a tea-spoonful of ether, and ten drops of laudanum, may be added. The feet should be immersed in warm water, and spirit of hartshorn, or smelling salts, applied to the nostrils, and cold water sprinkled over the face. If the patient be incapable of swallowing, two drachms of the tincture of asafœtida may be administered clysterwise, in half a pint of gruel; and in case the subject be young and plethoric, the loss of six or eight ounces of blood from the arm will be necessary: bleeding, however, should not be employed, without the sanction of a medical practitioner.

Hysteric fits often arise from a disordered state of the digestive organs; and in all cases the nervous system is rendered irritable by it, and hence favouring the hysteric affection. During the absence of the fit, it will therefore be proper to strengthen the stomach, and of course the nervous system, by the use of the Tonic Mixture, No. 77, page 74, as there directed, to which a drachm of prepared natron may be added in case acidity prevail in the stomach. Costiveness should likewise be

* It is remarkable, that the most nauseous medicines in the *Materia Medica* were recommended by the ancient physicians, and are still employed in the treatment of hysterical complaints. As these remedies produce no salutary effect when administered *during* the hysteric paroxysm, it is probable that their operation on the body arises from the disgust they produce in the mind; and as the ancients paid more attention to the management of the mind during disease than the moderns, it was perhaps with this view that they were first prescribed.

viated, by taking every morning a dose of the solution of the Epsom Salt, as recommended page 9: cold bathing will also prove very beneficial, by diminishing the irritability of the nervous system.

If the patient be of a full habit of body, or subject to head-ach from over-distension of the vessels of the brain, it will be advisable to take eight or ten ounces of blood from the arm, and to unload the intestines by the Aperient Mixture, No. 62, page 70. If the affection occur at the period of menstruation, which is generally the case, placing the feet in warm water of about 100 degrees, and the use of an aperient medicine, will supersede the necessity of bleeding.

A morbid sensibility, which always accompanies this complaint, is very liable to be excited by the passions of the mind. The learned Sauvage observes, nothing contributes to aggravate it more than indolence and vacancy of mind. Dr. Falconer therefore judiciously observes, that some interesting pursuit, that will occupy the attention, should by all means be sought and assiduously followed. Even fear itself, gradually introduced, and where no imminent danger is apprehended, has been efficacious in preventing this disorder. The displeasure of a parent, supposed likely to be incurred by the return of the hysteric fit, has contributed to prevent it: and it is noticed by this able writer, that during the troubles in Scotland in the years 1745 and 1746, this disease scarcely made its appearance. Hysteric fits are very apt to recur on the sight of people so affected. Dr. Falconer observes, that he once had an opportunity of seeing an instance of this kind at a public watering-place: —a lady was

seized with hysteric convulsions during the time of divine service; in less than a minute six persons were affected in a similar manner, some of whom had never before been subject to such attacks, but were notwithstanding violently agitated and convulsed both in body and mind. But though such instances as these show the propriety of prudent caution, yet *too great* a solicitude to avoid every thing likely to give uneasiness, especially if such solicitude be very apparent, is likely to do as much mischief as service. Nothing so much enhances the apprehension of danger, or so often causes those on whose account the care is taken to believe the hazard greater than it really is; and such circumstances frequently recurring, keep them perpetually in a state of painful irritability, which in reality constitutes the disorder. It would be much better to inure such persons *gradually* to the common occurrences of life, and to the occasional mention of such things, which, if not magnified by the relators, or dwelt on as meriting particular attention, will come in time to be disregarded and their effects destroyed.

Instead of this, it is too usual with parents to foster the sensibility of their children, especially females, to an unnatural degree, by officious attention to remove every thing that can give the least interruption to pleasure, or even awaken the mind to its natural and necessary exertions. Affection contributes its share to enhance these complaints: an *unnatural* and *morbid sensibility* is often encouraged under the idea of *delicacy* and *tender feelings*; and even sickness itself is sometimes feigned, as being imagined, however falsely, a mark of a disposition of this kind. But if we take

the trouble of examining human nature more accurately, we shall find that the *liberal* and *truly* *variable virtues* of *humanity* and *benevolence*, are much more frequently found in persons of a *steady* mind and temper, who have experienced variety of fortune, than those who have passed their lives in a regular course of luxurious indulgences, which always generate selfish and mean sentiments.

It is remarked by an eminent moralist, that men who have met with an *uniform* compliance with their will, are inclined to cruelty and severity. A mixture adverse with prosperous fortune is necessary to inspire humanity and pity.

OF INCONTINENCE OF URINE.

This disease consists in an involuntary evacuation of urine, from an inability to retain it.

(CAUSES.—It is generally the consequence of weakness or palsy of the muscle of the bladder; sometimes arises from calculous concretions, irritating the neck of the bladder, or from injury of parts in the operation for extracting the stone; from pressure of the womb in a state of pregnancy; and very frequently, in women, from a communication between the bladder and vagina.

(TREATMENT.—When it arises from the want of tone or power in the muscular fibres of the bladder, a blister should be applied to the lower part of the back, or to the part termed the perinæum. The emetic Mixture, No. 77, page 74, should be taken as directed, with ten drops of tincture of can-

tharides in each dose; which, with cold bathing, electricity, and a generous diet, will probably succeed in recovering the tone of the bladder.—When it is occasioned by stone or gravel, it requires the same treatment as already recommended for the latter disease. When the effect of injury sustained in the operation for the stone, great relief is afforded in males by the pressure of the instrument called Jugum, and in females by the globular Pessary. When it is produced by an impregnated womb, an horizontal position should be observed as much as possible. When a communication exists between the bladder and vagina, it will, I am fearful, neither admit of cure or relief. This distressing case is generally produced by inflammation, and consequent ulceration, succeeding difficult parturition. It is often attributed to palsy or loss of tone in the muscular fibres of the bladder, and as such I have frequently known it treated by routine physicians, who have been considered eminent by the public, to the great injury of the patient; practitioners should therefore satisfy their minds as to the *real cause* of the disease, before they prescribe *active* remedies for its cure.

OF INDIGESTION.

In the introduction to the first part, the important office of the stomach in the animal machine is particularly noticed. The animal as well as the vegetable kingdom derives its nourishment or support from the earth. From the vegetable, branches spread into the earth, termed roots, and the nourishment they absorb

It is conveyed to every part of the trunk; this, therefore, flourishes according to the richness of the soil. In the animal, the intestines answer the same purpose as the root to the vegetable. He receives his food by the mouth, which, after being divided by the teeth, is conveyed to the stomach to be assimilated, or converted into animal manure. After it has undergone this process, it passes through the intestines, that the chyle, formed in the stomach, may be taken up by the absorbent vessels, and by them conveyed to the mass of blood, to be distributed over the body for its nourishment. On the state of the stomach and quality of the aliment, not only the health of the body depends, but in a great measure the successful treatment of most of the diseases that assail it, particularly those of a chronic kind. It is also of great consequence that the refuse of our food and faecal secretion of the intestines should be duly evacuated: if the faeces be allowed to remain in the intestines more than twenty-four hours, decomposition will take place, and a quantity of gas be disengaged, which, by distending the canal, is often productive of great irritation and mischief. There exists a great sympathy between the brain and stomach, so that irritation in the latter, or indigestion, by disturbing the brain, is often the means of bringing constitutional diseases into action; and in many cases of indisposition, in consequence of this intimate sympathy, it is often difficult to determine whether the brain or stomach were primarily affected. When the stomach does not duly perform its office, a powerful acid is often formed, which renders the most active remedies inert, as the soda or kali, when

administered in stone and gravel; while to others a degree of activity is given, which produces very injurious effects on the stomach and bowels, as is very often the case with mercury and antimony. Hence it is of the greatest importance, in many diseases, to prepare the stomach for the exhibition of such remedies; in the use of which it may be necessary to continue for some time, for the purpose of correcting any local or general diseased action.

SYMPTOMS.—A loss of appetite; disengagement of air, producing distension of stomach and bowels, often attended with eructations; heartburn; squeamishness; sometimes acid vomiting;—the body at length, not being properly nourished, becomes emaciated and much debilitated, sometimes attended with nervous irritability, and in elderly people with collection of mucus in the stomach and upper part of the gullet, and sometimes in the palate.

CAUSES.—The principal cause of indigestion is morbid irritation of the stomach, which may be the consequence of the too free use of spirituous liquors*, of poor diet, the over-distension of the stomach, too great a quantity of warm relaxing liquors (as tea and coffee), acid unripe fruit, an indolent and sedentary

* Spirituous liquors disorder the stomach by their chemical action on the internal coat, and by disturbing the brain: but in some subjects, where they do not produce the latter effect, an excessive use of them is not followed by symptoms of indigestion. Want of appetite and bad digestion are, however, generally the common complaints of drunkards; as the frequent use of spirits, by injuring the coats of the stomach, must sooner or later occasion a vitiated secretion of the gastric juice.

ce, close application or anxiety of the mind, or whatever may tend to weaken the digestive organs. A morbid or deficient secretion of the gastric juice is likewise often the cause of bad digestion.

It is sometimes the effect of diminished irritation, as in cases of palsy.

The prevalency of indigestion in this country may be attributed to inactive life, to error of diet, and the excessive use of spirituous and vinous liquors. With respect to our natural food, the formation of the teeth, as well as intestines, prove that we are destined to live on animal and vegetable aliment; and we find the flesh of animals, with a proportionate quantity of vegetables, to agree best with the stomach of persons in health, and to afford the most substantial nourishment to the body*. It is not, however, in the quality, but the *quantity* of food, in which man generally errs. No greater quantity should be taken than is required by nature to supply the waste the body has sustained, which must depend on the degree of exercise or fatigue to which it has been subjected, and not for the gratification of *artificial* appetites excited by the use of stimulants or spirituous liquors. That nothing strengthens the digestive organs more than exercise, is evinced by the great appetite and good digestion of people who are compelled by necessity to earn their bread by their

* What is the exact proportion of animal and vegetable nourishment which is most conducive to health, cannot perhaps be fully ascertained; but we may admit it as a general rule, that two-thirds or three-fourths of vegetables to one-third or fourth of animal food, is the most proper.

daily labour *. The principal cause among the high class of society is, the practice of drinking a quantity of wine during and after dinner. The Port and sherry wines consumed in this country are mixed with a quantity of strong brandy, to render them fit for keeping during the voyage; so that, instead of being pure wine, they are in reality a proof spirit. This spirit is extremely pernicious to animal life, and its repeated use will assuredly, sooner or later, destroy the most robust constitution; for after the stomach has been accustomed to its stimulus for some time, it requires a repetition to keep up its effects, and as life advances, so an additional quantity becomes necessary: a degree of sub-irritation of the whole system is thus produced, which is intolerable when the system is not under the cheering influence of the poison; derangement in the structure of the stomach takes place; and the foundation of the most distressing complaints that can possibly assail the human frame is laid before the meridian of life †! The great numbers that die

* Dissection demonstrates, that the coats of the stomach of a labouring man are very considerably thicker and stronger than those of a sedentary person.

† Ardent spirit hardens and contracts the animal fibre; hence the nervous energy of different organs is gradually destroyed, and the vessels for conveying fluids are lessened in their diameter, and ultimately obstructed. Morbid structure of pylorus and liver especially, are frequent concomitants of habitual inebriety. But the intestines, the pancreas, spleen, and perhaps the kidneys, are also liable to the same affection; which, after a certain time, is incurable, and often speedily fatal. The dram and purl drinkers may sooner experience these evils than other drunkards; but even the goggler of small beer has no security against them: nay, so sure and uniform is this effect of producing diseased bowels by fer-

of diseased stomachs and apoplexy *, brought on by the abuse of spirits, is a melancholy proof of this assertion. Independent of superabundant alcohol in wine, I have also detected a quantity of lead; indeed, this practice is become so prevalent, on account of the pleasant astringency it imparts to it, that I thought it incumbent to give directions for making a test for its detection †. (See Cream of Tartar.) It is a very common question to medical men, what wine is the most salubrious, or least liable to disorder the stomach? This question may be answered in a few words.—The British wines, in consequence of containing much sugary matter, are very liable to become acid in the stomach. The foreign white wines are better fer-

mented liquors, that in distilleries and breweries where hogs and poultry are fed on the sediments of barrels, their livers and other viscera are diseased like those of the human body; and were these animals not killed at a certain period, their flesh would be unfit to eat, and their bodies become emaciated. Several well-authenticated cases of spontaneous combustion of the human body, in consequence of the long immoderate use of spirituous liquors, have been published in England and on the continent, by gentlemen of unquestionable veracity. The Transactions of the Royal Society of London present a remarkable instance of this species of combustion, attested by a great number of eye-witnesses, in the Parish of St. Clement, Norwich. The extraordinary occurrence became the subject of many learned discussions; the particulars of which, with several other similar cases, are to be found in Dr. Trotter's Essay on Drunkenness.

* The use of spirituous liquors, by stimulating the brain, and producing determination of blood to it, is, no doubt, a principal cause of the frequency of apoplexy and sudden deaths in this country.

† Lead thus swallowed, not only injures the stomach, but is often the cause of the most obstinate and dangerous species of colic, which frequently terminates in inflammation of the intestines.

mented, but possess no advantage over diluted brandy; in fact, they may be considered a diluted spirit with different flavours. Port wine is also a diluted spirit, with the addition of an astringent matter, and is therefore a stomachic; but, on account of the quantity of spirit it contains, a very bad one, except in cases of disease that require the use of a spirit. Claret wine contains a less proportion of spirit, and also possesses astringency, and is perhaps the most salubrious wine imported into this country; but, on account of its weakness, it is, like the British wines, very liable to become acid in the stomach; this disposition is, however, in some degree counteracted by its astringent quality.

Three kinds of appetites may be observed, viz. the *natural appetite*, which is equally stimulated and satisfied with the most simple dish as with the most palatable; the *artificial appetite*, or that excited by stomachic elixirs, spirits, pickles, digestive salts, &c. and which remains only as long as the operation of these stimulants continues; and the *habitual appetite*, or that by which we accustom ourselves to take meals at certain hours, and frequently without any appetite. The true and healthy appetite alone can ascertain the quantity of aliment proper for the individual. If, in that state, we no longer relish a common dish, it may be regarded a certain criterion of its disagreeing with the digestive organs. If, after dinner, we feel ourselves as cheerful as before it, we may be assured we have taken a proper meal; for, if the proper measure be exceeded, torpor and relaxation will be the necessary consequences; the faculty of digestion will be

paired, and a variety of complaints gradually allured.

TREATMENT. —In all cases of indigestion we must determine whether the stomach be primarily or sympathetically disturbed, if the head be also affected, whether it be from increased or diminished vitality. Morbid irritation of the brain, and of course of the stomach (for the stomach derives its power of action from the brain), is often occasioned by an increased termination of blood to the head, or from general plethora, or plenitude of blood-vessels; and this state of the circulation is not unfrequently attendant on general debility and emaciation. In this case the pulse is full and oppressed, the patient is inflamed and his mind confused by wine, and he is often giddy and disposed to doze after dinner. When indigestion is accompanied with this state of system, the loss of blood by cupping, and the Epsom salt (as directed page 8), are the best remedies. When the system is not over-loaded with blood, the treatment should commence with the Emetic Powder, No. 88, after which the Stomachic Mixture, No. 61, page 70, or the Purgative Mixture, No. 77, page 74, may be taken with advantage. Two drachms of the Epsom salt may likewise be taken every other morning, to increase the peristaltic motion of the intestines, and remove redundant slime. If acidity prevail in the stomach, two drachms of Prepared Natron, No. 60, may be added to either of the mixtures recommended above. In debilitated, gouty, or languid constitutions, the volatile tincture of cascarilla, with the powder of the Jamaica ginger, will prove an excellent remedy.

Quassia root has been much recommended in case of indigestion; but from its poisonous effects on insects and small animals, which it speedily destroys, cannot consider it a safe remedy.

The extract of camomile* was a very favourite stomachic medicine with the late Dr. Cam, of Hereford it may be taken in the following manner:—

Take of extract of camomile, one drachm; purified natron, one drachm; tincture of ginger, two drachms; mint-water, six ounces.—Mix. Three tablespoonfuls to be taken three times a day.

If pills be preferred by the patient, it may be taken with equal advantage in the following form:—

Take of extract of camomile, one drachm; dried natron, half ditto; powdered rhubarb, one scruple; oil of carraway seeds, ten drops; syrup of ginger, sufficient to form twenty-four pills. Two to be taken two or three times a day.

When the countenance is pale and the extremities cold, and particularly when the legs swell in the evening, a scruple of the precipitate of iron may be added to the above form.

The compound tincture of ginger and camomile flowers is also a very excellent remedy for indigestion.

* It is worthy of remark, that the *long use* of bitter medicines has been found ultimately to impair the digestive organs; and it is a well-established fact, that gouty people, who have been in the habit of taking bitter cordials, generally die suddenly. The quantity of quassia or other injurious bitters employed by some brewers in making beer and porter, has, no doubt, been a principal cause of the frequency of stomach and bowel complaints in the metropolis. The narcotics, that likewise enter the composition of table-beer and porter, as opium, cocculus indicus (very favourite ingredients with some public brewers of the present day), must not only do irreparable injury to the stomach and bowels, but, from their continued use, prove very hurtful to the constitution.

been attended with much flatulence. (See No. 7, page 579) If there be a deficiency of the biliary secretion, which may be known by the pale or dark appearance of the fæces, a grain of prepared calomel should also be taken every other night, for about ten days or a fortnight. The decoction of sarsaparilla root is much commended by Mr. Abernethy to accompany the use of small doses of calomel in such cases, but it is not so efficacious as the Stomachic Mixture, No. 61, or decoction of ginger and camomile.

Until the stomach is restored to a healthy state by these means, such a diet should be adopted as will coincide with the remedies, and not aggravate the symptoms. Green vegetables should be taken very sparingly. The diet should consist principally of animal food, which, when well masticated, will digest better than vegetables alone*: and even if spirituous liquors were the chief agents in producing the disease, they should now be abandoned entirely; for as wine and malt liquor will soon become acid, spirits will prove beneficial, by checking fermentation, and keeping up the action of the stomach; a little brandy, diluted with

The flesh of young animals is most easy of digestion; but the quality of meat in this respect is much affected by the mode of cooking it. By roasting, the fibres are rendered hard to digestion; and by boiling, the juice and most nourishing qualities are extracted. The best method of cooking meat appears to be by steam, which renders the fibres more tender, and at the same time does not rob it of its nourishment, which resides in its juices or gluten. A most convenient apparatus for cooking meat and vegetables by steam has lately been invented by Mr. Bill, of No. 75, Newman-street, Oxford-street, which is also attended with a very considerable saving in expence of fuel and labour.

water, may therefore be allowed. If the patient be subject to gout, ginger may likewise be taken in the quantity directed for gout. The article taken for breakfast should contain an aromatic quality, to promote its digestion; for this purpose the best that can be adopted is the nut of the sassafras, which not only possesses a grateful aromatic property, but is also very nourishing. (See Sassafras Cocoa, p. 100.) For the want of a gentle aromatic, the usual breakfast of tea or coffee disorders the stomach by relaxing it, and by producing acidity and flatulence. To this treatment, exercise will prove a very powerful auxiliary.

In very obstinate cases of indigestion, attended with cramp in the stomach, a frequent disposition to looseness and flatulence, the following mixture will prove an efficacious remedy, particularly in elderly people:—

Take of extract of rhatany-root, two drachms; aromatic tincture of ditto, one ounce; prepared natron, two drachms; pure water, ten ounces. Two or three tablespoonfuls to be taken three times a day.

The stomach receiving its power of action from the brain, the application of cold water to the head, as directed for head-ach, by allaying morbid irritability of the brain, has been very beneficial in cases of indigestion, particularly when attended with pains in the head, and general nervousness. (See Head-ach.)

When the stomach is evidently disturbed by overdistension of the blood-vessels of the head, it will not only be necessary to keep the bowels open, but to observe a low diet, and to increase the circulation of the blood in the extremities, by the use of flannel socks, flesh-brush, &c.; and if attended with pain in

head, stupor, or giddiness, a blister should be applied to the nape of the neck. Such patients will receive great benefit by confining their beverage to pure water.

PREVENTION.—It must appear evident, from the foregoing observations on the causes of this disease, that the best effectual prevention consists in, 1st, properly exercising the body; 2dly, proportioning the quantity of food to the degree of exercise*; and 3dly, relinquishing the use of spirituous or vinous liquors: but if sufficient bodily exertions cannot be taken, and an artificial appetite must be produced by stimulating the digestive organs, such stimulants should be employed as will not injure the coats of the stomach, or disturb the brain. Of this class, ginger, Cayenne pepper, and well-seasoned pickles, are the most innocent and effectual. Of wines, genuine port is probably the most salutary beverage, in the quantity of a glass or two after meals; but this wine is often mixed with English brandy, which entirely destroys its salubrious property.

Such as are in the habit of drinking a quantity of port, or spirituous wines, will receive great relief by using distilled water at meals†, instead of wine or malt

It is not an easy matter to ascertain the exact quantity of food proper for every age, sex, and constitution; the best rule is to avoid extremes. Three meals in a day are as many as nature requires, and certainly as much as the stomach can properly digest;—dinner ought to form the chief of these. Hearty suppers, particularly of meat, in which some people indulge themselves previously to their retiring to rest, are highly prejudicial to health: hence the old adage,

Great suppers a very great evil we call;

That your sleep may be sound, let supper be small."

While we are eating, water is certainly the best beverage. The custom of drinking fermented liquors, and particularly

liquors, which will in a great measure obviate the injurious effects of an over-quantity of spirit or wine. I have known cases of indigestion from the use of spirits, attended with symptoms of a diseased pylorus, cured by the patient's drinking at meal times nothing but distilled water, and gradually diminishing the quantity of wine, till it was reduced from eight glasses to one in a day.

OF INFLAMMATORY FEVER.

In the introduction to the first part I have noticed the cause of fever. Heat, the animating principle of all nature, is produced in the animal body by the brain and lungs; the former supplying the body with electric matter and the latter with oxygen; on the union of which, as they are conducted by their respective vessels over the body, this vivifying principle is disengaged. If the excitability of the brain be increased, and the blood at the same time be overcharged with oxygen or vital air, there will be a considerable increase of heat (termed fever), which will disorder the functions of all the organs; the brain will be irritated, the stomach disordered, the secretions of the kidneys diseased, as well as that of the intestines.

wine during dinner, is a very pernicious one. The idea that they assist digestion, is false; for those who are acquainted with chemistry, know that food is hardened and rendered less digestible by them: and the stimulus which wine gives to the stomach is not necessary, excepting to those who have exhausted the excitability of that organ by the excessive use of strong liquors. If food want diluting, water is the best diluent, and will prevent the rising, as it is called, of strong food, more effectually than wine or spirits.

Symptoms.—Inflammatory fever is distinguished by increased heat of the body *without any intermission*, attended with a throbbing, generally pungent, but sometimes dull and heavy, pain in the head; the face appears red and bloated; the pulse strong, full, and frequent; great thirst; sense of general lassitude; the urine high-colored, and on standing deposits a brick-dust like sediment; the tongue is generally covered with a white coating; the judgment much impaired, and rest disturbed.

Causes.—Whatever increases the excitability of the system, when the blood abounds with red particles, will produce this fever.

Treatment.—In the treatment of this fever our object is to allay the increased excitability of the brain, and to diminish the quantity of red particles of blood: the former is best effected by the application of cold water to the head, and the latter by the extraction of blood from the arm. As there exists great sympathy between the brain and stomach, it will also be proper to remove from the stomach and intestines whatever may irritate them; for this purpose the Aperient Mixture, No. 72, page 72, should be administered: if the stomach be much disordered, the Emetic Powder, No. 88, p. 76, should precede the use of the aperient mixture. If during the operation of these remedies the skin should continue dry, perspiration should be excited by the Anodyne Powder, No. 37, page 51; and if this fail, the patient should be placed in a warm-bath of about 95 degrees; the saline mixture may be taken, as directed, No. 78, page 74; and the perspiration kept up by small doses of ten or twenty drops of Tartarised Antiseptic Wine, No. 16, with warm diluent liquids, as

barley-water, common whey, &c. and the body rendered laxative by means of the Epsom or Rochelle salt, as directed No. 2.

In all fevers, but particularly the inflammatory kind, it is of great consequence to keep a moist skin, for by the evaporation of perspirable matter superabundant heat is conducted from the system. A dry skin, on the contrary, by favouring the accumulation of heat, never fails to aggravate all the symptoms. If there be considerable determination of blood to the head, the application of leeches to the temples, a blister to the nape of the neck, and the immersion of the feet in warm water, should not be neglected; and if the patient complain of stitches in the chest and difficulty of breathing, the loss of blood should be repeated, and a blister applied over the breast bone. If, when the fever has nearly subsided, morbid irritation of the brain exist, preventing sleep, ten or twelve drops of Laudanum, No. 31, may be given in a dose of the saline mixture. The diet should be principally arrow-root jelly, barley-water, gruel, or tapioca, without spices or wine, till the inflammatory symptoms have considerably abated.

The application of cold water to the surface of the body was much recommended by the late Dr. Currie, of Liverpool, and has certainly been attended with very beneficial effects, by diminishing excitability of the brain and conducting heat from the body; but the application of it to the head is not less efficacious.

When the fever has entirely subsided, we should invigorate the stomach, in order that the system may be properly nourished and restored to health, by the following mixture:—

of essential salt of bark, No. 24, one drachm; dissolve in half a pint of mint-water, and add sweet spirit of nitre, No. 15, three drachms. Three tablespoonfuls to be taken four times a day.

If the salt of bark cannot be procured, half a pint of the decoction (see Peruvian Bark, No. 48) may be substituted for it and the mint-water.

OF INFLAMMATION OF THE BRAIN.

Inflammation may be considered local inflammatory fever, produced by a determination of blood and nervous matter to the part, in consequence of local irritation.

People in the vigour of life, the passionate, the irascible, and such as are predisposed to apoplexy, are most subject to inflammation of the brain.

Symptoms.—Inflammation of the brain commences with rigors, tremor of the extremities, a sense of cold and stupor. The veins of the head soon become distended, and the arteries beat with increased force; the eyes are often steadfastly fixed, fierce, and sometimes sparkle; the voice shrill, and language incoherent; a proneness to anger, and at times a determined resolution to walk about the room; the pulse is generally languid, and the extremities cold: on waking he generally talks or mutters a great deal, with clattering of the teeth, trembling of the hands, and constant motion of the fingers, which seem employed to pick or gather something, and often do so in the nap of the bed-clothes. After the *fourth* day the delirium is more continual and furious, with vomiting, convulsions, and hiccup; the faces pale,

and at length, with the urine, are discharged involuntarily; the pupils of the eyes are dilated, and other symptoms of approaching dissolution ensue: or critical sweats and looseness come on, or bleeding at the nose, or piles, which are of a more propitious import.

