The medical guide, for the use of the clergy, heads of families, and practitioners in medicine and surgery / [Richard Reece].

Contributors

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Albert Wilson

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Albert Wilson

Newcastle on Tyne

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Albert Wilson

Newcastle on Tyne

November 4th 1871

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.

THE TWELFTH EDITION, WITH ADDITIONS.

Qui studet optatam cursu contingere metam
Multa ferat faciatque.

London:

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

1817.

95620

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BARNARD AND FARLEY,
Skinner-street, London.

TO

WILLIAM WILBERFORCE, ESQ. M. P.

&c. &c. &c.

SIR,

THE former Editions of this Work were inscribed (by permission) to the late very eminent Bishop of Landaff, and I shall ever reflect with pride and gratitude that my labours were honoured with the approbation of that distinguished Prelate. The public look to the acknowledged superiority of eminent characters and transcendent abilities as a beacon to direct popular opinion, and to inform the judgment of the community; and I have reason to believe that the success of the Work was essentially promoted by the support and recommendation of a Prelate, whose extensive learning was exceeded only by his inflexible integrity and independence of spirit.

In looking around for a patron to this new and improved edition of the Medical Guide, what name can be found more worthy to succeed that ornament of the British Empire than that of Mr. Wilberforce? *If a life devoted to the cause of humanity, if the most generous philanthropy, and the most enlightened patriotism, give a claim to the veneration of mankind, that of Mr. Wilberforce can be second to none among the numerous exalted characters of this kingdom. But it is not to the subjects of these realms, however extensive, that* his *celebrity has been confined. The gratitude of both hemispheres is raised to him who has broken asunder the fetters of the hapless African, and the tongue of every friend of human nature dwells with delight on this great triumph of humanity.*

You will forgive the liberty I am taking in prefixing your name to this Work. Though my efforts have an humbler aim than that which animated your splendid exertions, I hope they are not without their utility. Their

great object is to inform the mass of mankind on subjects most connected with their welfare, and to afford the means of relief in urgent cases of distress, especially when professional assistance cannot be obtained. That this is a point involving often the comfort and Lives of our dearest relatives is too obvious to dwell upon. I cannot but hope, then, that this and my other attempts to diffuse useful knowledge, and make it subservient to the public welfare, will be honoured with your support and approbation.

Sincerely wishing you to enjoy for many years the meed of your well-earned reputation,

I beg to subscribe myself,

Sir,

Your very obedient servant,

RICHARD REECE.

8, Bolton-Row, Piccadilly,
March 22, 1817.

PREFACE.

DOMESTIC Medicine has been, of late years, so successfully cultivated on scientific principles in this country, that it is no longer a question, whether or not the sum of human suffering has been diminished by it. So highly is this knowledge appreciated by every class of the community, that the only question now is, does the Public derive the greatest benefit from it, or from professional attendance? The *Medical Guide*, the Author has the satisfaction to learn, from every quarter, has enabled the Clergy, and other benevolent characters, not only to mitigate the sufferings of their neighbours afflicted with disease, but to restore many to the enjoyment of health, whose cases had been declared hopeless by medical men. Such characters being actuated by no other motive than to administer relief to the diseased, instead of overloading the stomach with medicine; those means are promptly adopted which the nature or urgency of the case may point out: they are also more particular in giving instructions respecting diet, clothing, ventilation of chambers, &c. than is customary with members of the profession. By a knowledge of medicine, the Public is likewise enabled to distinguish the man of merit from the pretender. Of those medical men, who persist in decrying all attempts to diffuse a knowledge of medicine among the mass of mankind, let the Public inquire, to what degree of perfection the healing art is brought! So far from a fundamental principle being established, upon which all medical men agree, is not the art founded on conjecture, and do not physicians, even in acute diseases, recommend treatments diametrically opposite? The fact is, that such is the deplorable

state of the art, that let a patient consult twenty physicians, he will find, that even in a simple case, all will give a different opinion respecting either the seat, the nature, or mode of cure of his malady!! If this be then the perfection to which the medical art is brought, no set of men has a right to claim the exclusive privilege of attending the sick, and prescribing for the cure of their maladies, on account of possessing a superior knowledge of the nature and cure of diseases. The Author flatters himself he has, in the Introduction to the Second Part of this Work, given such a description of the human body, the offices of the different organs, nature of disorders, &c. that will enable any person of common sense to combat disease on scientific grounds, and to preserve that great blessing—Health.*