CAUSES.—Excessive drinking, violent passions of the mind, exposure of the head to the sun, long watching, close application of the mind, suppression of natural evacuations, concussions of the brain, and whatever may increase the afflux of blood into the head.

TREATMENT.—The most powerful remedies should be employed, on the *first attack* of the disease, to unload the vessels of the head; for this purpose as much blood should be extracted as the system will bear, either by opening one or both the temporal arteries, or from the scalp or nape of the neck, by the operation termed cupping; or from the jugular vein, or the arm, by a *large* orifice, twelve or sixteen ounces of blood, or till the patient faints, which will prove of much greater advantage than double the quantity extracted from a small vessel, or by leeches. The head should be shaved, and the *whole* of the scalp covered with a blister. The next object is to diminish the determination of blood to the head, by doses of the Aperient Mixture, No. 62, and the Clyster, No. 97. With the same view blisters should be applied to the feet, the thighs, and arms; or the Mustard Poultice, No. 111. Folds of cloth, wet with vinegar, may be applied to the forehead, or ice or snow to the scalp. The room should be kept dark and quiet, and the patient supported with barley-water, acidulated with lemon juice.

It is the delicate structure of the seat of the inflammation, that no time should be lost in the employment of these means, which, from the feeble state of the patient, are too often neglected by timid or inexperienced practitioners, till the brain has sustained irreparable mischief.

The Saline Mixture may likewise be given every two or four hours, as directed No. 78, page 74, with four or twelve drops of the tartarised Antimony Wine, No. 116, to which as many drops of the tincture of Ipecacuanha may be added, if the circulation be much diminished; but in inflammatory attacks of a part of such delicate structure, and so essential to life, as the brain, the advice of the most skilful and experienced surgeon in the neighbourhood should be resorted to in the earliest stage of the attack*.

The state of the mind should, in this disease, be particularly attended to. The medical writers of antiquity, with regard to this, given many very judicious directions. Aretæus remarks several circumstances, apparently minute, but in reality very important. He advises, "quiet and calmness both to the patient and his attendants, and that he should be placed in a chamber of moderate size, with the walls smooth, uniform, and regular, without projections, and unadorned with variety of colours or paintings,

Routine Physicians, whose practice is generally governed by the state of the pulse, and the effect more than the cause of disease, too often confound this affection with putrid fever; instead of the depleting plan recommended above, treat phrenetic symptoms as delirium from debility. The pulse, says the learned Celsus, *res fallacissima est*; and in this it is particularly so.

as they are apt to distract the mind, and impose on the patient for realities. He orders even the bed-clothes to be smooth and of a regular surface, that the patient may not be induced to fatigue himself by picking the irregularities. He also directs that some of his most intimate friends may have access to him, and, by amusing discourse and mild expressions, endeavour to pacify and compose his perturbation of mind. He recommends likewise a compliance, as far as possible, with all the desires of the patient, especially if he be prone to anger and violence. If light be offensive, or seem to aggravate the disorder by suggesting objects to the imagination, he orders the chamber to be kept dark; but if darkness, from the uncertain state of mind it induces, cause dread and horror, light is directed to be let in." Cœlius Aurelianus, a physician of great celebrity in his time, agrees in most of these points with Aretæus, to which he adds some useful cautions of his own. Thus he directs the "light to be mild and gentle, as of a lamp or that of the day, let in through a small aperture, and directed principally to the face of the patient, as an object to fix his attention, and thus prevent the mind wandering in uncertain thoughts and ideas;—a precaution frequently useful in modern practice, and known to be of the greatest efficacy in calming delirium when not very violent. He also recommends that such persons should not be admitted to him to whom he bore any aversion or dislike in his natural state of health; and that those people should be introduced whom he had been accustomed to respect and reverence; but that the visits of these should be only at intervals, in order that the influence of the

and might not be destroyed by habit and familiarity."

these precautions are extremely proper, being founded on reason and experience. These directions, however, more apply to the delirium attendant on low irritative fever than *active* inflammation of the brain; in the latter instance the patient is for the most part in a state of insensibility.

INFLAMMATION OF THE EYE.

SYMPTOMS.—Pain, redness, heat, and tension of the eye, or its membranes, accompanied with intolerance of light, and generally with an effusion of acrid tears.

CAUSES.—External injury, excessive light, minute lacerations, repeated intoxication*, intense heat, and obstructed perspiration, are the most frequent causes of this disease.

TREATMENT.—The *repeated* application of leeches to the eye-lids or temples, blisters to the nape of the neck, occasional use of the Aperient Mixture, No. 62, page 177, the constant application of the Eye-water, No. 100, (means of folds of fine old linen), the Saline Mixture, No. 178, a dark room, and low diet, are all indispensably necessary in the treatment of this disease, and should be *liberally* employed, to prevent the formation of matter

Inflammation or redness of the eyes is a distinguishing mark of a drunkard, remarked by the vulgar, as if to point him out by the finger of scorn.—"Who hath woe? who hath sorrow? who hath contentions? who hath babbling? who hath sadness without cause? who hath *redness of eyes*?" says Solomon. "they that tarry long at the wine, they that go to seek for wine."

and opacity of the cornea*. If the inflammation continue after the employment of these remedies, the blister should be kept open by dressings of the savin ointment; and the aperient mixture, application of leeches, &c. repeated; and if the patient be of a plethoric habit of body, or suffer from a determination of blood to the brain, producing pulsating or beating pain in the head or giddiness, the extraction of blood from the jugular vein or arm will also be proper. When the disease occurs periodically, or in a scrofulous habit, the Mixture, No. 75, page 73, should be substituted for the saline mixture, after due evacuations by the means above suggested. In case of much pain, two or three drops of liquid laudanum may be dropped within the eye-lids at bed-time, or twice a day, which will not only allay the pain, but often succeed in speedily dispersing the inflammation, particularly after the operation of the aperient medicine, &c. The electric aura applied to the eyes, is much recommended by Mr. Samuel Cam, an ingenious surgeon in Hereford, in whose practice, at the General Infirmary of that county, it proved very successful. If the inflammation arise from venereal taint, the internal use of mercury will be absolutely necessary.

The fever diet, described page 133, should be strictly observed.

When inflammation of the eyes occurs in subjects whose absorbent system is naturally delicate (termed the scrofulous habit), it is generally of a very obstinate

* This effusion, terminating in adhesions of the layers of which the transparent cornea consists, produces opacity, and is a very common cause of blindness.

nature; and after the system is quieted by the foregoing means, will likewise require the treatment recommended for king's-evil, to complete the cure, particularly the prepared natron, the alterative pills, and compound decoction of sarsaparilla. (See King's-evil.)

Chronic inflammation of the edges of the eye-lids will also require the same constitutional remedies, which, with the use of the following ointment, will effect a cure:—

Take of ointment of the nitrated quicksilver, two drachms; olive oil, four drachms.

To be mixed in a glass mortar, and applied to the edges of the eye-lids, and particularly within the corners of the eyes, every night and morning, by means of a fine camel-hair pencil. In such cases, an issue in the neck or arm, and the Scrofulous Mixture, No. 75, page 73, will prevent a recurrence.

Infants born in winter are very subject to sore eyes, from the action of the cold air on them; all that is requisite in such cases, is to keep the head warm, and wash the eyes with fresh rose-water. If the inflammation should increase, it will be proper to add two grains of white vitriol to four ounces of rose or elder flower water, which should be dropped within the eye-lids once or twice a day, and often applied externally by means of some fine lint; the bowels should likewise be emptied by a little magnesia and rhubarb in mint-water. When the symptoms run high, the application of leeches to the eye-lids, and sometimes a blister to the nape of the neck, or behind the ears, will be necessary.

Infants are sometimes attacked with sore eyes a few

days after birth, attended with a discharge of thick matter, which, if not skilfully treated, may terminate in blindness; and, as it is very rapid in its progress, the advice of an experienced surgeon should be taken on its first appearance. In this case the bowels should be emptied twice or three times a week, by one or two grains of calomel, with or without rhubarb, as the state of the bowels may indicate; and folds of fine old linen frequently immersed in the following lotion should be kept constantly to the eyes, and a little poured between the eye-lids twice or three times a day:—

Take of acetated zinc, and acetated ceruse, of each four grains; distilled water, six ounces.—Mix.

PREVENTION.—People subject to inflammatory attacks of the eyes or eye-lids, should pay particular attention to the state of the digestive organs, and on any symptom of indigestion, or determination of blood to the head, should take the Cathartic Pills, as directed No. 84, page 75, or a solution of the Epsom Salt, as advised No. 2, page 8, especially in the commencement of spring and autumn. The eyes should likewise be washed every morning with *cold* water, to which a little brandy may be added on the appearance of redness or fresh irritation.

High-seasoned dishes, strong wines, and spirituous liquors, should be avoided.

OF INFLAMMATION OF THE INTESTINES.

SYMPTOMS.—This disease is distinguished by a *fixed* pain in the belly, which is increased by pressure, at-

tended with the usual symptoms of fever, costiveness, and vomiting. The pain is felt in different parts of the bowels, according to the seat of the inflammation, and very often it spreads over the whole belly, and is felt more especially about the navel. The pulse is quick, hard, and small; the urine high coloured; the abdominal muscles frequently contracted.

CAUSES.—It may be occasioned by external contusion; by acrids of various kinds taken into the stomach; frequently by very cold drink, swallowed when the body is warm; or cold applied to the lower extremities, or belly itself: it is sometimes produced by costiveness; and often supervenes in the progress of colic; or is also occasioned by the strangulation of a protruded portion of the intestines in a rupture, or what is commonly termed a broken belly.

TREATMENT.—Copious bleeding, the frequent exhibition of an emollient clyster of starch, fomentations, the warm-bath, a large blister on the belly, small anodyne clysters (see No. 96) occasionally injected, are the most effectual remedies in the first stage of this violent disease. If vomiting be an attendant, great care must be taken not to aggravate it either by the *quantity* or *quality* of any thing thrown into the stomach.

Such is the nature of this complaint, that we cannot be too cautious either in administering medicines or diluents by the mouth; for the capacity of the intestinal canal is often so diminished, as to be sometimes nearly obliterated or shut up; and a quantity of any kind of liquid or aliment, however *simple* in itself, must, by *distending* the intestines, or being forced

against the obstruction, necessarily increase the irritation and mischief. The propriety of administering aperient medicines is to be questioned, as the irritation they produce may aggravate the inflammation; the *frequent* use of emollient clysters will supersede their necessity, and at the same time act as a fomentation to the parts. Fresh olive oil, in the dose of a tablespoonful, is, perhaps, the only medicine that can be admitted with safety. Laudanum may, in some cases, be employed with great advantage; but in others it may prove as injurious:—clysterwise it is generally more efficacious than when given by the mouth. When the pain remits, and the *violence* of the symptoms abates, *mild* diluents may be allowed, as chicken broth, linseed tea, &c. and if such liquors be retained without aggravating symptoms, a little fresh castor oil may be given every three or four hours, till it procure a passage.

If that state of the intestine be suspected to exist, technically termed *volvulus* or *introsusception*—that is, a preternatural *ingress* of one portion of the intestine into the other, or a reduplication of the intestine—quicksilver, in the quantity of an ounce, should be given; and, as its effects are entirely mechanical, the patient should be put in an erect posture (that it may the better press on the inverted part), and kept in that state till it has passed the stricture, which will require but a few minutes. He may then be replaced in bed, when the quicksilver will more easily pass through him.

In a late treatise on inflammation of the bowels, by Dr. E. Peart, calomel and opium are ordered in the

first and every stage of this disease. The calomel to be continued at short intervals, and opium when requisite, till the disease is removed, even although forty, sixty, or more than one hundred grains of calomel, may in the whole be found necessary. I have lately witnessed, in two desperate cases, the salutary effects of this practice.

The spirit of sal volatile applied to the scalp of the head, temples, and forehead, by allaying irritation of the brain, is an important remedy in this and other internal inflammations. When the inflammation is the effect of some acrid poison swallowed, it requires the same treatment as already recommended for poisons.

The inner membrane of the stomach and intestines is subject to inflammation, similar to that of the cuticle, termed St. Anthony's Fire, which is, therefore named Erysipelatous or Erythematic inflammation of the intestines. In this species, calomel, as recommended by Dr. Peart, is a very excellent remedy. Stimulants, as a weak infusion of ginger, have likewise proved very efficacious, by producing a secretion of mucus, in which the disease seems to terminate. Medicines of this class should not, however, be employed without the sanction of an *experienced* practitioner. Children are particularly subject to this species of inflammation of the intestines, and in them it often proves fatal. The warm-bath, small doses of calomel, and the Cretaceous Mixture, No. 64, with a diet of animal and vegetable jellies, as the hartshorn, isinglass, arrow-root, &c. are, in such cases, principally to be depended on.

DISTINCTION.—The great degree of fever, quick-

ness of the pulse, *constant* pain, and great heat, will distinguish this disease from every species of colic, in which vomiting is likewise not in so great a degree, and is at the same time attended with coldness of the extremities.

INFLAMMATION OF THE THROAT.

This disease, also called Quinsey, occurs principally in spring and autumn, when vicissitudes of heat and cold are frequent. It affects especially the young and sanguine, and a disposition to it is often acquired by frequent attacks.

SYMPTOMS.—It commences with an unusual sense of tightness in the throat, particularly on swallowing, which is often effected with difficulty and pain. On inspection, some tumefaction and redness of the fauces may be perceived, which shortly spreads over the tonsils, the uvula, and soft palate, attended with a troublesome clamminess of the mouth, and fever, with its usual attendants, as head-ach, delirium, &c. In desperate cases, the tongue and tonsils are so much swollen as to prevent deglutition, and even so to affect respiration, that the patient is often obliged to be supported in an erect posture, to prevent suffocation. The inflammation generally attacks one tonsil first, which in a day or two it sometimes leaves and affects the other, and not unfrequently quits them both suddenly, and flies to the lungs.

CAUSES.—It is generally occasioned by the external application of cold air, particularly about the neck. Whatever violently stimulates the fauces, in a ple-

thoric habit especially, as acrid food, poisons, &c. may produce it.

TREATMENT.—As the inflammation, from the delicate structure of the parts, soon advances to suppuration, *active* means should be *speedily* employed for its resolution. For this purpose the patient should take a *full* dose of the Epsom or Rochelle Salt, No. 2, or the Aperient Mixture, No. 62, page 70; and after its operation, the Saline Mixture, No. 78, page 74, with twenty drops of antimonial wine at bed-time. The Gargle, No. 92 or 93, page 77, should be used frequently, and the Volatile Liniment, No. 103, page 80, applied *externally*, which for *slight* cases will generally prove sufficient; but if the inflammation should so increase as to give a sensation of suffocation, the extraction of blood near the part by leeches, or from the jugular vein, and a blister under the chin, to reach nearly from one ear to the other, will also be necessary.

The diet should consist of gruel, arrow-root, and barley-water, acidulated with lemon-juice.

If, notwithstanding these means, the inflammation advance to maturation, the gargle, aperient, and saline medicines, should be discontinued, and the patient allowed a little wine and beef-tea, till he be able to swallow more substantial food; and after the matter is evacuated, the Detergent Gargle, No. 95, should be employed, and three tablespoonfuls of the following mixture taken three or four times a day:—

Take of red rose leaves dried, two drachms; infuse in half a pint of boiling water till cold, then strain and add diluted vitriolic acid, one drachm; compound tincture of rhatany root or Peruvian bark, half an ounce.—Mix.

If the patient should, at any period of the disease, be incapable of taking any food by the mouth, a clyster of starch or broth (see No. 99, page 79) should be administered three or four times a day, for the purpose of throwing nourishment into the system.

OF INFLAMMATION OF THE LUNGS.

SYMPTOMS. — This disease commonly commences with shiverings, which are soon succeeded by difficulty of breathing, cough, pain or stitches in the chest, particularly on inspiration or coughing; a sense of fullness in, and tightness across, the chest; great anxiety about the heart; restlessness; loss of appetite; the pulse quick, sometimes hard, and seldom strong or *regularly* full; the breath hot; the tongue covered with a yellowish mucus; and the urine turbid. The difficulty of breathing is most considerable on inspiration, and in a horizontal position; and in order to facilitate respiration, the shoulders and head are kept more or less elevated. In consequence of the obstruction of the free passage of blood through the lungs, the veins of the neck are distended, and the face swollen, with a dark red colour about the eyes and cheeks. The pain in the chest is generally aggravated by lying on the side affected, though sometimes the contrary happens, and very often the patient can lie easy only on the back.

CAUSES. — It is occasioned by the application of cold to the body, obstructing the natural perspiration of the skin, and thus producing a determination to the lungs, while, at the same time, the lungs them-

selves are exposed to the action of cold air. Suppressed evacuations, repulsion of eruptions, violent exercise, external injuries, and vehement exertions of the lungs, are often *exciting* causes of this disease.

TREATMENT.—The principal object in the treatment of this disease, is to unload the vessels of the lungs; by bleeding, and such remedies as are calculated to produce a determination of blood to the surface of the body and extremities, which, on account of the importance and delicacy of structure of the seat of the inflammation, should be employed as *early* and *fully* as possible.

With these views twelve or sixteen ounces of blood should be taken, by a *large* orifice, from the arm, and repeated according to the strength of the patient and the violence of the symptoms*; a large blister should be applied to the side most affected, and if the patient should complain of pain in the head, pulsation, or drowsiness, one should likewise be applied to the nape of the neck, and even to the feet. A dose of the Aperient Mixture, No. 62, page 70, should be taken every two hours, till it operates, and afterwards the Cough Mixture, No. 66, page 71, according to the directions there specified; ten drops of the tincture of foxglove may likewise be given two or three times a day, if the pulse should continue quick. The patient should be suffered to drink plentifully of the almond emulsion, page 97, or an infusion of linseed, acidulated with lemon juice, which will be sufficient for his sup-

* If the constitution of the patient be naturally weak, the extraction of blood from the chest, by cupping, will often prove more serviceable than *general* bleeding.

port till the symptoms are considerably abated, when he may be allowed a little arrow-root or tapioca jelly. If the skin should continue dry and hot, the body should be put into a warm-bath of about 95 degrees, for in this disease it is of the greatest importance to produce and keep up copious perspiration. After the inflammatory symptoms have subsided, the decoction of the Iceland liverwort will prove an excellent restorative. (See No. 117, page 84.)

The structure of the lungs is of that delicate nature, that it will not sustain inflammation many hours without endangering the life of the patient, or laying the basis of consumption, particularly if the patient be of a scrofulous habit. The active remedies recommended above should therefore be employed as *speedily* as possible, in order to abate and disperse the inflammation; and not by degrees, as is too frequently the practice with timid or inexperienced practitioners. Through an indecisive practice many lives are doubtless lost, that might have been saved had the means been adopted in the first instance.

It is scarcely necessary to observe, that in case of inflammation of a part so essential to life as the lungs, the most able advice should be resorted to in the first instance, as the delay of a few hours might render the recovery of the patient very doubtful.

OF THE ITCH.

SYMPTOMS. — This disease first appears in small pimples with watery heads, which itch violently when the part is warmed by the heat of the fire or bed. By

friction the pimples are inflamed, and assume a peculiar redness, which distinguishes the disease. It usually appears about the wrist, fingers, arms, and thighs, but seldom on the head.

CAUSE.—The pimples are evidently produced by an animalcule, which is described to be of a whitish colour, and formed like a tortoise, having six feet, and a sharp head, with two sharp horns on its points; others, who have not taken the trouble of making so minute an examination, assert, that it is an eruption from an ichorous serum, which, by irritating the small ramifications of the nerves under the cuticle, occasions the itching and heat. If this latter opinion be correct, it could not be communicated by the clothes.

CURE.—Sulphur is a certain poison for these animalcules, and more safe and expeditious than any other application. In the Itch Ointment, No. 107, page 81, the unpleasant smell of this remedy is disguised. The part affected should be well anointed with it every night, till the eruption entirely disappear. The internal use of sulphur will, in all cases, assist its external application. The linen should be clean and often changed, and not worn again before it be well washed and bleached, so as to destroy the animalcules that may have lodged in it.

The decoction of white hellebore is by some preferred to sulphur, on account of being inodorous. It may be made in the following manner:—

Take of white hellebore root, bruised, four ounces; boil in a quart of water to a pint and a half, then strain, and add lavender-water, four ounces; with which the parts affected should be washed two or three times a day.

Mercurial applications are preferred by many prac-

titioners; but they are neither so safe nor certain as sulphur, and may, under certain circumstances, prove very hurtful to the constitution. The advertised remedies for the itch are chiefly composed of arsenic, mercury, and lead.

OF JAUNDICE.

SYMPTOMS.—This disease generally comes on with listlessness, loss of appetite, drowsiness, depression of spirits, and generally costiveness, which are soon succeeded by a yellow appearance of the whites of the eyes, the nails of the fingers, and at length the whole surface of the body. The urine is highly tinged with bile, and deposits a yellow sediment, which imparts its colour to linen; the stools are of a light clay colour; a violent pain frequently extends from the right side to the pit of the stomach, which is considerably aggravated after meals; some are much disposed to sleep, and others to watchfulness.

CAUSES.—In this disease the bile not passing through the biliary duct into the intestines, it is taken up by the absorbent vessels of the liver, and conveyed to the mass of blood, from whence it is separated by the kidneys, and passes off in the urine. The causes of obstruction in the natural channel are various, viz. biliary concretions, in which case it is attended with paroxysms of acute pain in the regions of the liver and stomach: another cause is, compression of the biliary duct by schirrous tumours*, and sometimes the impregnated

* Schirrous enlargements of the viscera are generally the consequence of the abuse of spirituous liquors; drunkenness

womb. It is often occasioned by spasmodic contraction of the biliary duct, in which case it is generally brought on by mental depression or uneasiness*.

TREATMENT.—The cure of this disease depends on the removal of the impediment to the free passage of the bile through the biliary duct; but before the accomplishment of this object is attempted, it is often necessary to palliate the most distressing symptoms. Thus, if the patient be affected with a violent paroxysm of pain, we should endeavour to procure a suspension or mitigation, by the exhibition of twenty drops of liquid laudanum in a little peppermint-water, which should be repeated according to the violence of the pain.

When the obstruction is produced by spasms or biliary concretions, and the patient is of a plethoric habit, the loss of blood from the arm, by relaxing the parts, will afford considerable relief.

When it arises from concretions lodged in the biliary duct, the indication of cure is, to produce a dissolution of the concretion, or to facilitate its passage to the

has therefore been enumerated as one cause of this disease. "When jaundice appears," says a modern author, "it may be reckoned a proof of the patient's being a veteran worshipper at the shrine of Bacchus." The drunkard should be taught to look into a glass, that he might spy the changes in his countenance. The first stage would present him with redness of eyes, the second will exhibit the carbuncled nose, and the third an obstinate jaundice, which will probably terminate his wretched career.

* It is remarkable, that this cause is often produced by jealousy and anger. Hoffman and Morgagni relate instances of the jaundice being repeatedly produced by mental commotions.

intestines, by relaxing and agitating means. The solution of biliary concretions is extremely difficult, even out of the body, and of course must be much more so when lodged in the gall bladder or duct. Dr. John Camplin asserts, that he has found ether to answer this purpose, and I have certainly witnessed its good effects in several cases; but whether from a solvent power, as the doctor supposes, or as an anti-spasmodic, I cannot take upon me to determine: the latter is the most probable.

For the purpose of relaxing the biliary duct, laudanum, the loss of blood, the warm-bath, and nauseating doses of the Tartarised Antimony Wine, No. 16, are the most powerful remedies; and the agitation of the parts, which will afterwards accelerate its expulsion into the intestines, is best effected by the Emetic Powder, No. 88, active purgatives of calomel and jalap, and exercise.

When the disease is produced by the *pressure* of a schirrous tumour*, the remedies to be depended on are the hemlock combined with mercury, in the following proportion, and the use of distilled water, as recommended for the cure of cancer:—

Take of powdered hemlock, one drachm; prepared calomel, two scruples; conserve of hips, sufficient quantity to form a mass; to be divided into forty pills. One to be taken twice a day, with three tablespoonfuls of the following mixture:

Take of infusion of Columbo, six ounces; prepared soda, two drachms; compound tincture of cardamom seeds, half an ounce.—Mix.

If the bowels should be confined during the use of

* Schirrosity of the pancreas, by compressing the biliary duct, is not an unfrequent cause of jaundice.

these medicines, an ounce of aloetic wine may be added to the mixture.

The diet should be regulated according to the state of the constitution: in cases of organic disease, the strength should be supported; but if it be produced by biliary concretions, the diet should be low, particularly if the patient be of a plethoric or inflammatory habit. But as vegetables are apt to generate a troublesome degree of flatulence and acidity in the stomach, the patient should be allowed broth, and a little animal food in substance.

Infants soon after birth are very subject to attacks of jaundice, from viscid mucus obstructing the gall duct; for the removal of which, a gentle emetic of ipecacuan powder (about three or four grains) is generally sufficient; if it should yield to this remedy, a gentle dose of calomel and rhubarb may be given twice a week, and the Solution of Salt of Wormwood two or three times a day, as directed No. 21, page 28.

People subject to this disease from gall-stones, should be very particular in avoiding indigestion, and the consequent formation of acidity, which, from the analysis of the stone, is probably the primary cause. (See Prevention of Indigestion, page 381.)

OF KING'S-EVIL, OR SCROFULA.

The Latins termed this disease scrofula, from *scrofa*, a hog, because it has been observed in the swine. It is named the King's-evil, in consequence of Edward the Confessor, and other succeeding kings, both of Eng-

land* and France, pretending to cure it by the touch.

In the introduction to the first part I have noticed the office of the absorbent system in the animal machine. In subjects of a delicate structure, this important part of the constitution is often extremely tender, which constitutes what is termed the scrofulous habit. The absorbent vessels not acting in unison with the discerning extremities of arteries in different parts of the body, indolent tumours are formed. This state of the absorbent system is often transmitted from parents to their children.

In scrofulous subjects, the characters of the brain at an early period are strongly marked; and its intellectual functions are performed, during youth, with unusual vigour.

The different opinions that have been broached respecting scrofula, as produced by a specific poison, or connected with the venereal disease, small pox, &c. are too ridiculous and absurd to notice: nor is the idea of its being a disease of debility less erroneous; for its victims are equally the robust as the weak, and it appears in the sanguine as well as the phlegmatic habit.

The derangement generally occurs in the glands of the neck, in the ligaments of the joints, and even in the substance of the bones. The glands of the mesentery are also often tumefied, and accumulation takes place in the substance of the lungs, forming what are termed tubercles.

* The last that practised this delusion was Queen Anne. In the London Gazette of the year 1707 is inserted a proclamation, inviting her scrofulous subjects to the royal touch.

TREATMENT.—The treatment of scrofulous affections must depend not only on the state of the constitution, but the structure of the parts, and their importance in the animal economy in which they occur. When the lungs are the seat of the mischief, it produces the disease termed Pulmonary Consumption, which is noticed page 241; when it takes place in the ligament of a joint, it is denominated White Swelling, the treatment of which is given under that head.

Numerous specifics for scrofula have been recommended, but the idea of correcting the system by a specific remedy is ridiculous. When the derangement takes place in a part of little importance in the body, we must attend to the general health, in doing which we must keep in view the state of the cerebral system; for the absorbent system, which is entirely in error in this disease, derives its power of action from the brain; and whatever tends to increase the irritability of the nervous system will aggravate scrofula. For the improvement of the general health, the directions given under the head of Indigestion, page 370, should be adopted in scrofula.

To invigorate and strengthen the absorbent system, cold bathing and the sea air have been found very beneficial; but when the mischief is situated in the chest, the former cannot be employed with safety.

A little mercury is also very beneficial, by rousing the action of the absorbent vessels; but if it be given in quantity, or continued for some time, so as to occasion irritation in the system, or what is termed the mercurial fever, it will be productive of fresh mischief. Issues have been found very beneficial in cases of scrofula,

but I believe only in subjects of plethoric habits. For the ulcers which follow suppuration, frequent ablution with lime-water, and the application of lint moistened with it, are more beneficial than greasy compositions.

Washing scrofulous tumours with salt water, by invigorating the absorbent vessels, is generally of great service; as is also gentle friction with the hand.

In subjects of a delicate absorbent system, or what is termed the scrofulous habit, slight accidents, especially sprains, are often productive of considerable mischief. They should therefore be attended to in the first instance.

Solutions of corrosive sublimate and arsenic have been industriously advertised as specifics for scrofula. Such medicines, judiciously administered, may prove beneficial; but in the hands of ignorance, they must, from their poisonous qualities, be often productive of serious mischief, for if the dose be exceeded only a few drops, the patient's life may be destroyed—instances of which have certainly occurred; the proprietors' positive declaration that they are perfectly innocent, having induced many to exceed the directions, in order to accelerate their recovery.

OF LEPROSY.

The true lepra, or leprosy, very rarely occurs in this country. To this head, however, is referred a great variety of cutaneous affections, which, for the most part, yield to the remedies recommended for cutaneous derangement. (See Eruptions of the Skin.)

OF LUMBAGO*.

When rheumatism attacks the loins, it is thus denominated. In cases of pains in the loins, medical advice should always be taken; for should inflammation be here mistaken for rheumatism, and, as such, treated by *stimulating* medicines, the consequence would be a formation of matter, constituting the disease termed *Lumbar abscess*, which generally terminates in the death of the patient. Advertised medicines for lumbago have certainly been productive of much mischief in this respect.

When the case is doubtful, the warm-bath, a blister over the part, and the Antimonial Powder, as directed No. 37, may be safely employed. Lumbago requires the same general remedies and topical applications as recommended for rheumatism.

OF MEASLES.

This disease is highly infectious, and the constitution that has been once under its influence is not liable to a second attack.

SYMPTOMS.—It generally begins with shiverings, succeeded by heat; a severe head-ach in adults, and heaviness in children; a slight inflammation and con-

* To distinguish rheumatism by different names, from its attacking different parts of the body, unless it require different treatment, is surely ridiculous. To be enabled to distinguish local rheumatic affections by a technical term or fine-sounding word, is by some routine physicians considered a proof of learning!!

siderable heat in the eyes, attended with swelling of the eye-lids, a defluxion of acrid tears, an inability to bear the light, frequent sneezing, and discharge from the nostrils: sooner or later a fever comes on, with a cough, a sense of tightness across the chest, nausea, and vomiting. About the fourth, and sometimes the fifth day, red spots, resembling flea-bites, begin to appear on the forehead, and other parts of the face, and successively on the lower parts of the body, which increase, run together, and form large red spots of different figures. The spots on the face sometimes appear a little prominent to the touch; but on other parts, do not rise higher than the surface of the skin. On the third day of the eruption, the vivid redness is changed to a brownish red, and in a day or two more, entirely disappears, and is succeeded by a mealy scaling of the scarf-skin, and sometimes a difficulty of breathing, dry cough, pains in the chest, and fever; which, in scrofulous habits, often terminate in consumption.

TREATMENT.—If the inflammatory symptoms do not run high, the occasional use of the Aperient Mixture, No. 62, page 70, and ten or fifteen drops of tartarised antimony wine at bed-time, a low diet, and a warm room, will be sufficient. If the fever and affection of the lungs be considerable, the loss of blood, a blister over the breast bone, and the Cough Mixture, No. 66, page 71, will likewise be absolutely necessary, and should not be delayed. The almond emulsion, linseed tea, or the compound barley-water, as directed page 94, should be taken freely. If, after these means, the cough, difficulty of breathing, and pain in the chest, should continue, it will be advisable to apply another

blister between the shoulders, or two or three leeches to each side of the chest. If looseness supervene, it should not be checked, unless it be violent, and even in that case not suddenly. Five grains of rhubarb, with two of ipecacuan powder, will, in general, for this purpose, be sufficient. After the spots have disappeared, the patient should not be too hastily exposed to a cold air.

The diet should be low in proportion to the degree of fever. The Almond Emulsion, page 90, or Compound Barley-water, page 98, and vegetable jellies, as Arrow-root, page 99, tapioca, sago, &c. will, in general, be sufficient, till the feverish symptoms have nearly subsided.

When the measles recede, blisters to the chest, the warm-bath, and a gentle emetic of ipecacuan powder, are the most powerful remedies that can be employed for its re-expulsion: but such cases being always attended with imminent danger, the *timely* advice of a practitioner in medicine should not be neglected.

If much debility of the system should come on towards the end of the disease, and particularly if purple or black spots appear, the strength of the patient should be supported with cordials, beef-tea, and animal jellies, in order to assist nature in effecting a favourable termination. With this view the rhatany-root or peruvian bark will also be proper, which may be given in the following form:—

Take of infusion of rhatany root, or the decoction of bark, six ounces; extract of liquorice, one drachm; diluted vitriolic acid, two drachms; compound tincture of rhatany root, half an ounce.—Mix. From a dessert to two table-spoonfuls to be taken three or four times a day, according to the age of the patient and urgency of symptoms.

Yeast, on account of the quantity of fixed air it con-

tains, has been employed in this case, for the purpose of counteracting a supposed tendency to putrescence in the system. In some instances it has been administered with success, in the dose of a dessert or table-spoonful four times a day; but in the majority of cases I believe it has proved hurtful, by bringing on purging. If such an effect should follow its use, two or three drops of laudanum may be given with each dose. If the patient should be afflicted with violent purging, it should either be checked or moderated by the Cretaceous Mixture, No. 64, page 71. The propriety of restraining purging must, in a great measure, depend on the appearance of the fæces; for if they be dark and offensive, and the strength of the patient not reduced by the evacuations, they may be considered of a critical nature, and should rather be encouraged than diminished; but to determine a point on which the life of the patient probably depends, the opinion of the most experienced practitioner in the neighbourhood should be resorted to.

After the termination of the disease, there is frequently an inflammatory disposition remaining, which should be removed by gentle doses of the Basilic Powder, as directed No. 36. If cough should, notwithstanding, come on, blisters to the chest, and the Cough Mixture, No. 66, will also be necessary.

Attempts have been made to communicate the measles by inoculation; but I do not believe it ever succeeded, nor could any great advantage result from the practice.

DISTINCTION.—On the *first* attack of measles it is often difficult to distinguish it from common catarrh; in a day or two, however, the violence of the symptoms evince the nature of the disease. It may be distinguish-

ed from other eruptions by the *cough, watering of the eyes, sneezing, hoarseness, difficulty of breathing, and drowsiness*, that precede the eruption.

OF MELANCHOLY.

Melancholy is a mild species of insanity, or rather incipient insanity, so nearly allied to hypochondriacism, as to require a similar mode of treatment. Indeed, it is very difficult in all cases to distinguish the hypochondriac affection from melancholy, the same temperament being common to both. The distinction may be generally ascertained: the hypochondriacism is generally attended with symptoms of indigestion; and though there be at the same time an anxious melancholic fear arising from the feeling of these symptoms, yet while this fear is only a mistaken judgment, with respect to the state of the person's own *health*, and to the danger to be from thence apprehended, the disease may still be considered hypochondriac affection, and distinct from melancholy; but when an *anxious fear* and *despondency* arise from mistaken judgment, with respect to *other* circumstances than those of health, and more especially when the person is at the same time *without any symptom of indigestion*, it constitutes the disease strictly named melancholy; but as a true choleric temperament *may* induce a torpor and indolence in the action of the stomach, so it generally produces some symptoms of indigestion, and hence there may be some difficulty in distinguishing such a case from the hypochondriac affection. When the characters of the temperament are strongly marked, and more particularly when the false imagination turns upon other

subjects than that of health, or when, though relative to the person's own body, it is of a *groundless* and *absurd* kind, then, notwithstanding the appearance of some symptoms of indigestion, the case is still to be considered as that of melancholy rather than the hypochondriac affection: these distinctions, however, bear no reference to any difference of treatment.

The distinguishing character of this disorder, is an attachment of the mind to *one* object, concerning which the reason is defective, and perfect with regard to other subjects. In its treatment, as in hypochondriacism, there is great scope for the management of the mind and passions. The chief point seems to be, to interrupt the attention of the mind to its *accustomed* object, and to introduce *variety* of matter, upon which it may exercise itself. This, however, requires the greatest caution and delicacy in the execution. Most melancholic persons are jealous of being esteemed as such, and have generally a great opinion of their own wisdom and sagacity, and of course are apt to hold very cheap the common amusements of life, especially those connected with social intercourse and company, as they are inclined to think themselves neglected and despised by the world.

Van Swieten recommends travelling as best calculated for the cure of such patients, by introducing a gradual yet interesting variety of objects and subjects of attention, which are the more pleasing as they have not the appearance of being *intentional*. The purpose of travelling also (to those who situation and circumstances admit of it) may be varied according to the disposition of the patient. This esteemed author relates, from his own

knowledge, that several literary persons who were thus affected, would by no means be persuaded to go to any mineral waters for relief, which they thought would confirm the opinion of the world concerning their disorder, but were easily induced to travel for the purpose of viewing several libraries and resorts of learned persons; and the varieties of attention thereby produced, had the best effects in working a cure. He also recommends to endeavour to excite such passions as are of an *opposite* nature to those that have prevailed during the course of the disorder. Thus the timid are to be supported with such arguments and discourse as may tend to rouse the courage and resolution; the gloomy are to be cheered with merriment and pleasure; and the violent and passionate to be restrained by fear. Even shame, observes Dr. Falconer, may be sometimes used successfully in preventing the consequences at least of melancholy. Plutarch relates, that the virgins of Miletus were seized with an epidemic madness, that prompted them to destroy themselves; which was in vain attempted to be prevented, until it was ordered that the bodies of those who thus put an end to their lives should be dragged naked through the streets: shame here proved a more powerful motive than the sense of duty, or any of the social affections.

It is generally found conducive to the cure not to contradict *too peremptorily* the ideas and opinions of the patient. Opposition, if *too direct*, serves only to irritate the temper, and to confirm erroneous opinions. Such a degree of compliance as expresses only a *moderate* assent often succeeds. When the imagination is not inflamed by opposition, it often corrects itself.

Sometimes, indeed, when the senses are *violently* depraved, it may be necessary to feign a more entire acquiescence with the opinion of the melancholy person. The introduction of sports and amusements, and such employments as consist of moderate exercise of the faculties, are likewise proper. (See treatment of the *Hypochondriac Passion*.) Cœlius Aurelianus recommends for this purpose, that *literary* people should be amused with *philosophical* questions; that the *farmer* should be entertained with discourses on *agriculture*, and the *sailor* with *naval* affairs. Others, he says, may divert themselves with games of chance. Music, for those who have a taste and ear for it, may perhaps be a powerful remedy, and as such is mentioned by Celsus and other writers.

The observations made on the salutary influence of the true Christian religion on the mind, under the treatment of *Hypochondriasis*, equally apply to melancholy.

With the view of strengthening the brain and allaying nervous irritation, the head may be washed with or immersed in cold water every morning. If the general health of the body be disturbed, the treatment recommended for indigestion will also be necessary.

OF MENSTRUATION.

Menstruation is a natural secretion, of a blood-like appearance, from the womb, so named from its occurring once in the course of a month. This periodical discharge appears to be for the purpose of keeping up sanguification, or the making of blood in the body, and a determination thereof to the womb, for gestation.

In consequence of its not appearing at a proper period of life, of irregularity after it has taken place, and too great a secretion, termed flooding, and at the period of its cessation, many derangements in the system occur, all of which I shall consider under this head.

The interruption of the menstrual secretion * may be considered of two kinds—the one when it does not begin to flow at that period of life in which it usually appears, which is termed *chlorosis*, or green-sickness—and the other when, after it has repeatedly taken place for some time, it does, from other causes than conception, cease to return at the usual periods, which I shall consider under the head of *Suppression of the Menses*. And first,

Of the Chlorosis, or Green-Sickness.

The period of menstruation is so different in different constitutions, that no time can be *precisely* assigned as proper to the sex in general. In this country it usually appears about the age of fifteen, but in many more early,

* Ladies are often at a loss how to express themselves when they have occasion to speak of the state of this secretion: the usual term of *regular*, I believe, is often misunderstood both by medical practitioners and patients, as equally applying to the state of the bowels as to this periodical evacuation. The term *menstruate* is much more explicit, and cannot be mistaken by either. Instead, therefore, of the question, Are you regular? the physician may enquire whether she menstruates regularly? or the lady may observe, that she does not menstruate regularly, or that menstruation is either irregular as to its periods, or too or not sufficiently abundant. In the treatment of most disorders it is of importance that the medical attendant should be acquainted with the least irregularity.

and in others not till eighteen, without any disorder being thereby occasioned. It is therefore only to be considered as a *disease*, when some *disorder* arises in the body which may be imputed to its retention, and which is known from experience to be removed by the flowing of the menses. These disorders are, a sluggishness and frequent sense of lassitude and debility, and the various symptoms of indigestion, and sometimes a preternatural appetite, as the longing for chalk, lime, charcoal, &c. The face loses its vivid colour, and becomes of a yellowish hue; the skin pale and flaccid; and the feet, and sometimes great part of the body, affected with an œdematous swelling. The breathing is hurried by any quick or laborious motion of the body, and sometimes occasions palpitation and fainting. A head-ach often occurs, but more certainly pains in the back, loins, and haunches.

CAUSES.—It is supposed to arise from want of due force in the action of the arteries of the womb, or some preternatural resistance in their extremities.

TREATMENT.—The strength of the system should be restored by exercise, and in the beginning of the disease, by cold bathing*, and the use of stomachics, combined with such medicines as are known to produce a determination to the womb, and remove glandular obstructions, as the following pills:—

Take of the ecphratic pill of the Edinburgh pharmacopœia, two drachms; oil of carraway seeds, six drops; prepared calomel, ten grains.—Mix well together, and divide into thirty pills: two to be taken twice a day.

* If there be a preternatural determination of blood to the head or lungs, or the patient be affected with cough, bathing is improper.

The dose should be increased, diminished, or repeated, so as to produce not less than one, or more than two motions in twenty-four hours. If the smallest dose exceed this operation, they should be only used as an *occasional* aperient medicine, to obviate costiveness, and three tablespoonfuls of the following mixture taken three times a day:—

Take of gum myrrh, prepared natron, of each one drachm; salt of steel, one scruple; mint-water, eight ounces.—Mix.

Powdered madder root has been much recommended as a remedy for green-sickness, by Professor Home, of Edinburgh, who directs half a drachm of the fresh powder to be taken three or four times a day; after two days, the learned doctor observes, two scruples may be given; and if this dose should not prove effectual in two or three days, it may be increased to a drachm four or five times a day. It appears, that out of nineteen cases, the doctor cured fourteen by the use of this root. Dr. Cullen, however, states, that in all the trials he made with it, it failed; and in the practice of others it has been attended with no better effect. From the bulk of the dose necessary to be taken, I have never met with a patient who could persevere properly in its use. The extract, which contains a full dose of the virtues of the root in small bulk, is exempt from this objection; it may be taken combined with steel, as the following mixture:—

Take of extract of madder, two drachms; muriated tincture of steel, forty drops; bitter tincture, two drachms; mint-water, eight ounces.—Mix. Three tablespoonfuls to be taken three times a day.

The tincture of black hellebore root, in the dose of a

teaspoonful twice a day (in a wineglassful of water), is much extolled as a remedy for this disorder by Dr. Mead; it has not, however, succeeded so well in the practice of others. Dr. Cullen asserts, that in many trials he never found it to answer. In fact, there is no medicine that possesses *specific* powers in producing menstruation, and therefore the disease is only to be cured by a combination of means, the success of which principally depends on improving the general health of the body, as the ecphratic pill recommended above.

Electricity has been employed as a local stimulus in those cases, and a gentle shock passed through the region of the womb has in a number of instances succeeded.

Frequent and habitual exercise of the body is of the highest importance. It is absolutely necessary to surmount the antipathy which such patients have to an active life. The inclination to indolence is doubtless a symptom of the disease, therefore circumstances are to be proposed to them which will induce them *willingly* to take exercise. Innocent recreations, such as dancing and rural occupations, will answer this purpose.

If the patient suffer much pain in the head, or be affected with giddiness in consequence of a determination of blood to the brain, the feet should be put into warm water every night, and eight or ten ounces of blood extracted from a vein in the foot or arm. If the pulse be full, or if the patient complain of difficulty of breathing, and a sense of tightness across the chest, the *timely* loss of blood from the arm, and a blister to the chest, may prevent consumption of the lungs.

These remedies are adapted to the cure of the *reten-*

tion of the menses, termed chlorosis, or green-sickness; I shall now proceed to the consideration

Of the Suppression of the Menses.

Every interruption of the menses is not to be considered as a case of *suppression*, for the discharge is not always immediately established in its regular course; and therefore if any interruption happen in the space of the first or second year it may be considered as a case of retention, termed *chlorosis*, or *green-sickness*, if attended with the symptoms peculiar to that state. The cases, therefore, of suppression, are such as occur after the flux has *for some time been established* in its regular course, and in which the interruption cannot be referred to the causes of the retention termed chlorosis, but must be imputed to debility, or diminished irritation, or restriction of the vessels of the womb. There are, however, some cases, which depend on *general* weakness of the system; but in such cases the suppression always appears as symptomatic of other affections, on the removal of which its recurrence depends.

A suppression of this periodical discharge seldom continues long without being attended with various symptoms of disorders in different parts of the body, arising from the blood being determined to other parts of the body instead of the womb, and often with such force as to rupture a blood-vessel; hence, bleeding from the nose, lungs, stomach, and other parts, is often produced: besides which, the patient is commonly affected with hysteric fits and indigestion.

TREATMENT.—The treatment of suppression of the menses must be regulated by the state of the body.

When the system is in a plethoric state, the cause generally arises from a restriction of the vessels of the womb, in which case the loss of blood, and the warm-bath to 100 degrees, are the most efficacious remedies.

In all cases, costiveness should be avoided by the use of such aperient medicines as will at the same time produce a determination of blood to the neighbourhood of the womb *, as the following:—

Take of the colocynth pill, with aloes, one drachm; compound pill of galbanum, half a drachm; prepared calomel, fifteen grains. To be well blended, and divided into thirty pills; three of which are to be taken occasionally.

In case of violent head-ach or much cough, the loss of blood, according to the strength of the patient, or symptoms of plethora, will likewise be proper.

The Peruvian bark, steel, and other astringents, usually employed in such cases to strengthen the system, by *increasing* the *constriction* of the vessels of the womb, often do much harm. The feet should be put every night in warm water for ten minutes, and kept warm during the day-time by the use of thick flannel socks. The diet must be regulated according to the symptoms of plethora and debility: if the patient do not suffer from local plenitude, as head-ach, oppression of breath, &c. it should be of the nutritious kind, but not stimulating; wine, particularly Port, and spirits, should be avoided. Exercise is of greater consequence than medicine, as it will obviate plethora, amuse the mind, and promote digestion. If, on the

* For the purpose of immersing the pelvis in warm water, a convenient bath has been constructed, named the Hip Bath.

contrary, it be attended with symptoms of local or general fulness, a low diet should be strictly observed, and all stimulants, as wine, brandy, &c. avoided.

If the system be in a debilitated state, with pallid countenance, the treatment recommended for the retention of the menses should be adopted.

The advertised nostrums for obstruction of menses are very numerous; but no single remedy, it is clear, can be applicable to *all* cases of suppression.

Having considered the two kinds of interruption of the menstrual discharge, I shall proceed to the consideration of the *increased* quantity, termed

Flooding.

The flow of the menses is considered immoderate when it recurs more frequently *, when it continues longer, or when, during the ordinary continuance †, it is more abundant ‡ than is usual with the same person at other times. It is not, however, every *inequality* that is to be considered a disease, but only those deviations that are *excessive* in degree, which are *permanent*, and induce a *manifest state of debility*.

* The usual period is from twenty-seven to thirty days.

† The time of its continuance varies in different constitutions. It seldom continues longer than six days, or shorter than two. In general, females of a lax and delicate constitution have a more copious and continued discharge than the robust.

‡ It is extremely difficult to ascertain, precisely, what quantity is usually discharged; but women themselves can generally inform the physician, with sufficient exactness for regulating his practice, whether the discharge be immoderate. The average quantity is supposed to be about five ounces.

When a large flow of the menses has been *preceded* by head-ach, giddiness, or difficulty of breathing, and has been ushered in by a *cold shivering*, and is attended with much pain in the back and loins, with a frequent pulse, heat, and thirst, it may then be considered preternaturally large; and in consequence of a continuance or recurrence, the face becomes pale, the pulse weak, an unusual debility is felt on exercise, the breathing hurried by much motion, and the back becomes pained in an erect posture; when the extremities become frequently cold, and when, in the evening, the feet are affected with œdematous swelling, we may conclude the flow of the menses to be *immoderate*, and to have induced a dangerous degree of weakness. General nervousness, with affections of the stomach, frequent faintings, and a weakness of mind, liable to strong emotions from slight causes, especially when suddenly presented, are also attendant symptoms.

CAUSES.—It is produced by a preternatural determination of blood to the womb, or a plethoric state of the body, from high living, strong liquors, over-exertion (particularly dancing), violent passions of the mind, application of cold to the feet, frequent abortions or child-bearing, and whatever will induce great laxity, as living much in warm chambers, and especially drinking greatly of warm enervating liquors, such as tea and coffee.

When excessive menstruation occurs after the age of forty, and particularly when it is preceded or succeeded by pains in the region of the womb, some organic mischief may be suspected, which may require the assistance of an experienced surgeon. A

prolonged menstruation is also often the consequence of such disease.

TREATMENT.—When a copious menstruation has come on, it should be moderated as much as possible, by abstaining from all exercise either at the coming on or during the continuance of the menstruation; by avoiding an erect posture and external heat, as warm chambers and soft beds; by using a light and cool diet (such as former habits will allow); by obviating costiveness, by the use of mild laxatives (as castor oil and lenitive electuary); the external and internal use of astringents, to constrict the vessels of the womb, as the application of cloths sprinkled with vinegar over the region of the womb, and three table-spoonfuls of the following mixture taken every four hours:—

Take of red rose leaves, dried, half an ounce; infuse in a pint of boiling water, till cold; then strain, and add diluted vitriolic acid, sixty drops; tincture of rhatany root, one ounce.

If the discharge, notwithstanding the use of these remedies, should continue immoderate, the following lotion should be thrown up the vagina by means of the female syringe:—

Take of pomegranate rind, bruised, three drachms; boil in a pint and quarter of water to a pint, then strain, and add alum, a drachm and half. To be used cold*.

* Astringent medicines should not be employed unless the strength of the patient is much reduced, and the discharge evidently of a passive nature. The employment of astringent injections, before the system has been properly unloaded and the fever abated, by suddenly checking the discharge, may be productive of inflammation of the brain or lungs, or inflammatory fever.

Ipecacuan powder, in the small doses of two or three grains, so as to excite nausea and not vomiting, according to the experiments of Dahlberg, as related by Dr. Murray, has been found to answer in many cases. It should be administered with caution, since it sometimes happens that, by exciting vomiting, it will do more harm than good. Dr. Cullen once met with an accident of this kind, in which the vomiting increased the discharge to a great and dangerous degree. Spontaneous vomiting is however often attended, in such case, with the most decided benefit in checking the discharge; and I have known the exhibition of an emetic dose of ipecacuan powder snatch, as it were, the patient from the jaws of death.

When organic disease of the womb exists, the exhibition of a little mercury in the manner recommended for scrofula, will be necessary during the intervals of menstruation.

In cases of flooding, attendant on miscarriage, or lying-in women, the patient should be kept as quiet as possible, till medical assistance can be procured. If it be very considerable, a cloth wetted with cold vinegar may be applied to the loins and bowels till his arrival.

When flooding occurs during labour, the life of the woman may be considered in such imminent danger, that not a moment should be lost in obtaining the assistance of an experienced *man-midwife*.

PREVENTION.—When flooding arises from laxity of the system or the vessels of the womb, or when the discharge has induced much debility, it will be proper, during the *intervals* of menstruation, to employ cold bathing, and some strengthening medicines, as the following:—

Take of extract of rhatany root, two drachms; vitriolated magnesia, two drachms: dissolve them in six ounces of water, and add aromatic tincture of rhatany, six drachms. Three-tablespoonfuls to be taken three times a day.

Of the Cessation of the Menses.

The most critical period of a woman's life is, perhaps, when the menstrual discharge is about to cease, which generally happens about the 40th or 50th year. If this period be passed over without producing disease, the general health may be considered established; but for the most part the entire cessation is succeeded by a determination of blood to the head, producing violent head-ach, apoplexy, &c. or to the lungs or bowels, occasioning organic mischief. At this period a woman should be very particular in avoiding a plethoric state of the system, by moderate exercise, abstemious diet; and by keeping the bowels open by an active purgative, as the Compound Colocynth pill, No. 46. In case of violent head-ach or giddiness, the loss of blood from the arm will be necessary.