It is the interest of inexperienced and sordid Physicians, that an utter ignorance should prevail in regard to Medicine, and he who dares to diffuse a knowledge of it is sure to be visited with the full measure of their wrath and indignation. The author, like other popular writers, has been *honoured* with his share of their abuse. As the diffusion of general knowledge has completely undermined the great basis of medical mystery, these liberal gentlemen, instead of cloaking their ignorance under the mask of gravity and importance, would do right to cultivate the art as becoming men of *real* science, and before they take upon themselves the important office of Physician, to become conversant with every branch of medical science, so as to be able to concentrate the rays of each department on the important question of practice, and instead of condemning domestic medicine, merely because it enables the public to distinguish the

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* Mons. Castaignet, Physician and Surgeon, of Bourdeaux, in a letter, states,—"Since I have been acquainted with your System of Medicine, I have been able to cure diseases speedily which were before little under my controul, and I find all the plans you recommend much more effectual than those I had been in the habit of employing."

man of merit from the impostor or pretender, to endeavour to be in advance with it in *practical* and *fundamental* knowledge; and laying aside all sordid and unworthy motives, to unite in a generous and public-spirited manner to establish the profession upon a respectable and rational foundation, so as to draw a clear line of demarcation between properly educated physicians and ignorant pretenders, and thereby place themselves on a level with the members of other learned professions, for common sense, common honesty, and common humanity, they must be aware are at variance with the present condition of medicine. In the preface of his Medical Dictionary, the author has given a candid and full *exposé* of the present state of Medicine in this country, as practised by Physicians, Surgeons, and Apothecaries; and if he has expressed his indignation too warmly, he begs the Members will attribute it to his zeal and firmness to rescue the profession from the obloquy and stigma which have been attached to it by the venal practices of those partially educated Physicians, who court popularity by pretending extraordinary depth in anatomy, chemistry, or the dead languages!! "Men, who," as a late writer observes, "have basely sacrificed the health and lives of their fellow-creatures, at the shrine of avarice and gain."

The Medical Guide is the result of twenty-five years' close study, aided by an extensive private and hospital practice. The very favourable reception it has met with from an enlightened public, demands the Author's most grateful acknowledgment. Within the space of ten years, it has gone through eleven heavy editions; it has obtained the sanction of the medical men of this country, and of the Continent, esteemed for skill and liberality; and at this time is in greater demand than any other Medical Work. It has been translated into several languages on the Continent, and reprinted in America: circumstances which have encouraged the Author to pay great attention to the present Edition.

Among the recent discoveries in medicine he has introduced in it, are a method of treating rheumatism and gout, by friction and pommelling, which was first adopted in this country by *Admiral Henry*, and lately much recommended by *Dr. Balfour*, an eminent physician of Edinburgh; a speedy and efficacious mode of curing cutaneous diseases, palsy, chronic rheumatism, &c. employed by Dr. Gales, of Paris; an account of a valuable antibilious and stomachic medicine, lately introduced by an experienced physician of Bengal, under the name of Bengal Antibilious Pills; and also a tincture for the gout, discovered by Dr. Wilson, of Yoxford.

To promote the object of this publication, the author has lately undertaken to edite a monthly work, entitled the *Monthly Gazette of Health*, on the same plan as the *Gazette de Santé of Paris*, which, for public utility, has long maintained great celebrity on the Continent. The intention of this work is to communicate all discoveries that may be made in the known world, regarding the means of preserving health, of curing diseases incident to the human race, and of promoting domestic economy, and the comforts and well-being of every class of the community. It also gives the composition of all the advertised remedies, and proprietary medicines, so far as it can be ascertained by chemical examination, to enable the reader to discover those which possess merit from those which are evidently dangerous. The artful practices of the regular and irregular quacks and pretenders, who, for the sake of lucre, are base enough to tamper with the lives of their fellow-creatures are also fully exposed.

To render this work generally useful, each number will be found to contain,

1. An original article on the most effectual means of preventing and curing the disease or diseases that may prevail at the time of publication.