OF THE MUMPS.

This disease, from an atmospheric cause, is often epidemic; by some practitioners it is supposed to be infectious.

SYMPTOMS.—Like other inflammatory affections, it generally comes on with the common symptoms of fever, such as cold shiverings, sickness, vomiting, pain in the head, &c. which are soon succeeded by swelling of the parotid glands, producing a considerable tumour at the corner of the lower jaw; often only

in one gland, but more frequently in both, but sometimes finishing its course in one, and afterwards attacking the other. It increases till the fourth day, and from that period it declines, and in a few days more goes off entirely.

TREATMENT. — This disease commonly runs its course, without either disturbing the general health or producing derangement in the structure of the gland; so that a low diet, and the occasional use of the Neutral Salts, No. 2, or Aperient Mixture, No. 62, is all that is requisite. If, however, the swelling be considerable, and the fever run high, with pain in the head, the application of leeches to the part (and sometimes the loss of blood from the arm, if the patient be of a full habit), a blister to the nape of the neck, and the Saline Mixture, No. 78, will be necessary.

OF NERVOUS DISEASES.

The term *nervous* has been long a very fashionable one, but within these few years it has become more fashionable to attribute complaints to the bile; and hypochondriacs and people of vacant minds, who can think of nothing else but the state of their health, instead of being *nervous*, now complain of being bilious. Of the two terms, that of *nervous* is the most consistent; for, in one sense, every disease that assails the human frame may be termed *nervous*, inasmuch as in all, the nervous system is more or less affected.

The class of nervous diseases comprehends those deviations from health in which the nervous system is primarily or principally affected; and as the body derives

its power of action from the brain by means of the nerves, this class is, of course, very numerous. The nerves are branches from the brain, which ramify all over the body. This complex organ possesses three different powers, which are particularly noticed in the introduction to the first part. The primary moving power of the body residing in it, it is the seat of sensation—the receptacle of our ideas—the scene of all the intellectual operations—and the connecting medium between the body and that immaterial principle denominated the soul. Diseases being influenced by the state of the nervous system, a knowledge of the anatomy of the mind, and the effects of its different emotions on the general health, is of greater importance to the physician than even that of the body. Nothing tends to derange this important system more than the abuse of spirituous liquors. In consequence of being over-stimulated, the nerves receive false impressions, and communicate them to the sensorium; hence external objects, which would otherwise give pleasurable ideas, often excite disgust, and the mind of such a patient is truly wretched as long as he is not under the influence of the exhilarating cordial; by the frequent use of which, the soul itself receives impressions that are incompatible with its reasoning power. Spirituous liquors may for a time exhilarate the mind, but it is an invariable law of the human body, that the spirits are never artificially raised without being afterwards *more* than proportionably depressed; and thus, after the effects of the spirit or wine are gone off, the person uniformly finds himself languid and enervated to a terrible degree. The ideas in the absence of the stimulus have all a gloomy cast,

and every sensation is unpleasant: it leaves an aching void, which nothing can supply but a repetition of the cordial draught, which is no sooner swallowed than another is desired; thus, by degrees, the structure of the brain itself—the very origin or root of the nerves—is injured, and every species of delirium, often amounting to insanity, is the certain consequence*.—

“ ——— An anxious stomach well
May be endured; so may the throbbing head;
But such a dim delirium, such a dream,
Involves you—such a dastardly despair
Unmans your soul, as madd’ning Pentheus felt
When baited round Cithæron’s cruel sides,
He saw two suns and double Thebes ascend.”

Wine, and ardent spirits of every kind, ought only to be resorted to on *extraordinary* occasions, and in a *medicinal* point of view. Persons in good health have no need of them; they are better and stronger without them: for in proportion as they exhilarate, so do they afterwards depress; and the habitual use of them, even in what is generally considered moderation, by too rapidly exhausting the excitability of the system, seldom fails to shorten the natural duration of life. In these observations it must be understood,

“ We curse not wine, the *vile excess* we blame.”

* The nervous cordials of many quacks are an ardent spirit, so powerful that a tablespoonful is equal to a glass of the strongest brandy. These stimulants, by exhausting the excitability, soon blast the vigour, and sap the foundation of the strongest constitution. It is only those whose nervous system has been impaired by the abuse of spirituous liquors, that would, however, receive even a temporary relief from such medicines; and we may conclude that those who have attested their efficacy were addicted to dram-drinking.

For after we have passed the meridian of life, a little wine may be more serviceable than otherwise ; but the exact period when it should be employed must depend on the natural strength of the constitution and occupation of the person. No person in health can require wine till he has arrived to forty : he may then begin with two glasses in the day ; at fifty, he may add two more ; and at sixty, he may go to the length of six glasses in a day ; but not to exceed that quantity, even though he should live to a hundred. Good wine, in old age, keeps up the different functions of the body, on which account it has been aptly called, the "*milk of old age.*" *

" Oh ! seldom may the stated hours return
Of *drinking deep* : I would not daily taste,
Except *when life declines*, even sober cups ;
Weak withering age no rigid law forbids,
With frugal nectar, smooth and slow with balm,
The sapless habit daily to bedew,
And give the hesitating wheels of life

* People are so differently affected by wine, that it is impossible to lay down any general rule for regulating the quantity. Those whose brains are not easily affected by it, may take more than those whose nervous system is irritable. Hence we are to judge by the *effects* on the system, and not the quantity ; for if only half a glass disturb the brain, or inflame the system, it will prove more injurious to the constitution than if a bottle had been taken without such effects : again, people are more susceptible of its influence at one time than another, according to the state of the nervous system, and in some degree even the atmosphere. It is a remarkable circumstance, that people who have been in the habit of drinking wine or spirits till their heads be affected, almost every evening, die apparently of formidable disease of the brain, and yet, on dissection, the brain exhibits no appearance of organic disease. The case, I apprehend, is, that frequent intoxication gradually impairs the electrical powers of the brain, and hence destroys life without producing organic mischief.

Glibber to play. But *youth* has better joys :
And is it wise when use with pleasure flows
To squander the relief of *age* and *pain* ?”

Such as have impaired their general health and nervous system, by frequent intoxication, or the too free use of spirituous or vinous liquors, will receive every benefit medicine can afford, by attending to the directions given for the treatment and prevention of indigestion, page 377.

OF NETTLE RASH.

This eruption is so named from its resemblance to that produced by the stinging of the nettle. It is a very mild disease, and seldom requires the use of medicine. When it is attended with fever, small doses of the Epsom Salt, as directed, No. 2, or the Aperient Mixture, No. 62, with twenty drops of the tartarised antimonial wine, at bed-time, and a low diet, will be sufficient. If it be of a chronic nature, twelve drops of the Diluted Vitriolic Acid, No. 18, may be taken three times a day (in a wineglassful of cold camomile-tea). The aperient sulphureous water, as directed under the head Rochelle Salts, No. 2, page 8, is also a valuable remedy.

OF NIGHT-MARE.

This complaint always happens during disturbed sleep. It comes on with a sense of great weight on the chest, with great horror and agitation of mind ; sometimes the patient imagines he sees spectres of various shapes, which seem to oppress and threaten him with suffocation : he attempts to cry out, but often without

effect; sometimes the uneasiness continues after he awakes, so as to prevent his turning or moving in bed. The studious, and what are termed nervous people, are most subject to this disease.

CAUSE.—This disease is probably produced by compression of the lungs, and the consequent obstruction to the free return of blood from the brain from overdistension of the stomach. Hence, people are most subject to it after a hearty supper, and on lying on the back with the head on a level with the chest.

TREATMENT.—If the patient be of a plethoric habit, the loss of blood will be proper. The use of the Aperient Mixture, No. 62, a spare diet, due exercise during the day, a light supper, keeping the feet warm by wearing flannel socks, and obviating costiveness, by the occasional use of the Cathartic Extract, No. 46, will in general be sufficient.

If the patient be what is generally termed nervous, a teaspoonful of the volatile tincture of valerian, taken twice a day in a wineglassful of cold camomile tea, affords the most efficacious remedy.

When it arises from indigestion, the ground Jamaica Ginger, No. 49, taken at night in a little water, will prevent its recurrence. (See Indigestion.)

OF PAIN IN THE EAR, OR EAR-ACH.

Acute pain in the ear, to which children are chiefly subject, most frequently arises from inflammation. It is accompanied by a sense of throbbing pain, and noise in the ear; sometimes deafness, and general symptoms of fever. In every affection of this kind, dispersion of

the inflammation is to be attempted, first by dropping a little laudanum into the passage, and by the application of a blister behind the ear, which should be kept open till the symptoms are considerably abated.

In all cases of a slight nature this treatment will be found to succeed; but in more violent affections, suppuration is often unavoidable: the tendency to which is marked by an increase of pain in the organ, and by a *more general* affection of the head. The only treatment then left is to endeavour to promote suppuration by fomentation, or by injecting warm water into the ear, by means of a syringe. A poultice has also been advised, but the situation renders it an inconvenient form.

When matter once appears, it is to be removed by injecting warm water into the ear. Should the discharge be too profuse, or long continued, mild astringent injections will be necessary, consisting of five grains of acetated ceruse, or vitriolated zinc, in eight ounces of rose-water.

Sometimes the disease extends to the bone, in which case, before a cure can be effected, exfoliation will take place.

As deafness is sometimes the consequence of this complaint, the advice of an experienced surgeon should be taken in the first instance.

OF PALPITATION OF THE HEART.

This affection arises from morbid irritability of the heart. The beating is frequently so violent as to be heard at a considerable distance, and sometimes the ac-

tion of the heart may be perceived on the outside of the clothes.

TREATMENT.—The treatment of this disease, like most others, must depend on the state of the system; for the morbid irritation may be the effect of increased vitality, or fulness, or of debility and relaxation, or, in other words, the inordinate action of the heart may be the consequence of super-irritation or sub-irritation. If the system be in a *plethoric* state, the loss of blood, and the use of the Aperient Mixture, No. 62, will be necessary. In case of general debility, twenty drops of ether, with a teaspoonful of tincture of castor, in a small wineglassful of valerian tea, two or three times a day, will prove serviceable. When it arises from *malformation* or *disease* of the heart, or of the large vessels, relief may be obtained by avoiding plethora, much bodily exertion, full meals, and excesses of every kind, with the use of such medicines as are calculated to allay nervous irritability, as camphor, valerian, laudanum, and ether. When the action of the heart is very violent, from ten to twenty drops of the tincture of foxglove may be taken two or three times a day, in three tablespoonfuls of the saline mixture, and a blister applied to the left side: if its violence should not abate after the use of these remedies for two or three days, two grains of hemlock powder may likewise be taken every six or eight hours.

This affection is sometimes symptomatic of water in the pericardium, which chiefly occurs in aged people; when small doses of calomel (about one or two grains) taken every night for a fortnight, or till the mouth is rendered tender by it, and twenty drops of muriated

tincture of steel, in a glass of water, three times a day, with the jolting of a carriage once a day*, will prove beneficial.

This disease is sometimes the consequence of the communication between the auricles of the heart, which exists during the foetal state, remaining unclosed; such a case will only admit of the palliative means of avoiding plethora, violent exercise, and emotions of the mind.

As the heart receives its power of action from the brain, washing the head with cold water every morning, by allaying morbid irritation of that organ, has been very serviceable in cases of palpitation.

PALSY.

This is a disease of diminished irritation of nerves, sometimes of the whole body, more frequently of one side, rarely the lower extremities from the loins, and sometimes confined to a muscle or nerve, as of the bladder and anus, suffering the urine and stools to pass off involuntarily; sometimes the muscles of the tongue, occasioning stammering and loss of speech; sometimes of the optic nerve, producing the disease called *Gutta Serena*, or imperfect vision; and sometimes the nerve of

* The exercise on the box of a carriage (without springs) is preferable to that of the inside of a carriage: but the nature of the disease should be well ascertained before such a remedy be employed, for if it arise from aneurism of the aorta, or any organic affection of the heart, such exercise will prove very hurtful.

the ear, producing deafness. In bad cases, where one half of the body is paralysed, the speech is much impeded, or totally lost, and convulsions often take place on the sound side. The muscles of the affected side of the face being relaxed, give those of the opposite side an appearance of being drawn up or contracted; and the patient, having the power only of putting those in action on the *well* side, appears, on speaking, to elevate the corner of the mouth, so as to amount to a kind of grin or laughter, which is only owing to the muscles of the *opposite* side being in a relaxed state. The paralytic part often gradually decays, shrivels up, feels much colder than any other part of the body, and with a weaker action of the arteries.

CAUSES.—This disease consists in diminished irritation, in consequence of compression, poison, or the division of a nerve. Of the compressing causes, distension of blood-vessels of the brain, effusion of blood or serum within the head, or tumours, are the principal; and of the poison, lead. It is sometimes, but very rarely, the consequence of extreme debility.

TREATMENT.—When it is produced by compression of the brain, from distension or effusion, the paralytic numbness is only symptomatic of apoplexy, and as such should be treated. (See Apoplexy.) If, however, the palsy continue *after* the compression of the brain is evidently removed, it should be treated as local palsy, by external stimulants, as friction with flannels, or mustard flower, and blisters. Electricity, so much recommended for paralytic affections, by stimulating the brain and sanguiferous system, is a

dangerous remedy, and may, by producing a determination of blood to the head, occasion a fatal recurrence of apoplexy*. The organs of digestion should be invigorated by such stimulating medicines as will not, at the same time, increase the action of the heart and arteries; for this purpose a small teaspoonful of powdered Jamaica Ginger, No. 49, may be taken twice or thrice a day, or a pill of two grains of Cayenne pepper. The peristaltic motion of the bowels should be kept up by taking five or ten grains of the aromatic pill twice a day, or in such quantity as to produce *one* stool every twenty-four hours. A seton in the nape of the neck, particularly if the patient be affected with giddiness, will afford considerable relief, by preventing plethora. The food should be nutritious, but taken in moderate quantities; and, for the purpose of keeping the body warm, flannel should be worn next the skin. If partial palsy be occasioned by the compression of a tumour, its removal, if practicable, is first necessary, in which the health of the part may be recovered by local stimulants and friction. When the lower extremities are paralytic, a seton should be applied over the os sacrum; or in case of distortion or disease, in the back, over or on the side of the part affected. As the latter causes are of a scrofulous nature, the treatment recommended for scrofula should be employed. When

* This effect of electricity is by no means unfrequent. I have known several instances of apoplexy immediately to follow the application of electricity; and when palsy is the sequel of an apoplectic fit, this stimulus should never be employed.

palsy is confined to a muscle or a limb, the topical application of electric sparks and a blister, will prove serviceable. When it is produced by poison, the part should be stimulated by electric sparks, mustard poultices, and the Mixture, No. 74, or 71, taken as there specified.

Sumach has lately been recommended by Dr. John Alderson as a remedy for palsy. The doctor, in a treatise on its virtues, relates several cases of palsy, in which it proved successful. A grain of the powder is directed to be taken in any convenient vehicle twice a day, and to be gradually increased to three or four grains. From the account given of it by Dr. Alderson, it appears to have effected more in the cure of palsy than has ever been ascribed to any other remedy, and such as justly entitles it to the attention of the *medical profession*. On the continent it is however considered a powerful poison, and therefore should be given with great caution. In one of the cases, the dose was increased to ninety grains night and morning; and in some it appears that even two grains produced pain in the stomach and bowels, and considerably deranged the nervous system.

We often meet with cases arising from morbid irritability of the brain and nervous system, in consequence of mental or corporeal exertion, to which the name of palsy is generally given. The species is generally aggravated by stimulating or tonic medicines. The use of the Epsom salts, as directed page 9, to obviate costiveness, the spirit of nitre, as recommended page 20, and the application of cold water to the head every morning by means of the shower-bath,

I have found most beneficial: as the mind is also much affected, the directions for its management, given under the head of Hypochondriacism, are also necessary.

When the cause of palsy is not evident, the treatment recommended for indigestion should be adopted.

PECTORAL ANGINA.

This disease passed unnoticed, by practitioners, till the late Dr. Heberden published a description of it about forty years ago; and although it is by no means rare, it is little understood by the physicians of the present day. It is evidently of a spasmodic nature. It arises from morbid irritability of the nerves of the heart, and often the consequence, or attended with diseased structure, particularly of the artery destined to convey nourishment to the heart; the paroxysms are therefore brought on by bodily exertion and mental agitation. When excited by walking, the fit will often instantaneously cease on standing still; but after it has continued some time, it will attack the patient, not only on walking, but also on lying down, with such violence as to oblige him to rise up immediately in order to prevent suffocation. The fit commences with an acute pain beneath the lower part of the breast bone, attended with a sense of constriction. The pain inclines rather to the left side, and often extends to the left arm, accompanied with great anxiety, difficulty of breathing, and a sense of suffocation. The late Dr. Fothergill observes, that *a sharp constrictive pain across the chest is the characteristic*

symptom of this disease. No age is exempt from it. It attacks men more frequently than women, and particularly the short necked, the corpulent, and sedentary.

CAUSES.—In young people this disorder probably arises from nervous irritability of the heart or internal muscles of the chest; but in elderly people this state is generally accompanied with some *organic* disease of the heart, or the coronary arteries*.

TREATMENT.—Our object in the treatment of this disease, is to allay the morbid irritability of the nervous system. If the sanguiferous system be overloaded, or what is termed in a plethoric state, it will be necessary to reduce it by the extraction of eight or ten ounces of blood from a vein in the arm; and, if there be considerable irritation in the chest, a blister should be applied over the breast bone. The bowels should be kept open by the occasional use of the Epsom Salt, as directed No. 2, page 9; after which two of the following pills may be taken two or three times a day :—

Take of the flowers of zinc, two scruples; extract of hops, one drachm; extract of henbane, one scruple; oil of mint, twenty drops.—Mix; and divide into thirty pills.

If the paroxysm be violent, about thirty drops of ether, and ten of laudanum, may also be taken immediately on its attack. The diet should be light, and

* A few months since I attended, with Mr. Charles Bell, to examine the chest of a gentleman who died suddenly of this disease. The coats of the coronary arteries were so diseased as nearly to obliterate their cavity. The heart was also preternaturally large and flaccid.

free from every thing of a stimulating nature, as spices, wine, spirit, and fermented liquors. The patient should be very careful not to over-load the stomach, or to use any kind of exercise immediately after meals, and to guard against any emotion of the mind. As corpulence is a predisposing cause of the disease, the patient should endeavour to avoid it, by exercise, a spare diet, and the use of laxative medicines; an issue in the arm will likewise prove very beneficial in this respect. Dr. Darwin and Dr. Macbride have published several cases of this disease, that were effectually cured by issues alone.

If the patient be emaciated, his countenance pallid, and particularly if the legs swell in the evening, thirty drops of the ethereal tincture of steel, in three table-spoonfuls of the infusion of rhatany root or columbo, will afford great relief. This case being attended with such great debility of the system, it is scarcely necessary to observe that bleeding or an issue is improper.

OF PILES.

This disease consists in one or more tumours, situated sometimes externally and sometimes within the verge of the anus, for the most part attended with a discharge of blood. When there is no discharge, it is termed *blind piles*; and when the discharge is only serum, *white piles*. This disease, at first, is generally local; but by frequent occurrence, the constitution becomes so habituated to the discharge, as to render it in some degree constitutional; in which case it is preceded by head-ach, stupor, giddiness, and other symptoms

of fever, with a sense of tightness or fulness, heat and itching, and a sense of dragging down about the anus; or otherwise symptoms of indigestion, as flatulency, acidity in the stomach, &c. often attended with spasms. Sometimes the inflammation of one tumour runs so high as to terminate in the formation of matter, and thus produce the sinous ulcer termed fistula.

CAUSES. —This disease may be occasioned by whatever interrupts the free return of blood from the rectum; such as a collection of hard fæces, or an impregnated or enlarged womb. It is sometimes produced by irritation; hence aloes, or the pills advertised under the title of the Scotch pill, are very apt to excite piles by irritating the rectum. The piles are sometimes the effect of relaxation and debility, and I believe not unfrequently arise from an inflammatory action in the rectum, and a diminished secretion of mucus from its inner membrane.

TREATMENT.—When *costiveness* is the cause, the Electuary for the Piles, No. 85, or the Aperient Sulphureous Water, taken as directed, page 10, will remove it and quiet the parts. If, after the due operation of either of these medicines, the disease should continue, the parts should be anointed with the Ointment, No. 105. In case of much inflammation, general bleeding and the application of leeches to the part will be necessary, to prevent the formation of fistulous ulcers; and the patient should keep in an horizontal position, and strictly observe a low diet: if irritation be the cause, the same mode of treatment should be pursued, with the occasional use of Laudanum, No. 31; and if it be the consequence of relaxa-

tion, the Tonic Mixture, No. 77, and the application of a decoction of oak bark (made by boiling half an ounce of the bark in a pint of water, for about ten minutes), should be frequently applied to the part. *Astringent* and *cold* applications should, however, be employed with great caution, and not without the advice of a surgeon, as apoplexy has followed the sudden dispersion of piles.

If the discharge of blood in either case be *considerable*, the patient should be kept quiet, and in a reclining position. He should make use of a *cold* diet, and avoid stimulants and external heat.

When the constitution has become habituated to the disease, and the parts suffered much from its frequent occurrence, stimulants, as pepper, and ginger, taken with the aliment, often afford considerable relief. A stimulating electuary, known by the name of Dr. Ward's Paste, has been much puffed off, and even recommended by regular practitioners. The following is an exact copy of the doctor's receipt for making the paste, as published by John Page, Esq. to whom he bequeathed his book of recipes:—

Take of elecampane powder, two ounces; sweet fennel seed powder, three ounces; black pepper powder, one ounce; purified honey, and brown sugar, of each two ounces. The size of a nutmeg to be taken two or three times a day.

Ginger powder, and black pepper, generally have a very salutary effect in piles, although attended with great irritation and even a degree of inflammation, which one would suppose, from their stimulating qualities, they would be more likely to increase. Such medicines probably afford relief, by producing

an increased secretion of mucus from the inner membrane of the great gut*, and by invigorating the hæmorrhoidal vessels.

In *elderly* people piles are very frequently the consequence of some organic disease of the great gut, in which case the early advice of an experienced surgeon should be taken; as by topical management, and the use of alterative medicines in the first stage, much serious mischief may be prevented. Indeed, no disease can be more distressing than schirrous contraction of the rectum.

An erysipelatous inflammation at the anus is very often mistaken for piles, by people who are unacquainted with the disease. This complaint is attended with a most troublesome degree of itching, and often an ichorous discharge. It soon yields to the following ointment:—

Take of citron ointment, spermaceti ditto, of each equal parts. To be well mixed together in a glass mortar, and rubbed over the affected parts two or three times a day. The solution of the Epsom salt, as directed page 9, should accompany its use.

The parts are likewise subject to excrescences or warts, which are often mistaken for piles; these may be removed by ligature, caustic, or the knife. The excision of them by the knife is preferable, on account of being more expeditious, less painful, and attended with no danger. The daily ablution of the parts with

* The application of stimulants to inflamed secreting surfaces has often a very happy effect, by producing the natural secretion of the parts, and exciting them to a healthy action. In the same manner, it is probable, aromatics prove serviceable in colicky, and even inflammatory, attacks of the bowels.

cold water will afterwards destroy the disposition of the skin to their formation.

The recurrence of piles will be best prevented by obviating costiveness, by proper management of diet, cold bathing, and general bleeding in full habits.

OF PLEURISY.

Inflammation of the membrane termed pleura, which covers the lungs, and lines the internal surface of the thorax, is thus termed. It is attended with the same symptoms as inflammation of the lungs, but generally in a slighter degree; but the same mode of treatment, with respect to medicine, diet, &c. is to be pursued for the recovery of the patient. (See Inflammation of the Lungs.)

OF THE PUTRID SORE THROAT.

SYMPTOMS.—This disease, also termed malignant sore throat, commonly commences with alternate chills and heats, pain and heaviness of the head, a strong expression of anxiety in the countenance, and other symptoms of fever, which are soon succeeded by slight swelling of the throat, the tonsils becoming inflamed and tumid, which rapidly spread to the neighbouring glands. The fauces have a high florid, or bright crimson, appearance, somewhat shining or glossy, and soon attended with whitish or ash-coloured spots, which increase rapidly, and terminate in ulcers, more or less superficial; the tongue at the same time

becomes foul, the breath exceedingly offensive, with general irritation or disturbance of the nervous system. The feverish symptoms are much aggravated towards night, and accompanied with delirium. The disease gradually grows worse; and about the third day, the patient is affected with nausea, griping, and dysentery (probably in consequence of the discharge from the ulcers passing into the stomach). There is commonly (especially with children) a partial or general crimson efflorescence of the skin, or an eruption of small pustules, which relieves the affection of the stomach and bowels; the early and kind appearance of which is therefore to be considered a favourable omen.

CAUSES.—This disease is supposed to be produced by a peculiar specific contagion, and to be highly infectious, but it is probably occasioned by some atmospheric cause. It affects all ages, occurs at all seasons, and prevails in all situations.

TREATMENT.—This species of sore throat is generally terminated by a natural course; the chief object of its medical treatment is therefore, in the first instance, to moderate the fever in its progress, and to combat unfavourable symptoms. With the first view, a full dose of Ipecacuan Powder, as directed No. 23, should be administered on its commencement; and after its due operation, the Saline Draught, in a state of effervescence, as directed page 29. If the emetic should not operate on the bowels, half an ounce of the Epsom salt should be administered: but both emetics and purgatives should be employed with caution; for should they produce violent diarrhoea (to which there is generally a great disposition), they will, by reducing

the strength of the system, tend to accelerate its fatal termination. On the contrary, if the fæces be black and offensive, and the patient's countenance and spirits improved by the evacuations, gentle purgatives will be very proper. The antimonial powder, generally resorted to on the attack of *all* fevers, is, in the second stage of this disease, a very dangerous medicine, and, by reducing the vital powers, has been productive of the most serious mischief, many instances of which have been noticed by Dr. Munro, who states "that he has known it to have hurried many to their graves in a few hours." The early application of a blister to the throat, and the use of the Acidulated Gargle, No. 93, page 77, will tend much to abate the inflammation and the consequent ulceration. When the diseased parts begin to suppurate, the saline draught should be discontinued for the Tonic Mixture, No. 77, page 73, and the Detergent Gargle, No. 95, used instead of the astringent one. The patient should be supported with strong beef tea, and arrow-root jelly; and if incapable of taking a sufficient quantity by the mouth, the Nutrient Lavement, No. 99, page 79, should be injected three times a day. In case of violent purging, the Anodyne Clyster, No. 96, will be proper, or forty drops of laudanum may be added to the nutrient clyster; and if the patient be not able to swallow the bark mixture, two drachms of Peruvian bark powder may likewise be added. The room should be fumigated twice a day with the Nitrous Vapours, as directed page 102. The evaporation of the Acetic Acid, as advised No. 38, page 52, will, in a small room, answer as well in de-

stroying putrid particles in the atmosphere; but, for the purpose of inhaling, is by no means so efficacious as the nitrous vapours. As pure air is of great consequence to the patient, the fæces should be received into a pot with some vinegar in it, and immediately conveyed from the house.

The spirits of the patient should be supported by inspiring a confidence of recovery, and by keeping from him every thing that is likely to depress them, as funerals, passing-bell, the fatality of the disease in the neighbourhood, and particularly that of a friend. Even charms might be used with good effect could we promote a strong prepossession of their efficacy, either by the confidence they inspire, or by their engrossing the attention of the mind. Aretæus, fully sensible of the necessity of supporting the strength of the system in general, and how much this depends on the spirits, expressly counsels the patient "to be of good heart; and advises the physician to entertain him with such discourse as might tend to encourage his hopes of recovery." Hope and confidence are as necessary for the prevention as the cure of fevers attended with general nervous irritation.

The first stage of this disease is highly inflammatory, and therefore the treatment must be regulated by the symptoms as well as the state of the constitution. As the result depends on the degree of irritation it produces in the cerebral system (brain and nerves), it is of great consequence to lessen the violence of the inflammatory stage; and for this purpose, in a plethoric habit, the extraction of blood may prevent much mischief: but this is a remedy which may endanger

the life of the patient, if the powers of the system have in any degree given way; for when the sloughing process has commenced in the fauces, the recovery of the patient will depend on the strength of the body. Cold water applied to the head, and even to the surface of the body if the skin be dry, is a very important remedy, and should be frequently employed.

OF RHEUMATISM.

This disease commonly occurs in autumn and spring, and seldom in winter or summer, unless the vicissitudes of heat and cold be sudden and frequent. In a plethoric habit, or when attended with fever or super-irritation, it is called *acute* or *inflammatory rheumatism*; and when with sub-irritation, *chronic rheumatism*.

Of Super-irritative or Acute Rheumatism.

SYMPTOMS.—This species commences with the usual symptoms of fever, accompanied with pain, swellings, and redness of the joints, generally of the knees, hips, ankles, shoulders, elbows, and wrists, while the smaller joints of the toes and fingers are seldom affected. The *fever* rarely continues violent more than *fourteen* days, although sometimes the *pain* keeps shifting from one joint to another for some weeks. The pain and sometimes the fever is much increased in an evening, and the former, during night, is often acute. As the pains become fixed, the fever generally abates.

CAUSES.—It is produced by exposure to cold, when

the body is unusually warm, or by its *partial* application, or from a *continuance* of cold—as wet clothes, &c.

TREATMENT.—The first object in the cure of this disease is, to abate the constitutional fever; for as long as the febrile symptoms run high, all topical applications will prove unavailing. For this purpose, particularly if the patient be of a plethoric habit, general blood-letting will be proper, and afterwards the occasional exhibition of the Aperient Mixture, No. 62, page 70, or either of the Neutral Salts, as directed No. 2, page 8; after the due operation of which, the Antimonial Febrifuge Powder may be exhibited, as directed No. 37, page 51; or if the pain be very severe, the following draught at bed-time:—

Take of Tartarised Antimony Wine, No. 16, thirty drops; Liquid Laudanum, No. 31, fifteen drops; Camphorated Julep, No. 28, one ounce.—Mix.

Half a pint of *weak* white-wine whey should be taken in about an hour after this draught, to promote its sudorific operation, and the mixture, No. 63, page 71, taken every four or five hours during the day-time, in order to keep up its effects. The draught may be repeated every night till the symptoms are considerably abated. If the inflammation run high, the application of six or eight leeches to the part will be necessary. When the fever is abated, and the pains become fixed, the parts should be well rubbed with the Volatile Liniment, No. 103, page 10, or Opodeldoc, No. 5. In case the pain and inflammation continue obstinate, the use of the warm-bath once in twenty-four hours, and blisters to the parts affected, will prove powerful auxiliaries to these remedies.

Opium, in the dose of one grain, three times a day, is often very beneficial in acute rheumatism; but the loss of blood, and the use of aperient medicines, should be premised. Exposure to cold should be avoided, and a low diet observed. Common whey, taken warm, affords an excellent medicinal beverage.

Electricity is a very popular remedy for chronic rheumatic complaints; but for this species, by increasing the fever, it is uniformly hurtful. It should, therefore, never be employed till the complaint becomes of a chronic nature.

Of Sub-irritative or Chronic Rheumatism.

SYMPTOMS.—When the febrile symptoms, together with the swelling and redness of the joints attendant on the super-irritative rheumatism have entirely abated*, and the pain still continues to affect certain joints with stiffness or uneasiness of motion, on change of weather, the disease is termed *chronic rheumatism*, which often continues a length of time. The joints most surrounded by muscles, and the parts that suffer much by bodily exertion, as the hip and the loins, are commonly the seats of this complaint. When it affects the hip joint, it is named *Sciatica*; and when situated in the loins, *Lumbago*.

TREATMENT.—The indications of cure are exactly opposite to that of the *acute* or *inflammatory* species; the latter being attended with an *increased* vitality of the

* The period of *acute* rheumatism seldom or ever exceeds forty days; after which, if the pain continue, it may be pronounced *chronic*.

system, and the chronic with *diminished* vitality or debility. The energy of the system should be roused by a warm stomachic medicine, as the Anti-rheumatic Mixture, No. 71, page 72, and the parts affected stimulated by electric sparks, the Volatile Liniment, No. 103, friction, and the application of flannel. If these means prove ineffectual, the application of a blister, or the following stimulating plaister, will be necessary :—

Take of Burgundy pitch plaister, one ounce ; gum euphorbium, in fine powder, one drachm.—To be well mixed, and spread on leather.

The *hot-bath* may likewise be employed with advantage.

If the system be in a very debilitated state, or if the stomach do not perform its office, a drachm of the essential salt of bark, or extract of rhatany root, may be added to the anti-rheumatic mixture : a little of the farina of the Jamaica ginger may likewise be taken in the common drink. The diet should be generous, and the common beverage the spirit of juniper (commonly called gin), diluted with water.

If the disease be attended with emaciation of the body, and particularly with an exacerbation of pain in the evening or during night, two of the following pills may be taken twice a day, with a quarter of a pint of the compound decoction of sarsaparilla :—

Take of prepared calomel, twelve grains ; gum guaiacum, one drachm ; extract of poppies, half a drachm ; golden sulphur of antimony, one scruple.—Mix, and divide into thirty pills.

The Compound Decoction of Sarsaparilla, No. 118, page 84, should be taken to the extent of a pint a day. A decoction of the leaves of the oleander or rosebay, in

the dose of a wineglassful three or four times a day, has been strongly recommended as a remedy for *chronic* rheumatism. This decoction is made by boiling half an ounce of the leaves in a pint of water till one-fourth be consumed. It will be adviseable to begin with the small dose of a tablespoonful at first, and gradually increase it to a wineglassful.

The sub-irritation of the membranes of joints, which constitutes chronic rheumatism, often occurs in persons whose general health is otherwise good. One office of the nerves being to conduct animal electric matter from the brain, rheumatic pains are often occasioned by some interruption to this subtile fluid, in consequence of diseased structure or contracted state of the nerves, or by a dry state of skin, not affording a conducting surface. Hence friction, by producing an equal distribution of the animal electric matter, and favouring the escape of any superabundance to the air, is often highly beneficial. With these views I have recommended a brush with metallic wires distributed through the hair, and terminating in the handle, for the purpose of more effectually conducting superabundant electric matter from the body. This brush, in cases of local pains from super-irritation and sub-irritation, and inflammation of nerves, as gout, I have lately found more efficacious than liniments, or any external application. In acute pains in the head, it often affords immediate relief. One important office of the nerves being to conduct electric matter from the brain, people of irritable nerves suffer local pains on changes in the atmosphere.

PREVENTION.—Cold bathing, and the use of flannel

next the skin, are the most effectual means of preventing the recurrence both of chronic and acute rheumatism.

DISTINCTION.—Rheumatism may be distinguished from gout by not being *preceded* by pain in the stomach, symptoms of indigestion, and cramp of the extremities; by being seated in the *larger* joints, while the gout affects principally the *smaller* ones; occurring at an earlier period of life; *not* being *hereditary*, and in general can be traced to some exciting cause, particularly the action of cold. It is exceedingly difficult to distinguish rheumatic pains from those produced by deep-seated inflammation, and from such mistakes the most serious consequences often arise, particularly when situated in the loins or hip joint; the stimulating applications, as electricity, &c. employed for the cure of rheumatism, increasing the inflammation, and occasioning extensive suppuration, which generally terminates in the death of the patient. Such mistakes have happened even in regular practice; and through the imprudent use of quack medicines, such terminations are very frequent. Lumbar abscess, a very formidable disease, begins with pain in the loins, resembling lumbago; the only chance the patient has of recovery, in such case, is the prevention of the formation of matter: in all *doubtful* cases, therefore, the application of a blister, cupping, and the use of the following diaphoretic medicine, should be employed instead of the *stimulating* plan recommended for chronic rheumatism:—

Take of Camphorated Julep, No. 28, five ounces; Mindererus's Spirit, No. 10, three ounces; Sweet Spirit of Nitre, No. 15, three drachms.
—Mix. Three tablespoonfuls to be taken every four or five hours.

OF RICKETS.

This disease is peculiar to infancy, seldom appearing after the third year, or before the ninth month, but generally in the intermediate time. The first symptoms are an enlargement of the head, face, and belly; while the other parts of the body diminish in bulk, except the joints of the hands, arms, knees, and feet, which become irregularly tumefied; the bones lose their solidity, so as to give way to the weight of the body; hence those which are employed for that purpose—as the legs, thighs, and back-bone—become crooked and distorted, and the child, of course, walks with more and more difficulty, and sometimes it entirely loses the use of its feet. The veins of the neck, and those that surround the large joints, are generally much distended, while those of other parts of the body appear in a diminished or contracted state; the countenance is lively, the cheeks full, and often florid, and the faculties of the mind sometimes impaired, but more frequently it possesses a premature acuteness of understanding. As the disease advances, the sides of the chest become flattened, the breast bone elevated, often in a point, and the ends of the ribs knotty; the teeth generally come forward at a late period, and soon turn black and decay, or become loose and fall out; the pulse is quick and feeble; the appetite sometimes good, but the digestion evidently bad, being frequently attended with flatulency and a vomiting of an acid matter.

This disease seldom proves fatal, unless fever and

consumption of the lungs supervene: but after the fourth or sixth year, the child generally gains strength, and the bones of the legs, though very crooked, often become straight as it grows up, while the distortion or the curvature of the back bone frequently increases.

CAUSES.—Scrofula is a disease arising from tender structure of the lymphatic system; while rickets arises from debility or delicate structure of another set of vessels engaged in the mutation or support of the body, termed the secerning extremities of arteries, whose office is to deposit nutriment; in consequence of which, the bones and muscles are not properly nourished, the former not being equal to sustain the weight of the body, and the latter becoming flaccid. From the frequency of this disease in marshy countries, a moist atmosphere has been noticed by medical writers as a *predisposing* cause. Some attribute it to bad nursing, the use of acescent food, and whatever may tend to debilitate the body: others, with less probability, have attributed it to scrofula, or venereal taint in the parents. In those who have died of the disease, the mesenteric glands, the liver, and lungs, have been found enlarged, and the bones nearly destitute of the earthy matter which gives them firmness and shape.

Dr. Bobba, of Italy, some time since presented to the Medical Society, at Paris, some remarks on the cause of rickets. The bones owing their solidity to phosphate of lime, he ascribes the cause of rickets to a want of this substance; but whether the phosphate of lime be entirely wanting in the system, or the vessels destined for its disposition in the bones be too weak to

perform their office, the doctor does not take upon himself to determine.

TREATMENT.—The first object to attain towards the cure of this disease, is a proper digestion of the food ; for which purpose it will be necessary to clear the first passages by an emetic of Ipecacuan Powder, as directed No. 23, and to empty the intestinal canal by an active dose of Calomel, No. 34, or the Basilic Powder, No. 36 ; after which, a dessert or table-spoonful of the following mixture may be given three times a day :—

Take of extract of the rhatany root, one drachm ; dissolve in lime-water, six ounces ; then add, tincture of cardamom seeds, half an ounce.

If the fæces should continue pale after this medicine has been taken a week, a grain of calomel should be given every or every other night, in a little currant-jelly or sugar ; and if the bowels should not be relieved twice, or at least once, a day, the basilic powder should be repeated. The alterative dose of calomel should be continued every other night for a week, or till the stools become of a proper yellow appearance.

After the disordered state of the digestive organs is corrected, cold bathing may be employed, for the purpose of strengthening the nutrient vessels of the body.

If, notwithstanding these remedies, an acidity continue to prevail in the stomach, which is frequently the case, the emetic of ipecacuan powder should be repeated, and the patient should, besides the mixture, take the Prepared Natron, as directed No. 60 ; and when the symptoms of indigestion have subsided, the mixture need not be taken more than once a day (about an hour before dinner). The limbs, and even bowels,

should be well rubbed every night and morning with the flesh-brush, flannel, or a warm hand.

If the bones of the lower extremities be much curved, they should be supported by instruments, so made as to take off the weight of the body, by sustaining the pelvis, and at the same time to produce a slight pressure on the *distorted* parts of the bones. If the child be a female, great care should be taken that the instrument does not compress the bones of the pelvis. Many a case of distorted pelvis has no doubt been produced by the pressure of improper instruments on these bones. Some practitioners discountenance the use of instruments in the curvature of the bones of children; but as they cannot produce mischief when properly made, I think it would be more prudent to employ them, when the bones of the legs or thighs evidently give way.—For mere enlargement of the knees, they are certainly unnecessary.

The want of solidity in the bones arising from a deficiency of the phosphate of lime, Dr. Bobba recommends this preparation to be administered internally, in order to supply it to the blood; but the disease is not the consequence of a deficiency of the phosphate of lime in the system, but the debility of the vessels whose office it is to deposit it in the substance of the bones.

The muriated tincture of steel, in the dose of five drops, twice a day, in a little water, is a very valuable remedy in the advanced stages of rickets.

The Peruvian bark is much recommended as a strengthening medicine in cases of rickets. It is not so efficacious as the mixture of rhatany and lime-water noticed above. The use of issues in cases of rickets is

much to be doubted. The discharge cannot be beneficial, but, by increasing the debility of the frame, is very likely to prove injurious; they are, at any rate, too ambiguous a remedy to employ in domestic medicine.

Exercise being of great importance in the treatment of rickets, the child should be well tossed in the arms of an athletic nurse; and when she is tired, it should be put to roll and stretch its limbs on a carpet, instead of being rocked to sleep in a cradle, or put to sit and amuse itself with toys. A lively nurse, that will do her duty out of the sight of the parents as well as in it, will be of much greater service in establishing the health of a ricketty child than even the most powerful tonic medicines. Nothing strengthens the digestive organs of children more than exercise; and if they have not their due share of it, indigestion and other diseases will be the certain consequences*.

The diet of ricketty children should consist of a proportionate combination of animal and vegetable food, such as broth, chicken, veal, and bread or rice pudding; and the animal and vegetable jellies, as those of arrow root, sago, and hartshorn shavings, as directed page 99, and the beverage chiefly pure water. A teacupful of good fresh milk, with a tablespoonful of lime-water, given two or three times a day, is very beneficial in this complaint.

* It is worthy of notice, that in manufacturing towns, where mothers do not allow themselves time to exercise their children, ricketty complaints are most prevalent.

Malt liquor, wines of all sorts, vinegar, tea, and unripe fruit, should be particularly avoided.

If the child be affected with difficulty of breathing or cough, flannel should be worn next the skin. (See Clothing of Children, page 142.)

OF RUPTURE.

This complaint consists in the protrusion of some part of the contents of the belly, forming a soft compressible tumour, generally occurring in the groin.

CAUSES.—Whatever diminishes the cavity of the belly, by forcing the bowels out of their natural situation, will produce this disorder, such as excessive laughing, sneezing, an impregnated womb, and sudden and violent exertions. The fashion of wearing the waistband of the breeches high up, and tight round the waist, by pressing down the bowels, is one cause of the unusual frequency of ruptures in England of late years.

TREATMENT.—All that can be done towards the cure of a rupture, is to replace the prolapsed parts into the cavity of the belly, and to prevent them from slipping out again: the surgeon has then done his part, and the rest is Nature's. For the purpose of retaining the bowels in their proper situation, after reduction, different bandages are employed, according to their seat. When the rupture is situated in the groin, or scrotum, an instrument, termed a truss, has generally been applied; which, if not properly constructed, by producing an *unequal* pressure over the aperture through

which the bowels protrude, will occasion much mischief, by suffering a small portion of the bowels to get between the pad and the bone, so as to be pinched or contused. To obviate such a serious occurrence, several improvements have lately been made in the common truss, which, from the length and peculiar formation of the pad, and a regulating spring, an equal pressure is produced, and the descent of the bowels effectually prevented. In consequence of the elasticity of the *circular* spring, its use is attended with no inconvenience in walking or riding; and at the same time admitting of a rotatory motion, the pad is not displaced by any position of the body. This truss (termed Self-adjusting Truss) is the invention of Mr. Salmon, of No. 292, in the Strand, London. A principal advantage of this invention is, that it is not encumbered with understraps or bandages, which, during walking, are often productive of much irritation and inconvenience. The following drawings and instructions will explain the mode of application in different cases.—

In all cases, the same truss is applicable to complaints in the right or left groin, and double complaints are secured by a double truss, or by a single truss applicable to either hip at pleasure.

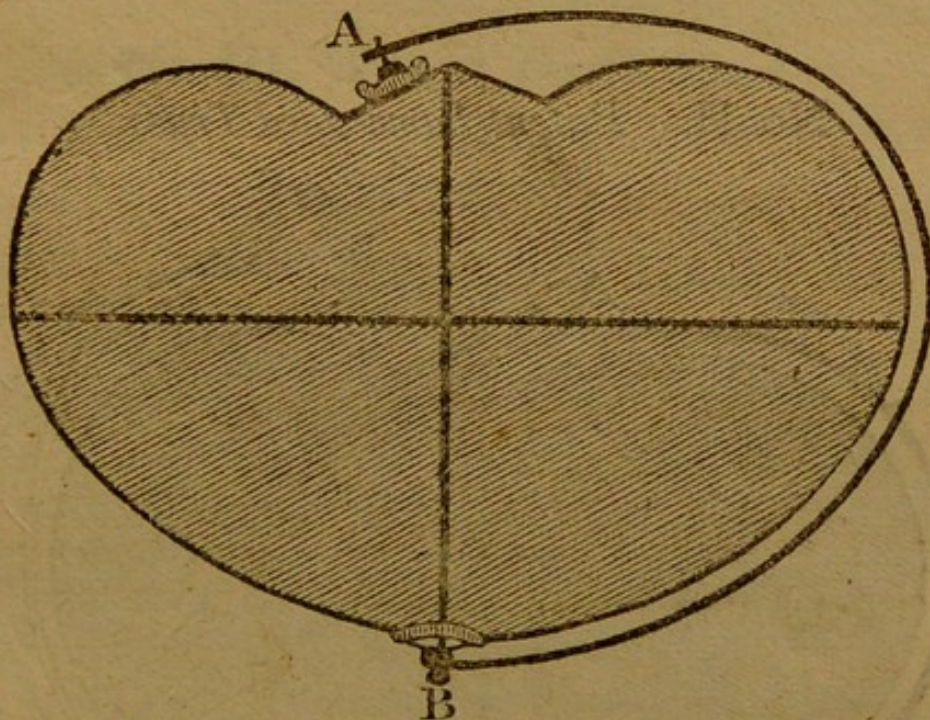
The cases to the springs, the back and front cushions, and their cases, are all made so as readily to take on and off to be repaired or cleaned; and additional sets of these may be had at the manufactory at a small charge.

The size of the springs may be readily increased or

decreased, so as exactly to fit the body, which adjustment should be attended to, in order to secure a pleasant and proper effect.

The force or pressure of the truss is such, that the main spring alone is sufficient for common complaints; but persons with bad ruptures sometimes require additional springs, which are given with each truss. Although this may happen in the first instance, it is in such cases recommended to all persons, that as soon as they do properly keep up the bowels, the pressure should be by degrees lessened.

No. I. *Opposite-sided Truss.*



A, Front Cushion; B, Back Cushion.

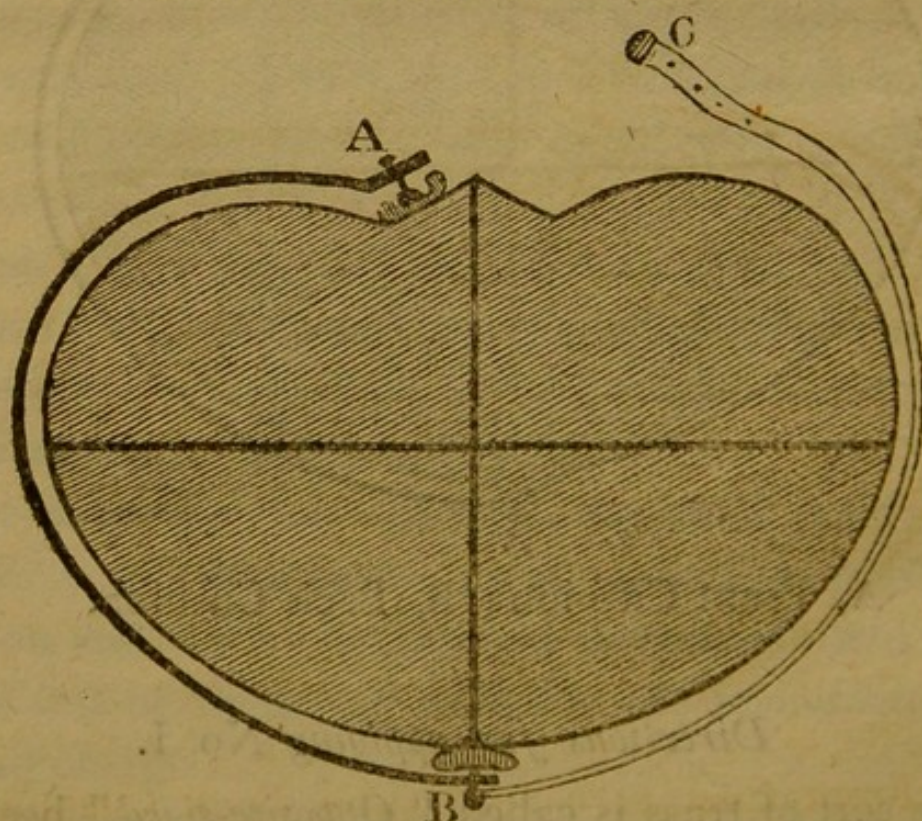
Directions for applying No. I.

This sort of truss is called "*Opposite-sided*," because the spring is (contrary to the common construction of

trusses) made to apply on the opposite hip to that on which the complaint is situated ; that is to say, if the complaint be in the left groin, then the spring is placed on the right hip, and the front cushion brought across the centre of the body, and placed with its lower edge just coming down to the bone of the pubes, which bone is situate just under the hole from whence the rupture protrudes ; the back cushion should then be situated exactly on the centre of the back. If the complaint be in the right groin, then the same truss will equally apply, but must be placed on the left hip, and continue across the body to the seat of complaint.

This sort of truss has been tried on persons of all ages, from one year and a half old, and is found the most certain and pleasant application.

No. II. *Patent Same-sided Truss.*



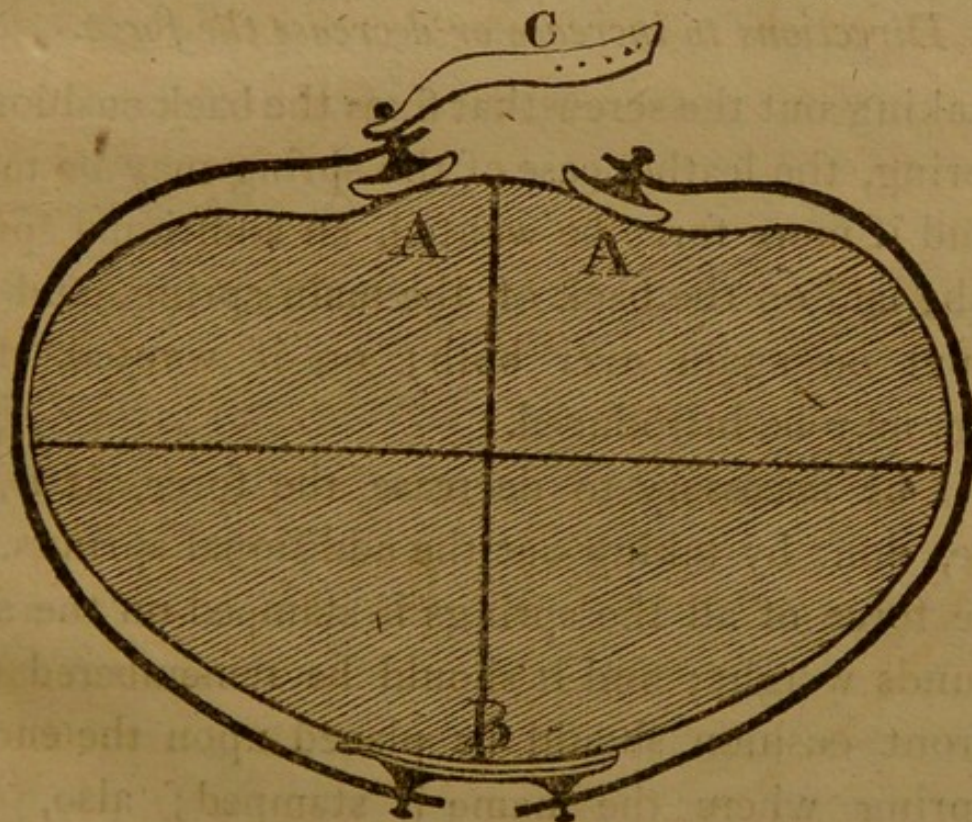
A, Front Cushion ; B, Back Cushion ; C, Strap.

Directions for applying No. II.

This sort of truss is called "*Same-sided*," because the spring is (according to the common construction) made to apply to the same side of the hip on which the complaint is situated.

This sort the patentees do not recommend, but for extraordinarily lusty persons, and particular cases. A slight strap to go round the waist is applied, to prevent misplacement by any accidental external force: but on no account should this strap be made tight.

In applying it, the front cushion should be placed just above the bone of the pubes, and the back cushion about the centre of the back; and whether for the right or left side, the same truss will answer.

No. III. Patent Double Truss.

A, A, Front Cushions; B, Double Back Cushion;
C, Strap.

Directions for applying No. III.

This sort of truss is called "*Double*," because it is two same-sided trusses united, and is for complaints on both sides. It is applied to the seats of the complaint, as No. II. before described, and, when placed, the small strap in front is sometimes used to keep the cushions at due distance from each other.

Umbilical trusses are also made on the same principle.

Directions to increase or decrease the size.

At each end is a screw ; by taking out of which, the cushions may be moved more or less distant. If the screw behind be at the greatest length, then the front screw should also be the same ; so that each end correspond with the other.

Directions to increase or decrease the force.

By taking out the screw that fixes the back cushion to the spring, the leather case of the spring may be taken off, and if more force be wanted, an additional spring must be laid on the back of the main spring, and the case put on again over both ; or, if wanted, three springs may be introduced.

If it be necessary to decrease the force, it is, of course, done by taking out the additional springs.

The force of all the springs is stamped on the steel in pounds weight ; and it should be remembered that the front cushion should be placed upon the end of the spring where the name is stamped ; also, that the number of inches is marked on each truss ; therefore, if a patient measure thirty-two inches in circum-

ference (just above the hips, not from the seat of the complaint), a truss so marked will fit. When the body is in a *horizontal position* (as during bed-time), the use of a truss is not necessary. The bowels should likewise be supported by means of drawers, with a wide waistband.

Costiveness and flatulence should be carefully guarded against, by taking occasionally a tablespoonful of the bitter tincture of rhubarb, and by avoiding much vegetable food and fermented liquors.

When the contents of the tumour cannot be returned, and attended with much pain in the part, or in the bowels, nausea, vomiting, restlessness, fever, and no discharge by stool, a strangulation of the protruded parts may be suspected, in which case surgical aid should be procured without delay, the life of the patient being endangered by approaching inflammation; and if the confined parts be not soon liberated, mortification and death will probably ensue.

OF ST. ANTHONY'S FIRE, OR ERYSIPELAS.

The plethoric and young are most subject to this disease; and after being once afflicted by it, are very liable to future attacks.

SYMPTOMS.—It comes on with cold shiverings, and other symptoms of fever; the hot fit is generally attended with great affection of the head, as drowsiness, confusion, and often delirium. The redness of the skin appears after the first or second, and sometimes the third, day of the fever, generally on the face, gra-

dually spreading over the neck and scalp of the head, which become turgid, and the eye-lids often so swelled as to close the eyes entirely. The redness is attended with considerable heat, and disappears on slight pressure of the finger, but quickly returns on removing it. Soon after, blisters of larger or smaller sizes commonly appear, containing a clear watery fluid, of so ichorous a nature as to inflame the skin over which it is discharged. Sometimes the inflammation first appears on the legs, which are apt to become considerably tumefied. The disorder increases for two or three days, and continues at its height for two more, when it abates, and soon terminates in a falling-off of the diseased scarf skin, in large scales; but sometimes the delirium increases, and inflammation of the brain intervenes, which, about the seventh, ninth, or eleventh day, often ends fatally.

CAUSES.—The predisposing cause of this disease is a preternatural saline state of the blood*. Whatever may increase the excitability of the brain, so as to increase the heat of the body, may, under such circumstances, act as exciting causes.

TREATMENT.—The brain in this disease is always more or less disturbed. When the patient does not complain much of head-ach, the occasional use of the Aperient Mixture, No. 62, with twenty drops of Antimonial Wine, No. 16, at bed-time, in a little *weak* white-wine whey, will be sufficient. The diet should

* An examination of the blood of a person afflicted with St. Anthony's fire, proves it to be surcharged with common salt.

be low, and the drink chiefly barley-water, acidulated with tamarinds. But when the head is much disordered, the feet should be put into warm water for ten or fifteen minutes, and a blister applied to the nape of the neck. If these fail to afford relief, and the person be of a plethoric habit, the loss of eight or ten ounces of blood from the arm will likewise be necessary. If, notwithstanding these remedies, the affection of the brain should increase, and the patient become delirious, the head should be shaved, and a large blister applied to the scalp, and mustard poultices to the feet.

The prepared ammonia, in the dose of five or six grains two or three times a day, dissolved in water, has lately been much recommended by Dr. Peart, as a remedy for erysipelas, and it appears in many instances to have proved beneficial. The decoction of Peruvian bark, with the diluted vitriolic acid, is directed by some eminent practitioners to be given on the commencement of the disease; but the propriety of administering such medicines must depend on the state of the constitution. If there be considerable determination of blood to the head, attended with confusion of mind and delirium, no experienced practitioner would venture on their exhibition. When this disease proves fatal, it is generally by the mischief the brain may sustain; the object of practice is, therefore, on the first attack, to check the velocity of the blood to the head, and to quiet the system, and particularly the mind. The symptoms of sub-irritative fever, termed typhus, which so often attend the latter stage of the disease, or appear a few days before

the dissolution of the patient, are merely the consequences of the affection of the brain.

The diet should be low, and consist principally of vegetable jellies; wine and stimulants should be avoided, unless the debility or sinking state of the patient indicates their use.

Great caution is necessary in the application of external remedies; as, by the imprudent use of repellents, inflammation of the brain has been produced. Fine oatmeal may be sprinkled over the parts, for the purpose of absorbing the discharge; but in case of much heat and dryness, cabbage leaves (stripped of the stems) softened before the fire, or by immersion in boiling water, will answer best.

In people predisposed to erysipelas, from a preternatural saline quality of the blood, inflammatory complaints generally run high. Inflammation or morbid discharges from secreting surfaces prove very obstinate, as catarrh, inflammation of the eye and throat, gleet, and fluor albus. In ladies of such constitution, fluor albus particularly is often attended with a degree of inflammation, which might induce an inexperienced practitioner to suspect it to be of a specific nature. Medical men cannot therefore be too cautious in giving a decided opinion in such cases. For the purpose of correcting the erysipelatous habit, the treatment recommended for indigestion should be adopted, and persisted in for several weeks. In obstinate cases a little mercury, as directed page 379, will be necessary. For breakfast and supper, the Sassafras Cocoa, page 100, will prove an excellent auxiliary.

Notwithstanding the great danger that always attends the use of external applications in this disease, empirics are bold enough to assert, that by the use of their lotions it may be infallibly cured. I was some time since requested to see a young lady, afflicted with this disorder, who, from the use of an advertised remedy, was attacked with inflammation of the brain; and had she continued its application one day longer, it would probably have cost her her life. This *innocent* composition, as it was represented to be, on examination, proved to be a solution of corrosive sublimate of mercury combined with lead!

OF SAINT VITUS'S DANCE.

This is a convulsive disease, principally attacking children from ten to fourteen years of age*. It first shews itself by a lameness, or rather unsteadiness of one of the legs, which the patient draws after him like an idiot. It afterwards affects the hand, on the same side, so that if a glass of liquor be put into it to drink, before the patient can get it to his mouth, he uses a great number of odd gestures, through the hand being drawn different ways by the convulsive action of the muscles, in consequence of which he is not able to carry it in a straight line; and as soon as it has reached

* Dr. Rotheram observes, that he has seen this disease in a robust man of forty-two. This patient, after various ineffectual remedies had been used, was cured by strong electrical shocks, directed through the whole body.

his lips, he often throws it suddenly into his mouth, and drinks it very hastily, as if he only meant to divert the spectators. The will of the patient seems often to yield to these convulsive motions as to a propensity, and thereby they are often increased, while the person affected seems to be pleased with increasing the surprise and amusement which his motions occasion to the by-standers. After it has continued some weeks, the intellectual operations of the brain are weakened, evinced by confusion of mind, and often amounting to idiotism. Females are most subject to this complaint.

CAUSES.—This disease arises from an increased irritability of the nervous system, which is often produced by some irritation in the stomach and intestines; such as worms, and sometimes by violent passions and perturbation of mind. In females, at the period of puberty, it probably arises from the same causes as hysterics.

TREATMENT.—The irritation of the cerebral system (brain and nerves) being generally symptomatic of a disordered state of the digestive organs, or kept up by irritation in the stomach or intestines, it will be proper to commence the cure by a purgative dose of the Basilic Powder, No. 36. After the due operation of which, strengthening medicines, combined with those that are known to allay nervous irritability, should be persevered in, such as the following mixture:—

Take of essential salt of bark, No. 24, one drachm; dissolve in half a pint of water, then add tincture of Russian castor, three drachms; tincture of valerian, six drachms.—Mix. Two tablespoonfuls to be taken three times a day.

Or the following pills:—

Take of extract of rhatany-root, one drachm; flowers of zinc, and Russian castor, in fine powder, of each half a drachm; compound Galbanum pill, one drachm.—Mix, and divide into forty pills; of which three may be taken twice a day.

If the complaint be attended with pain in the head, a blister should be applied to the nape of the neck, and the feet kept warm by the use of flannel socks; and if there be evidently a morbid determination of blood to the head, which is often the case when attended with a suppression of the menses, the extraction of blood from a vein in the arm will also be necessary.

When the symptoms are abated, cold bathing every morning, if it do not alarm the mind, will prove of great advantage; and, with the use of the muriated tincture of steel, in the dose of ten or fifteen drops, in a glass of cold valerian and camomile tea, will probably complete the cure: if the patient have not sufficient resolution to go into the cold-bath, cold water may be applied every morning to the head. The basilic powder should be repeated two or three times a week, till nine or twelve doses have been taken; for if the nervous system be disturbed by the irritation of worms in the stomach or intestines, it will effectually dislodge them; and if the stomach and intestines are in fault, which in ninety-nine instances in a hundred is the case, the frequent exhibitions of such a purgative will probably remove the cause. If this treatment fail of affording relief, the cure should be attempted in the manner directed for epilepsy, of which this disease may be considered a more violent attack.

In many cases electricity has proved of great advantage; but in the majority it has aggravated the

symptoms, by irritating the brain, and increasing the determination of blood to it.

The Electuary of Tin, No. 86, recommended for the tape-worm, has been successfully exhibited at the Hereford Infirmary in many cases of this disease. The good effects of this remedy are attributed to its mechanical operation on the inner coats of the stomach and intestines, occasioning them to throw off redundant slime. With this view I have lately given the granulated tin in many diseases of children in which the stomach and bowels were disordered, with the most decided advantage. The diet should be regulated according to the strength of the patient: if plethoric, a low diet should be observed, and wine and stimulants avoided; on the contrary, if the body be much debilitated, a nutritious diet should be employed; but even in this case, wine and stimulants should be allowed with great caution.

The acetated ceruse is also a very valuable remedy for this disorder, given with a tonic medicine, in the following form:—

Take of acetated ceruse, seven grains; extract of rhatany root, two drachms: dissolve in eight ounces of water, and add tincture of cardamom seeds, six drachms. Two tablespoonfuls to be taken three times a day.

The acetated ceruse is a very powerful medicine, and should in no case be employed internally without the attendance of a practitioner in medicine.

OF SCALD HEAD.

Although this is a local disease, it is evidently communicated by a change of hats at schools, and by the

use of the same comb. The whole of the hairy scalp is subject to it, but, on close inspection, it will appear more virulent at the roots of the hair. The discharge is often so acrimonious as to cause swellings of the lymphatic glands of the neck. It is sometimes dry, and at others moist. Like the itch, it is probably produced by an animalcule.

TREATMENT.—On the *early* appearance of this disease, it will only be necessary to cut the hair short in the places affected, to remove the scabs, and rub a little of the following ointment well over the parts:—

Take of the citrine ointment, three drachms; olive oil, one drachm.—
Mix in a glass mortar.

When the disease has been neglected, and the scalp much affected, the shaving of the head will be requisite; after which it should be well washed with a strong solution of soap in water, till the scales and matter be entirely removed, when the following ointment should be *well* rubbed over the parts every night and morning, by means of a piece of soft leather:—

Take of the citrine ointment, and pitch ointment, of each half an ounce. To be mixed in a glass mortar.

This ointment should be removed every morning, by first rubbing over the scalp some olive oil, and afterwards by washing it with soap and water, by means of a piece of flannel. If the disease appear to be more obstinate in one part than another, the hair of the part should be eradicated by degrees. During the use of this ointment, a cap made of a pig's bladder should be worn. When the virulence of the disease is abated, the cure may be completed with the citrine

ointment and olive oil, as above directed; and even after it has entirely disappeared, it will be necessary to wash the scalp once or twice a day with a strong solution of soap, or a decoction of tobacco, till the hairs begin to grow on the parts, which may be considered a proof of the disease being destroyed. If fresh scales should continue to form, the application of ink will complete the cure.

When this disorder occurs in a scrofulous habit, it is generally extremely difficult to cure. In such cases the treatment recommended for scrofula will also be necessary. The internal use of mercury will not, however, be requisite, if the citrine ointment be well rubbed over the scalp.

Although this disease is confined to the scalp, I conceive it will, in all cases, be proper to attend to the general health, and particularly to the digestive organs of the patient; and to guard against acidity in the stomach, by the use of the Prepared Natron, as directed No. 60. If the stomach be disordered, an emetic of Ipecacuan Powder, No. 23, and a full dose of the Basilic Powder, No. 36, will be necessary; and afterwards thirty or forty drops of the tincture of columbo may be taken in the solution of Prepared Natron, as directed No. 60; but if the patient be of a full habit of body, the solution of Epsom salt, or the sulphureous saline-water, as directed page 9, will answer best.

The diet should consist of a proper proportion of vegetable and animal food, and pure or distilled water used for the common beverage.

OF SCARLET FEVER.

SYMPTOMS.—This fever begins with chilliness and shiverings; soon after which the whole skin becomes covered with partial inflammations, *more numerous, larger, and redder*, than those of the measles. In two or three days they disappear, succeeded by scalings of the scarf skin, like bran dispersed over the body, which fall off and appear again two or three times successively.

CAUSES.—Some writers suppose that this fever is occasioned by a peculiar contagion, and that it is infectious. It appears to be produced by some atmospheric cause, and is therefore generally epidemic.

TREATMENT.—This disease is generally so mild as to require nothing more than to observe a low diet, and to avoid a cold air and cold drink. If the body be costive, a dose of the Aperient Mixture, No. 62, or Powdered Jalap, No. 27, may be taken and repeated occasionally; and if the feverish symptoms run high, the Saline Mixture, No. 78, may likewise be taken every two or three hours, in the dose of a teacupful. Barley-water, acidulated with tamarinds, or lemon juice, affords the best beverage. If attended with much pain in the head, or a sense of heaviness or stupor, a blister should be applied to the nape of the neck, and the feet immersed in warm water.

In this fever, as in erysipelas, if the brain be much affected, a degree of general sub-irritation ensues, attended with great debility of the system, when the treatment recommended for typhus fever will be necessary. (See also Malignant Sore Throat.)

OF SCIATICA.

When irritation occurs in the nerves of the hip-joint, or the great nerve of the thigh, it is thus termed. Like rheumatism in other parts of the body, it is both super-irritative and sub-irritative. (See Rheumatism.)

OF SCURVY.

The disease of the skin, termed land-scurvy, is noticed under the head of "*Eruptions of the Skin.*" In true scurvy there is a general disposition in the body to decomposition or putrefaction, and which actually takes place in different parts. It does not appear to be produced by contagion, and more frequently occurs in cold than in warm climates. Sailors, and such as are shut up in besieged places, are generally its victims. It is characterised by extreme diminution of vitality, such as a pale and bloated complexion, spongy gums, livid spots on the skin, offensive breath, œdematous swelling of the legs, foul ulcers, fetid urine, and extremely offensive stools; the pulse is small, frequent, and, towards the last, intermits. This disease, in its last stage, exhibits a most lamentable and wretched appearance; with considerable aggravation of the above symptoms, the joints become swelled and stiff, the tendons of the legs rigid and contracted, general emaciation, bleeding at different parts of the body, the stools extremely fetid; at length, violent purging or dysentery comes on, and soon terminates the tragic scene.

CAUSES.—This disease arises, in the first instance, from the want of fresh provisions, and a due quantity of vegetables; probably assisted by the prevalency of cold and moisture, and such other causes as depress the nervous energy, as indolence, confinement, neglect of cleanliness, much labour and fatigue, sadness, despondency, &c. A preternatural saline state of the fluids is assigned by Dr. Cullen as its proximate cause. It seems to depend more on a deficiency of nourishment than on a vitiated state of the fluids. The reason that salted meat is so productive of scurvy, is, because it is drained of its nutritious juices, which run off in brine, its fibres being at the same time hardened and rendered more difficult of digestion.

TREATMENT.—A diet of fresh vegetables, and a beverage strongly impregnated with the juice of lemons, oranges, and the sub-acid fruits, are more efficacious in the cure of this disease than the most powerful antiscorbutic medicines. The essences of malt and spruce have likewise been found of great service, probably from the quantity of fixed air they contain. When lemon or orange juice cannot be obtained, nitre dissolved in vinegar, in the proportion of an ounce of the former to a quart of the latter, has been found to afford the best substitute: water acidulated with the nitric acid is perhaps not less efficacious: from one to two ounces or more of the former may be given three or four times in the course of the day; and of the latter a quantity containing about fifteen or twenty drops of the nitric acid may be taken every five or six hours. The nitriolic acid, the Peruvian bark, and the red sulphate

of iron, are likewise very valuable remedies in the far-advanced stages of this disease.

The room or cabin of the patient should be fumigated two or three times with the nitrous vapours, as directed page 102, which, with cleanliness, will contribute much towards the recovery of the patient.

The fæces and urine should be thrown away as soon after they are evacuated as possible, and the vessel rinsed out with vinegar.

The bleeding should be suppressed by the application of styptics; such as a solution of alum, with dossels of lint.

In case of ulceration, the lemon juice, with tincture of myrrh, or vinegar and myrrh, will prove the most efficacious application.

The *true* sea-scurvy, being attended with diminished energy of the brain, exhibits, in a remarkable degree, the great influence of the passions of the mind. Depression of spirits, bordering on despondency, is its constant attendant, the counteracting of which, experience has proved to be of the utmost consequence to the recovery of the patient. In Lord Anson's voyage, it was noticed, in reiterated experience of this malady, "that whatever discouraged the seamen, or at any time damped their hopes, never failed to increase the distemper; for it usually killed those who were in the last stages of it, and confined those to their hammocks who were before capable of some kind of duty; so that (as the writer judiciously observes) it seemed as though alacrity of mind and sanguine thoughts were no contemptible preservatives from its fatal malignity." And

in Mr. Ive's Journal, a remarkable instance of the good effects of an opposite state of mind is given: "Upon the British fleet coming into the Bay of Hieres (Feb. 1744), the men understood they were soon to engage the enemy's fleet. There appeared, not only in the healthy, but also in the sick, the highest marks of satisfaction and pleasure; and the latter mended surprisingly daily, insomuch that, on the 11th of February, the day they engaged the combined fleets of France and Spain, there were not above four or five men but what were at their fighting quarters." The siege of Breda, in the year 1625, affords an example of the influence of the mind in this disease still more striking: "That city, from a long siege, suffered all the miseries that fatigue, bad provisions, and distress of mind, could bring on its inhabitants. Among other misfortunes, the scurvy made its appearance, and carried off great numbers. This, added to the other calamities, induced the garrison to incline towards a surrender of the place; when the Prince of Orange, anxious to prevent its loss, and unable to relieve the garrison, contrived, however, to introduce letters, addressed to the men, promising them the most speedy assistance. These were accompanied with medicines against the scurvy, said to be of great price, but of still greater efficacy; many more were to be sent to them. The effects of this deceit were truly astonishing: three small phials of medicine were given to each physician. It was publicly given out that three or four drops were sufficient to impart a healing virtue to a gallon of liquor. They now displayed their wonder-working balsam; nor even were the commanders let into the secret of this cheat on the soldiers. They

flocked in crowds about the dispensers of it, every one soliciting that part might be reserved for his use. Cheerfulness again appeared in every countenance, and an universal confidence prevailed in the sovereign virtues of the remedy. The effect of this delusion was really astonishing; for many were quickly and perfectly recovered; such as had not moved their limbs for a month before, were seen walking in the streets, with their limbs sound, straight, and whole. They boasted of the cure by the Prince's remedy, the motion of their joints being restored by simple friction with oil. Many who had declared they had been rendered worse by all former remedies, recovered in a few days, to their inexpressible joy, and the no less general surprise, by their taking what we affirmed to be their gracious Prince's cure." This curious relation (adds Dr. Lind) would perhaps hardly gain credit, were it not in every respect consonant to the most accurate observations, and the best-attested descriptions of that disease. It is given us by an eye-witness, who, an author of great candour informs us, wrote down every day the state of his patients, and seems to be more surprised with their unexpected recovery than he probably would have been had he been better acquainted with the nature of the malady. An important lesson in physic is hence to be learned, by the wonderful and powerful influence of the passions of the mind on the state and disorders of the body. This is too often overlooked in the cure of disorders, many of which are sometimes attempted by the sole mechanical operation of drugs, without calling in to our assistance the strong powers of the imagination or the concurring influence of the soul. Hence it is,

The same remedy will not always produce the same effect even in the same person; and that common remedies often prove wonderfully successful in the hands of bold quacks, but do not answer the purpose in a timorous and distrustful patient!

OF SMALL-POX.

This disease is highly infectious, and the constitution that has been once properly under its influence, is thereby rendered secure against its future attack. When the pustules are separate from each other, it is termed *distinct*; and when they run together, it is denominated *confluent*.

SYMPTOMS.—Like other eruptive fevers, it comes on with shiverings, pain in the head, nausea, and the ordinary symptoms of fever; and sometimes, a few hours before the eruption, children are affected with convulsions. The eruption appears about the *fourth* day of the fever, first on the face, and afterwards on the neck, breast, and body. The pustules gradually enlarge and proceed to maturation, which is completed about the *eleventh* day after their first appearance, when the attendant inflammation and swelling manifestly abate, the eruption beginning to dry and scale off, and about the *fifteenth* day entirely disappears. The confluent sort is generally attended with more violent symptoms than the distinct, but observes the same period of termination, &c.

CAUSE.—It is produced by a *specific* contagion.

TREATMENT.—The small-pox, like the measles, al-

ways runs its determined course; all, therefore, that art can do, is to lessen the attendant fever, and to combat unfavourable symptoms. The great advantage of inoculation is, that precautions may be used, which cannot be employed in due time when received naturally; besides, by its being introduced into the constitution, when it is not much predisposed to take it, the crop will of course be less. To avoid a full crop of the eruption, it is necessary to lessen the fever by a dose of the Basilic Powder, No. 36, which should be repeated every third day till the eruption appear, provided the subject be not very weakly; or if the infection have been received *naturally*, fifteen drops of antimonial wine, in a dose of the Saline Mixture, No. 78, may be given every six or eight hours, till the feverish symptoms are abated: a low and cool diet will be proper. Barley-water, acidulated with tamarinds, may be taken frequently. If the feverish symptoms run high after the eruption has appeared, the basilic powder and antimonial wine should be repeated, and the saline mixture taken oftener. When the pustules begin to mature, the patient may be permitted gradually to take to his usual diet; and if the crop be considerable, and the strength of the patient much reduced, provided he be free from fever, a little Port wine, diluted with water, may likewise be allowed after dinner. When the brain has suffered during the fever, morbid irritability of the nervous system sometimes comes on, with general debility, attended with petechiæ, commonly termed purples, when it will require the same treatment recommended for typhus or sub-irritative fever.

The matter for inoculation should be taken about the

seventh day of the eruption, on a lancet or needle, with which the skin of the person need be only slightly scratched. (See Cow-pox.)

OF SPITTING OF BLOOD.

It is often difficult to determine, in cases of spitting of blood, whether it proceeds from the internal surface of the mouth, from the fauces, from the adjoining cavities of the nose, from the stomach, or from the lungs; it is, however, of importance to ascertain its source, which in most cases may be done, by attending to the following observations: when the blood proceeds from some part of the internal surface of the mouth itself, it comes out *without* any *hawking* or *coughing*; and generally, upon inspection of the mouth, the particular source of it becomes evident. When it proceeds from the fauces, or the adjoining cavities of the nose, it may be brought out by hawking, and sometimes by coughing, as from the lungs, so that in this way a doubt may arise concerning its *real* source. A bleeding from the fauces is, however, *more rare* than one from the lungs, and seldom happens but to persons who have been *before* liable, either to bleeding at the nose, or to some evident cause of erosion; and in most cases, by looking into the fauces, the blood may be perceived coming from thence.

When the blood is of a *florid* and *frothy* appearance, and brought up with more or less *coughing*, *preceded* by *rigors* and other feverish symptoms, with *anxiety*, and a sense of *tightness across the chest*, there can be no doubt but that its source is from the *lungs*. When vomiting accompanies the throwing out of blood from

the mouth, as vomiting and coughing often mutually excite each other, so they may be frequently joined, and render it doubtful whether the blood thrown out proceeds from the lungs or the stomach; we may, however, generally decide, by considering that blood does not so frequently proceed from the lungs; that the blood proceeding from the lungs is usually of a *florid* colour, and mixed with a little *frothy mucus only*; while the blood from the *stomach* is commonly of a *darker colour*, more grumous, and mixed with the *contents of the stomach*; that the coughing or vomiting, accordingly as the one or the other *first* arises in the cases in which they are afterwards joined, may sometimes point out the source of the blood; and lastly, that much may be learned from the circumstances and symptoms which have *preceded* the discharge.

When the source is from the stomach, it is termed *vomiting of blood*, which is considered in its alphabetical order. When the origin is in the mouth or fauces, it is of little consequence, and may be checked by the use of the Astringent Gargle, No. 94, and the loss of blood from the arm, if attended with a plethoric state of the system. If the cause be erosion or ulceration, or if it occur during fever, the treatment must depend on the nature of such fever or ulceration.

What is strictly meant by *spitting* of blood, is when the blood is discharged from a ruptured vessel in the lungs, which is technically termed *Hæmoptoe*. It occurs generally from the age of sixteen to thirty-five, and chiefly arises from a faulty proportion between the capacity of the vessels of the lungs and those of the rest of the body; accordingly it is often an hereditary

disease, which implies a peculiar and faulty conformation. It likewise happens, especially to persons who discover the *smallest capacity* of the lungs, by the *narrowness* of the *chest*, and by the prominence of their shoulders, which last is a mark of their having been long liable to a difficult respiration. It happens likewise to persons of a slender delicate make, of which a long neck is a sign; to persons of much sensibility and irritability, and therefore of quick parts, whose bodies are generally of a delicate texture. It likewise frequently arises from suppression of the menstrual discharge, from plethora, and violent exercise of the lungs.

The most frequent, if not only, cause of the rupture of a blood-vessel in the lungs, is, the deposition of scrofulous matter in the substance of the lungs, forming what are termed tubercles. The blood-vessels being partially distended by the pressure of tubercles, are easily ruptured by cough, or bodily exertion. The lungs of people who have died of the excessive loss of blood, or of the consequence of the ruptured vessel, viz. pulmonary consumption, I have always found loaded with tubercles. (See Consumption, page 242.)

TREATMENT.—The discharge of blood may be moderated by avoiding whatever has a tendency to irritate the body and increase the action of the heart; a low diet should therefore be strictly observed, and external heat and bodily exercise avoided; the air of the room should likewise be kept cool, and the drink (which should consist chiefly of barley-water, acidulated with lemon-juice) taken cold, and the patient not suffered to exert his voice. After the operation of a little gentle aperient medicine, as lenitive electuary, or an infusion

of senna, with a little cream of tartar dissolved in it, two tablespoonfuls of the following mixture may be taken, to diminish the excitability of the system and quiet the circulation:—

Take of almond emulsion, six ounces; acetated ceruse, five grains; distilled vinegar, two drachms; syrup of white poppies, half an ounce.—Mix.

In case of much cough, five drops of laudanum may be added to each dose of the mixture; but this medicine must not be resorted to unless it be violent.

If the pulse be not much reduced by the discharge, a few ounces of blood should be taken from the arm, and a blister applied over the breast bone, especially if pain be experienced in the chest, either on coughing or breathing.

Emetics have been given in this disease with advantage by Dr. Robinson, and still more lately by Dr. Stoll, of Vienna, who observes, that in discharges of blood from the lungs, ipecacuan powder sometimes acts like a charm, seeming to close the open vessel sooner and more effectually than any other remedy*. The good effects of this remedy are probably the consequence of the compression the lungs undergo during vomiting, from the action of the diaphragm and expiratory muscles.

When the discharge has ceased, its recurrence should be prevented by the use of cooling astringent medicines, as a wineglassful of the infusion of red rose leaves,

* A Dr. Stone, in a treatise on indigestion, disapproves of the use of emetics, because *they may* occasion a rupture of a blood-vessel of the lungs!!

with six drops of the diluted vitriolic acid, three or four times a day; the loss of blood from the arm on experiencing any pain in the chest or difficulty of breathing; a seton in the side, or perpetual blister between the shoulders, or over the breast bone; flannel next the skin; avoiding much exercise, particularly of the lungs; the occasional use of aperient medicines to obviate costiveness; and a spare diet, consisting principally of animal jellies. (See Pulmonary Consumption.)

OF STRANGURY.

When this complaint succeeds the application of blisters, the free use of diluting liquids, as linseed tea or barley-water, with a few grains of nitre powder, and a little gum arabic, will generally afford relief in the course of a few hours. When it is occasioned by the pressure of an impregnated womb, costiveness should be avoided by small doses of castor oil, and an horizontal position observed as much as possible. When attendant on the stone or gravel, it may be relieved by the means already recommended for those complaints.

SWEATING, PROFUSE.

Excessive perspiration attendant on inflammatory fevers or internal inflammation, as pleurisy, &c. should always be considered *salutary*. If it be evidently the consequence of debility or relaxation of the system, the Diluted Vitriolic Acid, as directed No. 18, will prove the best remedy.

In all cases of perspiration, it is of great importance to determine whether it be a *disease* or an *effort* of *nature* to relieve the system of plethora, which often requires an experienced practitioner to decide; even the colliquative sweats attendant on pulmonary consumption or hectic fever are to be suppressed with the greatest caution.

OF TENESMUS.

SYMPTOMS.—This disease consists in a constant irritation at the fundament, with an inclination to go to stool, when little or nothing can be discharged, except slime or mucus, which is sometimes streaked with blood.

CAUSES.—It is often attendant on stone in the bladder, and frequently occasioned by inflammation of the neck of the bladder, from gravel, or the use of astringent and stimulating injections. It is likewise frequently produced by small worms in the rectum, acrid humours, the pressure of an impregnated womb, piles, &c.

TREATMENT.—When it is produced by the irritation of a stone in the bladder, it will require the same treatment as already directed for stone.

When it is occasioned by inflammation of the neck of the bladder (from whatever cause the inflammation may arise), the application of leeches, the use of castor oil, as directed No. 3, and the warm-bath, will be necessary, and general bleeding, if the subject be of a plethoric habit.

If worms be the cause, the treatment recommended for their expulsion will be necessary ; and when an attendant on pregnancy, small doses of Rhubarb, No. 25, or Lenitive Electuary, No. 47, and lying on the right or left side when in bed, instead of the back, will generally afford relief.

In all cases *aloetic* medicines are highly improper ; the frequent use of which having, from their stimulating effects on the rectum, often produced the disease.

OF TETANY.

This disease is a spasmodic affection, and occurs chiefly in warm climates.

SYMPTOMS.—It is characterised by an involuntary and continued contraction of all or several of the muscles of the body, receiving various appellations according to the situation of the parts attacked. When the muscles of the jaw are principally affected, it is named *Trismus* or *Locked Jaw*. It commences with a stiffness in the back of the neck, which gradually increases to a pain, and renders the affected part entirely immovable. It extends to the root of the tongue, affects the part concerned in swallowing, then attacks the front of the chest, and lastly seizes the back. Spasms at length arise in the stiffened parts, occasioning such excruciating pain, that death is often wished for, both by the patient and his attendants. A remission of the spasms often takes place every ten or fifteen minutes, but is renewed with aggravated torture on the slightest causes, even by the least motion of the person, or the

touch of an attendant. The teeth become entirely closed, so that nothing can be introduced into the mouth; and towards its termination, the voluntary muscles of the body are affected, producing the most hideous deformity.

No permanent fever attends this disease, though some temporary symptoms of it appear during the violence of the spasms. No habit of body is exempt from it, but the robust and strong are most frequently its victims.

CAUSES.—Cold and moisture, particularly sudden vicissitudes or irritation of the nerves in consequence of local injury, as punctures, cuts, &c. are noticed by medical authors as causes of this disease. The principal seat of it is the brain.

TREATMENT.—When the disease arises from a wounded nerve, the most important step toward the cure is, to cut off the communication of the part with the brain, either by dividing the nerve in its course, or by destroying, to a certain extent, the affected part. If the wound be on a finger or a toe, it should be amputated.

Opium is the only remedy capable of allaying the morbid irritation that exists in this disease: sixty drops of laudanum should be given in a little wine every three or four hours, and the dose increased ten or twenty drops each time, till the violence of the spasms abates; it should then be continued at that dose for some time longer, the disease being very liable to recur. This medicine, even in large doses, does not operate in these cases as in other disorders; for although it produce some remission of the spasm and

pain, it scarcely ever induces sleep, or occasions that stupor, intoxication, or delirium, which it generally does in other complaints. Opium has been given, and in a few instances with success, to the extent of half a drachm, which is equal to about three quarters of an ounce of laudanum.

If the muscles of the jaw, and those concerned in swallowing, be so much affected that this remedy cannot be got into the stomach, it must be administered rectlysterwise, by dissolving about two scruples or a drachm of opium in half a pint of gruel, which should be injected every three or four hours. If the jaws be so closed by the spasm of the muscles, that they cannot be opened during any period of the day, it will be advisable to remove a portion of the front teeth by a small saw or trephine, for it is certainly of great consequence to get the remedy, as well as nourishment, into the stomach, which may in general be afterwards done by means of a flexible tube; if, however, the muscles of deglutition and those of the gullet be affected, the body should be immersed in warm milk two or three times a day, from which a sufficient quantity will be absorbed to support life; and I think if the milk were strongly impregnated with opium, it might also tend to abate the spasms.

Mercury has been much recommended as a remedy for this disease; and as it does not interfere with the exhibition of opium, a drachm of the strong mercurial ointment may be rubbed on the inside of the thigh twice a day, till the whole has entered the system; and in order to accelerate its operation on the constitution, the body may be placed in mercurial fumes,

as directed by Lalouette, and lately recommended by Mr. Abernethy, in order more speedily to saturate the system with mercury, which in so formidable a disease is certainly of the utmost importance. For this purpose the patient should be inclosed, *naked*, in a kind of box resembling a sedan, having above an opening which encircles the neck, and at the bottom another for the reception of a grate and heated iron; the mercurial powder* is to be thrown on the iron, and after the fumes are entirely dispersed over the body, a flannel dress, which has also been fumigated, should be put on †.

Cold bathing is much extolled, and it seems in many instances has succeeded in curing this disease: and as the use of the warm-bath is very doubtful, and in many cases has proved hurtful, the cold-bath should have the preference.

The application of blisters, and loss of blood, have apparently, in some instances, proved serviceable; but in the majority of cases they have had no salutary effect, and in many have appeared to aggravate the symptoms.

This disease being entirely an affection of the nerves, friction by the electrical brush, as directed in cases of

* The grey precipitate of mercury and cinnabar are generally employed for this purpose; but calomel will answer as well.

† Sir Charles Blicke, surgeon to St. Bartholomew's Hospital, recommends stockings and a flannel waistcoat, fumigated with mercury, to be worn next the skin, with the view to produce mercurial effects, both locally and on the constitution, without the fatigue and other unpleasantness of rubbing in the ointment.

rheumatism and gout, is likely to prove of service by exciting a healthy action in the nerves of the part.

The cerebral system being often disturbed by irritation in the stomach or intestines, it will also be advisable to empty the intestinal canal by a strong dose of the cathartic extract and calomel, both by the mouth and clysterwise, which should be frequently repeated. As the exhibition of opium will retard the action of purgative medicines, instead of administering it by the mouth, it might answer as well, and probably better, if the body were immersed in a strong solution of opium in luke-warm water. And as it is in the commencement of this disease that remedies are to be employed with a *probability* of success, medical aid should be procured as early as possible.

OF TIC DOLOREUX.

This disease consists in a painful affection of the nerves of the face; and of all the chronic diseases to which the human frame is subject, is the most distressing. It is fortunately of rare occurrence. Its most frequent seat is the nerves of the cheek just below the orbit of the eye, the end of the nostrils, the upper lip, and the teeth and gums. Sometimes the nerves of the lower jaw are principally affected. From the connection between the branches of the nerves of the face, the pain often extends to the tongue, ear, and over the face.

CAUSES.—It has been attributed by some to a cancerous acrimony; but as cancer has never been

known to occur in people subject to the disease, there can be no foundation for such supposition. It no doubt arises from diseased structure of nerves.

TREATMENT.—The external application of anodyne and stimulating liniments, blisters behind the ears, bleeding by leeches, mercurial inunction, and electricity, have, in some instances, been found to palliate the sufferings of the patient; but in others they have not even produced the slightest mitigation: nor has the internal use of the usual nervous medicines, as valerian, camphire, opium, and Peruvian bark, been productive of great success. Shaving the head and washing it with cold water twice a day, and placing the head for two or three minutes under a stream of cold water three or four times a week, I have lately known to succeed in two cases which resisted the usual means.

Several cases of this disease, cured by the long use of hemlock, have been lately published. In the many trials I have known made of it, it failed to prove of the least advantage; and in every instance the dose was gradually increased to the same extent. Like many other diseases, it will terminate spontaneously, when the medicine the patient happened to be taking at the time obtains the credit of the cure.

The extract of the henbane, in the dose of three grains, three times a day, has been administered in the form of pill, in some cases with success.

Dr. Haighton, finding that a temporary relief was obtained by compressing the suborbitary nerve, was induced to divide the nerve; and in several instances this operation has succeeded in his, and also the practice of

others.—Mr. André, a surgeon at Versailles, had before cured this complaint by burning the nerve with caustic, and by excision.—Dr. Haighton has given a drawing, in the Medical Researches for 1798, which shews the exit of the suborbitary nerve and its branches, accompanied with precise directions where the incision should be made. The great severity and obstinacy of the disease can only justify the operation.

People subject to increased irritation of the nerves of the face, should pay particular attention to the state of the digestive organs, for nothing tends more to keep up nervous irritability than indigestion. (See Indigestion.) The use of a double flannel night-cap, with flaps to pass over the cheeks, &c. covering the chin and neck, has been found generally beneficial.

This complaint being evidently confined to the nerve, the use of the electrical brush, by exciting a proper action of the nerve, appears to me very likely to prove a powerful auxiliary.

OF THE TOOTH-ACH.

This well-known disease generally arises from the exposure of the branches of the nerve of the tooth to cold air or acrid matter, in consequence of caries. It is, however, frequently occasioned by inflammation of the membrane lining the socket, in which case the tooth is a little elevated, seldom carious, very painful to the touch, and attended with a throbbing pain, which often extends to the neighbouring teeth. This latter kind generally terminates in the formation of matter, commonly termed a gum-boil.

When the tooth is carious, its extraction may in some instances be advisable, which, when properly managed, is attended with considerably less pain than a severe paroxysm of the tooth-ach.

When the decay of the tooth appears to be a *constitutional* disease, its removal is not in all cases to be advised, as the same diseased action will, in that case, very probably go on in another tooth. It is a prevailing opinion with surgeons and dentists, that one bad tooth will contaminate the one next to it; in this instance, I am well persuaded that its continuance in the jaw will be the means of preserving the others sound.

When it is *inflammatory*, in which case the tooth is generally sound, the cure should be attempted by extracting blood from the gum by leeches or scarification, which, with the use of an aperient medicine, and the Antimonial Febrifuge Powder, as directed No. 37, will generally succeed; if, however, it should prove obstinate, a blister may be applied behind the ear, and the scarification or application of leeches repeated. The angustura bark powder, in the dose of fifteen grains, taken every four hours in a little water, is much recommended as a remedy for tooth-ach. When it is entirely nervous, or arises from a disordered state of the stomach, I have known this medicine to succeed in curing it in a few hours.

The violence of pain may in all cases be mitigated by the application of ether and laudanum, by means of lint. The mouth should be previously rinsed out with warm water, to remove any acrid matter that may be lodged in the cavity of the tooth. A pill of camphor and opium, introduced into the hollow of the tooth, is a popular remedy; as are also the oils of cloves, thyme,

and pellitory of Spain. The exclusion of the atmospheric air, by filling the cavity with a mixture of gum mastic and white wax, or a little lint, will not only prevent the recurrence of tooth-ach, but often suspend the progress of caries.

Dr. Handel, of Mentz, recommends the following pill as a very powerful sedative in tooth-ach, when occasioned by corrupted or rotten teeth; upon the application of which, the doctor states, the excruciating pain almost instantly ceases:—

Take of opium, half a drachm; extract of deadly nightshade and camphor, of each six grains; oil of henbane, one drachm; cajeput oil and tincture of cantharides, of each eight drops.—To be formed into a mass, and a little to be introduced into the decayed tooth, either in the form of pill or on lint.

The effect of fear on an acute attack of the tooth-ach is remarkable; the sight of the instrument for extracting the tooth often giving perfect relief, even when the pain has arisen from a carious tooth.

Of all animals, man is the most subject to disease of the teeth; and it is strange that a decay of this very useful part of the body should take place in young people, apparently in a perfect state of health. The gums, by the firmness of their texture, tend to support the teeth in their sockets; and, being also abundantly supplied with blood-vessels, the teeth, and particularly their external coats, termed enamel, derive their nourishment from them. Hence it must appear clear, that on the healthy state of the gums depends the health of the teeth. Indeed, in all cases of caries of a tooth, we uniformly find the surrounding gum either diseased, abraded, or detached from the teeth, by the use of some per-

nicious tooth-powder, or hard brushes. The matter that collects on the teeth, termed tartar, is evidently a morbid secretion from the gums, in consequence of their spongy structure, or of being separated from the teeth, the latter of which is the most frequent cause. The brush and powder employed for the purpose of removing the matter, both tend to aggravate the evil, by abrading the gum as well as the enamel of the teeth, and by the spreading of the hairs of a brush, the gum is detached from the teeth, and irritated. Hence people who are in the habit of using them are under the necessity of repeating the operation every morning, in order to keep them clean.

The teeth receiving their nourishment from the gums, a diseased state of the gums, or their detachment from the teeth, sufficiently accounts for caries or unhealthy appearance of the teeth. I therefore advise people to pay more attention to the state of the gums; and instead of cleaning the teeth with powder and a hard brush, to wash the gum gently, internally as well as externally, every morning, or three times a week, with equal parts of tincture of rhatany-root and water, by means of a piece of sponge fastened to an ivory handle. This, by constringing and strengthening the gum, will not only render the teeth more firm in their sockets, but effectually preserve them from caries and tooth-ach, and prevent the accumulation of tartar. The teeth may also be gently rubbed with the same sponge and diluted tincture of rhatany, with the surface covered with the charcoal of the areca nut. A hair brush should not be employed but when the tartar, in consequence of neglect, adheres too firmly to the teeth to be removed by the

ponge. When a hair brush is employed, care should be taken that the gum be not irritated by it. (See Prepared Charcoal, page 100.)

Such as follow these directions will have no occasion to employ a dentist. Those that are in the habit of using a hair brush, and the mineral tooth powders of dentists, and stimulating washes of tincture of myrrh, &c. have the edges of their gums tumefied and tender; while the gums of those who do not use them, and who have the soundest teeth, are nearly level with the surface of the teeth.

Ricketty and scrofulous children are very subject to caries of the teeth. In those cases topical management will be of little avail, unless the state of the constitution be corrected. (See Rickets and Scrofula.)

Nothing is more injurious to the enamel of the teeth than sugar or sweet-meats, particularly in ricketty or scrofulous subjects.

Under the head of Prepared Charcoal, page 100, some further observations on tooth-powders, and explicit directions for their use, are given.

People subject to irritation of the nerves of the teeth and jaws should pay particular attention to the state of the digestive organs (see Indigestion), and keep the head warm during the night, by means of the flannel cap recommended for the *tic douloureux*, page 495.

OF TYPHUS, OR PUTRID FEVER.

This disease is likewise named *malignant*, *camp*, *gaol*, *pestilential*, and, when attended with livid spots, *petechial* or *spotted* fever. It occurs most frequently in au-

tumn and the end of summer, when the days are hot and the nights cold and chilly.

SYMPTOMS.—It commences with pain in the head, vomiting, slight shiverings, intense and permanent heat, great thirst, irregular pulse (being sometimes tense and hard, and at others quick), but small; while the arteries of the temples and neck often appear to beat with increased force, with flushing of the face, redness of the eyes, denoting a considerable determination of the blood to the head. An increase of the fever is observable every evening; and in a few days the patient becomes delirious, the tongue dry, and of a blackish or a livid appearance, attended with great prostration of strength, and an offensive breath. The delirium becomes more constant, and at length changes to a stupor; an eruption of livid or purple spots sometimes appears: the stools at this period are blackish, which, as well as the urine, emit a disagreeable odour, and sometimes are discharged involuntarily. There is also great anxiety about the heart, and great inclination to sigh, sometimes attended with a discharge of blood from the nose, gums, intestines, or with the urine. A copious and obstinate purging, cold clammy perspirations, and hiccup, precede its fatal termination.

CAUSES.—This fever does not appear to be infectious; it is sometimes epidemic, from some atmospheric or terrestrial* cause. The characteristic symptoms of the

* It is probably often the consequence of some diseased state of the part of the earth on which it occurs; for putrid fevers, attributed to contagion, make an equally rapid progress where guards have been placed, and high walls have been built, as in Russia, &c. to prevent communication; and some instances have hap-

disease arise from the constitution of the patient, and are not the effect of any specific poison: hence, what will produce inflammatory fever in one constitution will produce typhus in another. The difference between these two fevers is, that in typhus the cerebral system is in a morbid degree of irritation, while in inflammatory fever the sentient power of the brain is very slightly affected. In consequence of the disturbed state of the brain and nerves, a wonderful degree of general debility ensues, attended with a disposition in the fluids and solids to decomposition or putrefaction.

The first symptoms, as the acute pain in the head, the purgid state of the vessels of the eyes, and the increased action of those in the neck and temples, the disordered state of the mind, the deprivation of sleep, and affection of the whole nervous system, indicate a disordered state of the brain, which is confirmed by the examination of those who have died of this fever.

TREATMENT.—This disease, when once established, generally runs its course, in defiance of medicine, and whether it terminates fatally or otherwise will in great measure depend on the natural constitution of the patient; hence it is of great importance to check the progress in its onset: for this purpose a dose of Emetic Tartar, No. 35, should be given on its *first attack*,

ceived of a great part of Europe, Asia, Africa, and America, suffering from similar fevers nearly at the same time. The partial appearances of pestilential fevers, and the frequent occurrence at the same place, are proofs of some local diseased state of the earth. The French historian, Mezeray, states, that in the kingdom of Cathay, where a very fatal fever raged for some time, the vitality of the vegetables (from the grass to large trees) was destroyed.

which, by evacuating the stomach and bowels, producing an equal distribution of blood over the body, and promoting the different secretions, generally succeeds in abating the symptoms, if it should fail effectually to check it. If the symptoms continue, the head should be shaved, and a blister applied to the scalp, leeches to the temples, and the feet kept warm by frequent immersion in warm water. The saline mixture should be given in a state of effervescence, as recommended under the head of Crystallised Acid of Lemon, No. 22, or a tablespoonful of yeast, twice a day. Fixed air, administered in this manner, affords more relief than any other medicine; and, in several instances, has alone proved an effectual remedy—not by counteracting putrescency, as has been imagined, but by cooling the body, abating thirst, and diminishing the morbid irritability of the system. The room should be spacious, well ventilated, and often fumigated, as directed, page 102. Washing the body with *cold* vinegar, when the skin is hot and dry, and the application of it to the scalp and forehead, by means of folds of linen, have proved very beneficial, probably by conducting from it superabundant heat, and by bracing the body. The application of cold water or ice to the head has been much extolled in this disease; but *cold* vinegar is certainly preferable. The patient may likewise smell a sponge moistened with the Acetic Acid, No. 38, at a short distance from the nostrils; a little of which may likewise be sprinkled over the quilt of the bed, or evaporated in a saucer (over the blaze of a candle), which, in *small* rooms, will supersede the necessity of the more elaborate process of fumigation. The smelling of the volatile salt in this case is very improper,

as it is apt to increase the delirium. Yeast, in the quantity of a tablespoonful every three or four hours, has been administered in this fever with great success by many physicians in the country, who attribute its salutary effects to the fixed air it contains: much of the advantage derived from it probably arises from the peculiar anodyne property of the hop, with which it is strongly impregnated. On account of the brewers in London substituting other bitter productions for the hop, the yeast procured from them has not been found to answer in such cases. The hop is more efficacious in allaying the nervous restlessness attendant on this fever than any other anodyne. The food should be principally weak veal broth, thickened with a little arrow root or oatmeal, and the drink mint tea or barley-water, acidulated with lemon juice.

If, on the fifth or sixth day of the disease, symptoms of debility come on, and the patient be evidently in a sinking state, a more nutritious diet may be allowed, and the strength of the patient supported with Port wine and the Camphorated Bark Mixture, No. 67, page 71. If the brain be not much disturbed, and the fever evidently depends on debility, this treatment will prove very beneficial, and the patient will appear very considerably refreshed by every dose of the medicine.

If purging should come on so as to reduce the strength of the patient, the Cretaceous Mixture, No. 64, page 71, should be administered, and the Anodyne Lavement, No. 96, or the Nutrient Lavement, No. 99, if it continue violent.

The tongue becoming more clean and moist, and the countenance more animated, are very favourable prog-

nostics. The dark foul state of the surface of the tongue often extends throughout the intestinal canal, which being thrown off as the patient recovers, produces purging, which in such cases should be moderated, and not entirely checked. (See Lime-water, page 96.)

When treating on inflammation of the brain, I observed, that this disease was often mistaken for putrid fever, and there noticed a well-marked case of the kind, which was so treated by a country apothecary; the disease, of course, terminated fatally, and I availed myself of the opportunity of examining the state of the brain.

The following case is a proof that inflammation of the brain may be mistaken for typhus. An experienced practitioner was requested to see a patient affected with fever; on his arrival, he found the patient delirious, and labouring apparently under symptoms of debility; and, from its being epidemical in the neighbourhood, he pronounced it typhus fever, and accordingly administered cordial medicines. The symptoms of delirium afterwards increased, and the patient, in a fit of frenzy, divided his wind-pipe with a razor, by which he lost nearly two quarts of blood before surgical assistance could be obtained. The surgeon approximated the edges of the wound with a ligature and proper bandages, and gave his opinion that the loss of blood, under such circumstances, would prove fatal; but, to his great surprise, the patient speedily recovered, and the wound healed on the first intention, so that the patient, in this instance, really cured himself by cutting his throat.

This fever appears sometimes to commence in the

brain, without disturbing the constitution for three or four days; at other times the stomach and bowels are first attacked, and the head is not affected for some days afterwards. If its progress be not checked in the first instance by an emetic, an aperient, and sudorific medicine, the office of the physician is to attend to the indications of nature, and to take care that no injury be done to the patient by officious nurses or friends. Routine physicians often employ, in the first instance, wine and cordials, which, by increasing the irritation of the brain, will destroy that chance of recovery which depends on the natural strength of the constitution *.

For the means of purifying the air of the chamber, see page 102.

* Wine, and even brandy, in cases of extreme debility, may be necessary to keep up the vital powers; but their indiscriminate exhibition has no doubt destroyed the lives of thousands. The fatality of the disease may in some degree be attributed to maltreatment; for the idea prevailing that it is a putrid disease, the first thing, after giving it a name, is to have recourse to the free exhibition of wine and cordial medicines. Even phosphorus, with brandy, was some months ago recommended as a remedy for typhus, and was continued by the advocates for the stimulating plan till they found it killed ninety-nine out of a hundred!! The following cases will throw some light on the important improvements made by the moderns on the treatment of putrid fever:---Two sons of an eminent solicitor were affected at the same time with fever, which was pronounced by a sapient physician to be typhus. Bark and wine were accordingly prescribed. The eldest took every thing that was offered to him, while the youngest obstinately refused to take either wine or medicine, but drank freely of cold water. When wine medicine was forced down his throat, it was soon after vomited up. The one that took the medicine died, and the water-drinker recovered!!

OF VOMITING.

When vomiting is the effect of poisons taken into the stomach, it requires the treatment already recommended for poisons, page 107.

Vomiting is a very common attendant on pregnancy; and the most healthy women, as well as the weak and delicate, are equally subject to it: the symptoms require, however, different treatment in those opposite states. When it is attended with *fulness* of the vessels, and determination of blood to the brain (evinced by pains and giddiness in the head, flushing in the face, and bleeding at the nose), blood-letting, with gentle purgatives, as the Epsom Water, No. 2, taken every morning, and a spare diet, will afford relief; but when it occurs in a delicate woman, and is attended with symptoms of debility, such as languor and profuse perspirations, a nutritious but light diet, with a moderate use of Port wine, will prove most beneficial. Two tablespoonfuls of the following mixture may likewise be taken two or three times a day:—

Take of infusion of roses, seven ounces; Epsom salt, two drachms; compound tincture of cardamom seeds, six drachms.—Mix.

Moderate exercise will, in both cases, be necessary. Emetics should not be administered without the sanction of a skilful practitioner, as their injudicious exhibition may produce abortion. When vomiting arises from *weakness* or *irritability* of the stomach, or acidity, it should be considered as a symptom of indigestion, and as such treated. When the matter thrown up is

bilious, the Neutral Salts, No. 2, and the Diluted Vitriolic Acid, No. 18, will be proper, to which a few drops of laudanum may be added in case of much straining. When vomiting is the consequence of hard drinking, diluents, as tea and coffee, with a dose of Magnesia, No. 1, or Salt of Wormwood, No. 21, will prove the most efficacious. When the cause is not evident, the saline draughts, in a state of effervescence (see No. 22), with the occasional use of small doses of rhubarb and laudanum, may be employed, and an anodyne plaster applied to the pit of the stomach.

Vomiting is often attendant on organic disease of the stomach, schirrosity of the pylorus, or ulceration of the inner coat of the stomach, when the matter brought up is generally very slimy; in such cases, two or three grains of extract of poppies, or one of purified opium, taken twice a day, with linseed-tea and lime-water, will afford relief.

Vomiting is generally a symptomatic affection, when the cure will of course depend on the nature of the primary disease.

Vomiting of children frequently arises from their being over-fed, when the ejected matter is for the most part sour. A little magnesia, or prepared natron in mint-water, will, in such cases, prove beneficial. If the stools be green, or of a clay colour, a gentle emetic dose of ipecacuan powder will be necessary. (See Feeding of Children.)

OF VOMITING OF BLOOD.

When blood is discharged into the stomach, and brought up by vomiting, it is thus termed; and when

it proceeds from the lungs, although its expulsion be assisted by vomiting, it is termed hæmoptoe, or *spitting* of blood. In describing the latter affection, I noticed in what manner the source of the blood thrown out from the mouth might be ascertained. When the blood is brought up without coughing, if of a black and grumous appearance, and mixed with the contents of the stomach, there can be no doubt that it proceeds from the stomach.

CAUSES.—It generally arises from the suppression of accustomed evacuations, as the menses or piles.

TREATMENT.—If the patient be of a plethoric habit of body, the loss of eight or ten ounces of blood from the arm will be necessary; after which, three table-spoonfuls of the following mixture should be taken every four hours:—

Take of red rose leaves, dried, two drachms; infuse in half a pint of boiling water for three hours, then strain, and add diluted vitriolic acid, two drachms; tincture of rhatany root, half an ounce.—Mix.

It will likewise be proper to produce a determination of blood to the skin, by small doses of ipecacuan powder, combined with opium, as two grains of the former with half a grain of the latter, or eight drops of laudanum. With the same view, the feet should be put into warm water for ten minutes. If these means fail to check the bleeding, six or eight grains of alum, in powder, may be added to each dose of the mixture, and a blister applied to the pit of the stomach.

Thin gruel will be sufficient both for food and beverage, which should be taken cold. If it arise from suppression or retention of the menses, after the discharge has ceased for some days, the remedies already recom-

recommended for these complaints should be employed, to produce a proper determination to the womb. (See Green Sickness and Suppression of the Menses.)

When the cause is a suppression of the piles, the occasional use of aloetic purges, as the Compound Colocynthis Pill, No. 46, or a lavement of gruel, with a drachm of soccotrine aloes, and a tablespoonful of salt, will afford relief, by reproducing the piles.

OF THE WATER-BRASH.

This disease is very prevalent in Scotland and Ireland, but rarely occurs in England. It chiefly appears among the lower order of people, and more commonly at middle age, though sometimes old people are subject to it. It affects females oftener than males, and of married women (unless during pregnancy) the barren are most subject to it. It consists in a discharge of clear water by vomiting or eructations, attended with a burning heat about the pit of the stomach. It generally comes on by fits, which are most frequent when the stomach is empty, as in the morning and forenoon. The pain is considerably abated by eructations and vomiting, but it does not entirely terminate for some time.

CAUSES.—This disease arises from morbid irritation of the pancreas, generally produced by the intemperate use of ardent spirits, particularly whiskey. Passions of the mind, and cold applied to the lower extremities, are often exciting causes.

TREATMENT.—The spasms of the stomach may be relieved by laudanum and ether, the dose of which

must be proportioned and repeated according to the violence of the fit; afterwards the use of the Aromatic Tincture of Rhatany Root, or Compound Tincture of Camomile and Ginger, as directed No. 7, avoiding costiveness, by the occasional use of the Cathartic Extract, No. 46, with a generous diet, and abstinence from spirituous or fermented liquors, will effect a cure.

WARTS.

Warts are organised bodies, and probably a kind of parasitical life, like the fungus of a tree. Whatever proves destructive to the life of parasitical animals, will, by frequent application, destroy warts—such as the muriated tincture of steel, or solution of arsenic.

When a wart has a narrow root, it may be easily removed by ligature; but when the basis is broad, it may be destroyed by rubbing the surface every second morning with a little lunar caustic, till it entirely disappear.

The influence of the imagination in destroying warts is very extraordinary, many instances having occurred of their gradually disappearing after the use of a charm, which could operate only on the mind. It has been said, that even when the person had no confidence in the mystic remedy, it has succeeded. The irritation which produces these excrescences may be allayed through the medium of the mind.

OF WATERY HEAD.

This disease is almost peculiar to infants, and chiefly those of a scrofulous or ricketty habit. It rarely occurs after the fourteenth year.

It commences with slight pain in the head, generally across the brow: as the effusion of water increases, the child becomes affected with nausea, sickness, starting in the sleep, screaming, and other disorders of the animal functions, as convulsions, &c. without any apparent cause; at length the brain becomes so compressed as to produce dilatation of the pupils of the eyes, a variable pulse, with evident stupor. It is commonly fatal.

CAUSES.—The effusion of serum in the ventricles of the brain is generally considered to be the consequence of inflammation, but it is more probably the effect of sub-irritation. The capacity of the skull being adapted to the brain, an enlargement of the skull, which takes place in a ricketty subject, would be productive of an effusion of serum, or what is vulgarly termed a watery head. An effusion of serum in the tunica vaginalis producing hydrocele, or in the cavity of the abdomen occasioning ascites, may with equal propriety be attributed to inflammation, as an effusion of serum in the ventricles of the brain.

TREATMENT.—This disease is so gradual in its progress, that its nature is not evident till the effusion of serum is so considerable as to render all efforts to produce its absorption ineffectual. The most active means must be employed to stimulate the absorbent vessels of the brain, for the removal of the accumulated serum; for this purpose, a perpetual blister over the scalp, gentle electric shocks through the head, and the exhibition of mercury, are the most powerful remedies.

(One grain of calomel may be given in a little jelly three times a day, or a scruple of the strong mercurial

ointment may be rubbed on the inside of the thigh or arm twice a day, till it enter the skin. Some practitioners recommend the ointment to be rubbed over the blister for the purpose of being more speedily taken up into the system; and if the patient can bear it, it is certainly to be preferred. Five drops of the muriated tincture of steel may likewise be given in a little water two or three times a day, and the strength of the system supported by beef-tea, arrow-root, and a little wine.

In every other part of the body but the brain, absorbent vessels may be demonstrated, but in the brain they cannot be discovered by the most minute examination; but as effusions of blood in the brain are absorbed, there can be no doubt of their existence in this organ. Being less abundant than in any other part of the body, is probably the reason that the disease is generally fatal.

OF WEN.

This disease consists in an enlargement of the thyroid gland, situated on the front of the neck, in consequence of disease or debility of the absorbent vessels, or increased action of the secerning vessels of the part. Several remedies have been suggested for the cure of this disease, of which the burnt sponge has answered best. Lozenges of this medicine have been much recommended by Dr. Cheston, an eminent physician in Gloucester, and other respectable physicians have found this form to answer best; the advantages of which are attributed to its gradual solution in the mouth. Rubbing the surface of the tumour every night with salt, by rousing the action of the absorbent vessels, is a more plausible re-

medy, and has succeeded in removing glandular accumulations of considerable magnitude. The hand of an executed criminal, by producing a considerable sensation on the mind, has, on the same principle, succeeded in some instances. A dead toad hung round the neck is in some countries a favourite remedy.

In some cases, the source of its nourishment may be nearly cut off, by applying ligatures to the principal arteries that supply it with blood, which, when the vessels are superficial (as is often the case), is neither a painful nor difficult operation.

There are several species of tumours that form in different parts of the human body, which derive their names from the nature of their substance. I some time since removed one from the back of a carpenter (Mr. Thomas), at Abbey Tintern, in Monmouthshire, which weighed, after it was freed from blood, sixteen pounds twelve ounces. It had been gradually growing nearly twenty years, and had latterly, from its magnitude and weight, become so troublesome as to prevent him from following his occupation, which he has since pursued with greater ease than he had done for many years. The removal of a wen (which is always situated on the anterior part of the neck) by the knife, is, on account of the great blood-vessels connected with it, a dangerous operation.

OF WHITES, OR FLUOR ALBUS.

This disease consists in a slimy or puriform discharge from the passage leading to the womb, termed vagina. It varies in appearance, consistence, and quantity, in different persons. It generally proceeds from the va-

gina, but sometimes from the womb itself. Women of an erysipelatous habit, generally termed scorbutic, are most subject to it, and in them it proves very obstinate.

CAUSES.—It is the effect both of super-irritation and sub-irritation: i. e. the irritation producing the discharge is the consequence both of fulness or increased vitality, or of debility and relaxation, but most commonly the latter. Frequent miscarriages, difficult labour, and debility, are enumerated as causes of this disease.

TREATMENT.—When it arises from relaxation, the Tonic Pills, No. 82, page 75, generally succeed in effecting a cure.

Cold bathing, or the local application of cold water, by means of a *bidet*, is a very important remedy for this disease, and should be used every morning, provided the patient be free from cough or difficulty of breathing.

If the discharge continue after the due employment of these means, an astringent lotion may be made use of with advantage, as the following:—

Take of the pomegranate rind, bruised, three drachms; boil in a quart of water to a pint and half; then strain, and add alum, a drachm and half. To be injected by means of a female syringe.

The due employment of these remedies, with moderate exercise and a nutritious diet, will generally succeed in curing the disease.

If the stools are of a pale clay or very dark colour, or the patient be subject to erysipelas, or eruption of the skin, one grain of calomel should be taken every other night for about ten days or a fortnight.

When it arises from relaxation, these medicines, with the use of the astringent injection (twice a day), I have never known to fail in the most obstinate cases.

When fluor albus occurs in a person of a robust and sanguine habit, it may be considered of an inflammatory nature; in which case, instead of tonic medicines above recommended, the patient should take every, or every other, morning, two drachms of the Epsom Salt, as directed page 7, and ten grains of nitre powder, with fifteen of gum-arabic powder, in a glass of barley-water or almond emulsion, three times a day; which, with a low diet (free from all kind of stimulants), will succeed in curing it. To these remedies, the application of cold water, by means of the *bidet*, will prove a powerful auxiliary.

If the Epsom salt should occasion more than one or two motions in the course of twenty-four hours, the dose should be diminished, or taken less frequently.

When the discharge is of an *ichorous* nature, and of a *dark* or *yellowish* colour, and attended with *pain* in the region of the womb, or with irritation, burning heat, difficulty or heat of urine, troublesome itching, a sense of bearing down, and a frequent inclination to go to stool; pains on the approach, or during the time of menstruation; and particularly if pieces of coagulated blood (generally termed clots) are discharged; some *organic* disease of the womb may be suspected, especially if they occur about the time of the cessation of the menstrual discharge; in which case, the patient should lose no time in availing herself of the advice of an experienced surgeon.

The diet must depend on the general health of the patient. If she be weakly, and of a delicate constitution, it should be nourishing and easy of digestion, such as blancmange, and the vegetable and animal

jellies, with a small portion of meat; a little good Port or white wine may also be allowed, but water should be adopted in lieu of malt liquor: and if the complaint be attended with much irritation or pain on making water, it will be advisable to avoid pepper and much salt, but not otherwise. Warm diluent liquors, as tea and coffee, and the use of spirituous liquors, are very improper, and will certainly counteract the effects of medicine.

OF WHITE SWELLING.

This disease is the consequence of a tender structure or debility of the absorbent vessels of the ligaments of the joints, which constitutes what is termed *scrofula*. (See *Scrofula*, page 405.) It is often brought on by accidents, as bruises and strains, and sometimes by frequent attacks of rheumatism. The knee, ankle, and elbow joints, are generally the seats of this disease. The *scrofulous* white swelling begins with acute pain in the interior part of the joint, which is sooner or later succeeded by a gradual enlargement of the ends of the bones forming the joint, with a distension of the veins of the skin surrounding it.

TREATMENT.—The object of topical management is to prevent the formation of matter, by the application of leeches or cupping, which should be repeated every, or every other, day, according to the urgency of the case; the whole joint should then be kept continually wet and cool with the following lotion, by means of folds of old linen:—

Take of crude sal ammoniac, half an ounce; dissolve in spring water, one pint and half; then add vinegar, half a pint,

Two drachms of either of the Neutral Salts, No. 2, should be taken every morning, and the medicine already recommended for the king's evil, to strengthen or invigorate the absorbent system, and improve the general health.

When the part is in a quiet state—i. e. free from pain, and morbid degree of heat—friction with the hand is often very beneficial, by rousing the action of the absorbent vessels, and thereby producing a mutation of the deranged structure. The friction should be continued for two or three hours twice a day, with a little hair powder to prevent irritation of the skin. If the friction produce pain or inflammation, it should be discontinued, and a small blister applied to each side of the joint, the discharge of which should be kept up by dressing them every morning with the Savin Ointment, No. 44; for which purpose, the thin skin of the blister should be entirely removed. The limb should be kept perfectly quiet, and, when free from pain and inflammation, the joint may be gently moved once a day, to prevent adhesion and consequent stiffness. By the external irritation and discharge of blisters, continued for a length of time, with the constitutional treatment recommended for scrofula, many limbs have been saved, which by a hasty surgeon would have been condemned to the knife. When the blisters are healed up, the plaster of gum ammoniac and cicuta may be applied with advantage; and if there be a disposition on the part to recurrence of the mischief, an issue will also be necessary. The same local treatment is proper for the enlargement of a joint from rheumatism, which, if attended with fever,

requires the constitutional remedies as recommended for acute rheumatism.

OF WHITLOE, OR FELON.

This disease consists in an inflammatory swelling of the end of a finger, the pain and obstinacy of which depend on the part attacked: if the skin be only affected, the pain is trifling, and after the effused fluid is discharged, it soon heals, without endangering the nail; but if situated in the membrane beneath the skin, which is generally its seat, the symptoms are more violent; and if the membrane covering the bone be affected, the inflammation often extends to the hand, and the pain up the arm. The lymphatic vessels, and the gland in the arm-pit, are also often inflamed; in this latter case, if the disease advance to suppuration, the bone is generally rendered carious.

CAUSES.—It frequently occurs from external violence, particularly from punctures and bruises; but it happens more frequently without any evident exciting cause, in which case it is probably connected with a bad habit of body.

TREATMENT.—As the matter that forms in this disease is generally of that acrid nature as to corrode the soft parts, and even the bone, it will, in all cases, be advisable to prevent suppuration by applying four or five leeches, and encouraging the bleeding by immersing the hand in warm water after the removal of the leeches: when the bleeding has ceased, the finger should be wrapped up in soft linen, and frequently moistened with spirit of wine. The Aperient Mixture, No. 62, taken as there directed, will also be necessary;

and if the patient be of a plethoric habit of body, or the arm much inflamed, six or eight ounces of blood should be taken from the arm. If these means should fail of dispersing it, an incision should be made into the part, nearly to the bone, which will effectually prevent suppuration, and thus preserve the nail and the bone.

When an effusion of serum has taken place, it should be let out as soon as possible, to prevent it increasing the internal mischief, particularly if deep-seated. A poultice may then be applied, which, with the occasional use of a little brandy, will effect a cure. But so many untoward circumstances happen in those cases, such as caries of the bone, the formation of fungus under the nail, &c. that it will always be advisable to apply to an experienced surgeon, whose timely assistance will not only prevent much mischief, but save the finger.

OF WORMS.

The species of worms that are most prevalent in the human body are three, viz. *ascarides*, or small round and short worms, which chiefly occupy the lower intestine; the *teres*, or round and long worms*, which are generally seated in the small intestines and stomach; and the *tænia* or tape-worm, which for the most part possesses the whole tract of the intestinal canal.

SYMPTOMS.—The symptoms denoting the existence

* The round long worm being generally considered to be of the same nature as the earth-worm, I shall briefly notice in what their difference consists. On examining their outward appearance with attention, the human worm will be found

of worms are common to the different species, viz. indigestion, with a variable appetite; foul tongue; offensive breath; hard, full, and tense belly, with

more pointed on both extremities than the common earth-worm. The mouth of the human worm consists of three rounded projections, with an intermediate cavity; whereas the mouth of the earth-worm consists of a longitudinal fissure, situated on the under surface of a small round head. Upon the under surface too of the human worm there is a large semilunar fold of skin, into which the head retreats, and out of which it is elongated, which is entirely wanted in the teres. The anus of the human worm is situated on the under surface, a little way from its posterior extremity, and appears like a transverse curved fissure. The anus of the earth-worm is an oval aperture at the very extremity of the worm. The outward covering or skin of the human worm is less fleshy and not so strongly marked by transverse rugæ as the earth-worm. In the latter there is often to be seen a broad white band surrounding the body of the worm; but in the teres this is entirely wanting. On each side of the human worm there is a longitudinal line well marked; in the other worm there are three such lines upon the upper half of its surface, but very faintly marked, so as to be hardly discernible. The human worm has nothing resembling feet, whereas the earth-worm has on its under surface and towards its posterior extremity a double row of processes on each side, very evident to the eye and finger, which manifestly serve the purpose of feet on the locomotion of the animal. The internal structure of both animals is also extremely different: in the human worm there is an intestinal canal, nearly uniform and smooth in its appearance, which passes from one extremity of the worm to the other. In the earth-worm there is a large and complex stomach, consisting of three cavities, and the intestinal canal is likewise larger and more formed into sacculi than the former: the parts subservient to generation are very different in both; there being in the human worm a distinction of sex, the parts being different in the male and female, whereas the common earth-worm is an hermaphrodite. The human worm depending upon the body it inhabits for a supply of heat, has no powers within itself for its production, and consequently is expelled from the body immediately on parting with its heat.

occasional gripings and pains about the navel; heat and itching sensation in the rectum and about the anus; the eyes heavy and dull; itching of the nose; short dry cough; grinding of the teeth*; and starting during sleep, attended often with a slow fever.

CAUSES.—As worms are generally found only in persons of weak digestive organs, indigestion may be noticed, if not the principal cause, at least as favouring their generation. There is nothing, however, in the economy of animals more involved in mystery than the generation of these parasitical animals. Were they found to live in situations out of the bodies of living animals, one might readily suppose that their eggs were taken into the body with the food or drink, and there gradually evolved into animals: this, however, is not the case; they are evidently incapable of existing for any length of time in any situation, except within a living animal body, which appears to be the proper place for their growth and residence. We might, therefore, be led to another supposition, viz. that they are really formed from the matter contained in the intestines, which previously had no regular organization; but this idea is widely different to all analogy in the production of animals. The origin, therefore, of such animals is a subject of much obscurity. That they are not produced by ovula of animals taken with the food, is not only obvious from their being found in the liver and brain, but from the frequency of another kind of animal, so

* This strong involuntary action of the muscles of the lower jaw is a proof how much the muscular system is affected by irritation in the stomach and bowels.

commonly generated in the kidneys, brain, and liver, named hydatids*.

TREATMENT.—The indications of cure are, first, to clear the stomach and intestines of redundant slime, and afterwards to strengthen the stomach and bowels, so as to destroy the disposition to their generation.

The first object is best accomplished by brisk cathartic medicines, as the Basilic Powder, No. 36, a dose of which should be taken every second or third morning, for at least a fortnight, and the Tonic Mixture, No. 77, in the intermediate time. Lime-water being capable of dissolving the mucus in which the worms are involved, may be taken in the quantity of a teacupful, two or three times a day, during the operation of the basilic powder, and with the tonic mixture; the Electuary of Tin, No. 86, page 76, may likewise be taken every morning and evening.

In domestic medicine, an infusion of Indian pink has been generally employed for the destruction of worms in children, and often with success. The giddiness, stupor, dimness of sight, redness and pain in the eyes, that sometimes affect the patient during the use of this medicine, prove that it should be administered with

* There is not the least doubt but hydatids are animals; they have been seen to move when taken out of the liver, and they retain their power of motion for some time when put into warm water. The origin of such animals is extremely mysterious; and when the whole evidence of one and the other opinion is compared together, the grounds for believing that in some orders of animals equivocal generation takes place, appears stronger than those for a contrary opinion. Persons who wish to consider those animals more minutely, will find an excellent account of them, published by Dr. John Hunter, in the Medical and Chirurgical Transactions, p. 34.*

caution, and not till after safer vermifuges have been tried in vain. The decoction of quicksilver is also a popular remedy, but I conceive equally unsafe.

Powdered rust of iron is a very excellent vermifuge medicine, and where the complexion of the patient is pale, or the system weakly, is preferable to any other; but when the countenance is florid and the habit evidently plethoric, it is not so proper as the Basilic Powder, No. 36, page 50. The powdered rust of iron is recommended by Dr. Rush to be given from five to thirty grains, in a little currant jelly or brown sugar, for children between one and ten years' old. "Of all the worm medicines that I have administered," observes this eminent physician, "I know none more safe and certain than this simple preparation of iron. If ever it fails of success, it is because it is given in too small a dose." Taught by an old sea captain, who was cured of tape-worm by this medicine, Dr. Rush has given to adults from two drachms to half an ounce of it every morning for three or four days, not only with safety, but with uniform success; the addition of ten grains of granulated tin has been found to increase its vermifuge powers.

The hairy down which covers the pods of cowage, made into an electuary with treacle, is much recommended by Mr. Chamberlayne, surgeon in London. The electuary, in the dose of a tea-spoonful, is said to be perfectly safe, and that two or three doses generally suffice.

The common male fern-root has been much extolled as a certain remedy for the *tape*-worm. The following directions are given for its use:—"Two or three

drachms of the powdered root to be taken in the morning, no supper having been taken the night before. It generally sickens a little. A brisk purgative, with a little calomel (as the Basilic Powder, No. 36), is to be given a few hours after, which sometimes brings off the worm entire; if not, the same course must be followed at due intervals." For the success of this remedy, it is necessary the root should be *recently* gathered; as after being kept long in the shops, its activity is diminished or destroyed. It should be used recently dug, being brought to a state fit for powdering, by drying it in a gently-heated oven, or within the gentle heat of a fire.

Since the publication of the last edition of this work, the spirit of turpentine has been found to be very efficacious in the expulsion of the tape-worm: it is given in the quantity of a large teaspoonful, mixed with a little honey, twice a day. In some instances the dose was increased to a large tablespoonful.

The *ascarides*, or round short worms, are principally lodged in the lower intestines, and, through being enveloped in mucus, are often very difficult to dislodge. With the use of the basilic powder, it will be proper to inject the following by means of the lavement syringe:—

Take of martial flowers, twenty grains; lime-water, eight ounces.
Dissolve the flowers in the lime-water. To be injected warm.

A strong decoction of Indian pinks, with common salt, has been recommended by Dr. Clark; and a solution of asafoetida in water and tobacco fumes, by other eminent physicians; to be thrown into the rectum. The muri-

ated tincture of steel would probably prove more powerful, if the worms were not defended from its action by the mucus in which they are so completely invested. Soap lees have been recommended for dissolving the mucus, but they often produce considerable irritation. The repeated use of the basilic powder, with the injection of the solution of steel, as above directed, generally succeeds in destroying them.

PREVENTION.—For the prevention of worms, it will only be necessary to attend to the state of the digestive organs, and to avoid such diet as is likely to derange them, as acid or unripe fruit, fermented liquors, &c. If the pale or dark appearance of the fæces should indicate a deficiency of the secretion of bile, the patient should take half a grain of prepared calomel at bedtime, for five or six nights; for nothing is more destructive to the life of worms than a proper secretion of bile. (See Indigestion.)

Children are very subject to an irritative fever, from having been indulged in too great quantities of fruit or acescent food, which is generally attended with the symptoms I have noticed as denoting the existence of worms. This fever has therefore been termed by Dr. Musgrave the *Spurious Worm Fever*; and latterly, by Dr. Butter, the *Infantile Remittent Fever*. Dr. Hunter states, that he dissected “a great number of children who had been supposed to die of fever arising from worms, in whom he did not discover the least appearance of worms.” This fever is evidently symptomatic of a disordered state of the digestive organs, and may be cured by a gentle emetic of ipecacuan powder, the occasional use of the Basilic

Powder, No. 36, and a little stomachic medicine, as camomile tea, with the Prepared Natron, as directed No. 60, which will also prove of service should the fever arise from worms.

No disease offers such a field for the imposition of quacks as worms. Mercury is the basis of all the worm-specifics that have fallen under my examination. The articles with which mercury is mixed to form it into lozenges becoming acid by keeping, the mildest preparation of mercury may be thus converted into a powerful poison, nearly equal in violence to arsenic; besides, the mercury not being well blended with the other ingredients, from the quantity that is made at a time, it may, and I know it has happened, that one nut has contained an over-dose of mercury, while another in the same box has scarcely contained any. To these circumstances the many fatal effects that have followed the exhibition of advertised remedies for worms may be attributed.

In consequence of the request of several friends of this work, the author has ordered the Basilic Powder to be kept at the Chemical and Medical Hall, 20, Bedford-street, Covent-garden, well blended with gingerbread, and carefully divided into nuts, containing twenty grains each, which, in consequence of being well mixed, may be divided into doses proportioned to the age of the patient. In this form it is readily administered to children, and the ginger in the composition corrects its griping quality;—besides, the most active part of the medicine, being very ponderous, is frequently lost by being administered in a thin vehicle.

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