2. A selection from the foreign and domestic works of such information as may tend to promote the professed object of the work.

5. Prescriptions of eminent physicians and surgeons, translated into English, with an account of their effects, and the diseases for which they are given.

6. Original communications on subjects respecting the means of preserving health, cheap methods of preparing articles of diet, family receipts, &c.

7. All discoveries in chemistry and other branches of philosophy that are likely to prove of public benefit, or to amuse and instruct the mind.

8. Any information that may be solicited by a correspondent, consistent with the professed object of this Work, is given in the subsequent number.

In the Prospectus of this Work the Editor has certainly promised much very useful and interesting information. He has now completed the first Volume, containing twelve monthly Numbers, to the pages of which he appeals with the greatest confidence for having fulfilled his engagements, and he flatters himself that it contains more valuable matter than is to be found in any other periodical work. A Number of this Work is published on the first of every Month, at the low price of One Shilling, that it may be within the reach of every class of the community; and regulations have been made, that it may be obtained of all respectable Booksellers throughout the country a few days after its publication in London.

UNDER THE SANCTION OF THEIR GRACES

THE ARCHBISHOPS OF CANTERBURY, YORK, DUBLIN, AND SEVERAL BISHOPS,

The Author has lately published, a new and enlarged Edition of

A Dictionary of Domestic Medicine,

FOR THE PURPOSE OF

ENABLING THE CLERGY AND GENTLEMEN, RESIDING IN THE COUNTRY, AT A DISTANCE FROM MEDICAL AID,

TO ADMINISTER RELIEF TO THEIR NEIGHBOURS,

Labouring under the complicated Evils of Poverty and Disease.

Finding the purchasers of the Medical Dictionary

were in possession of his Medical Guide, the Author has omitted in this new Edition of the Dictionary, the articles contained in that work, so that the Dictionary may be considered a Companion to it, for such of his readers as may be desirous to extend their knowledge of medicine to anatomy, the virtues of British herbs and mineral waters, the properties of different articles of diet, &c. &c. Considering the Medical Dictionary more for the use of private libraries, he has also introduced in it the history and treatment of the diseases which, from motives of delicacy, he has thought proper to omit in the Medical Guide. In these Works the Author flatters himself every information 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 may disturb his general health. Price 16s. in boards.

FOR THE USE OF BRITISH SUBJECTS,

VISITING

THE EAST AND WEST INDIES, THE COAST OF AFRICA, AND DIFFERENT COUNTRIES ON THE CONTINENT,

He has lately published a Work, under the Title of

THE MEDICAL GUIDE

FOR

Tropical Climates, &c.

Containing full Instructions for the Prevention and Cure of the Diseases of the East and West Indies, and Coast of Africa, and those which occur on the Voyage, a System of Regulations for the Health of Europeans on their Return from hot Climates, Remarks on the Climates and Diseases of the different Countries of Europe, particularly *Holland*, *Russia*, *Germany*, *Poland*, *Spain*, with Rules for the Preservation of the Health of Travellers to these Places, &c. &c. Price 9s. in boards.

AS A COMPANION TO THE PORTABLE CHEST OF CHEMISTRY,

THE AUTHOR HAS ALSO PUBLISHED,

The Chemical Guide.

This Epitome of Modern Chemistry comprises the general laws of chemical action, the methods of preparing chemical re-agents, and of using them in the analysis of natural and artificial products. An account of the nature and formation of elastic fluids, with a great variety of amusing and instructing experiments; to which are added, means of detecting the adulteration of medicinal and other substances, directions for making domestic chemical articles of real utility, tables of affinity, a view of animal chemistry, as explaining the laws and functions of the animal machine, and the phenomena of disease, a glossary, explanatory of the technical terms employed in chemistry, an account of a chest of chemical apparatus for the use of students, &c. &c. &c.

Of all the studies that of chemistry is the most sublime and delightful; and such is the general utility of the science, that there is scarcely an avocation that is not more or less benefited by it, for the works of nature, which the ignorant view with total indifference as mere confused masses and rubbish, the chemist finds endowed with a beautiful organization, and is able to appreciate their importance in the creation. To him, indeed, every production of nature is interesting. In investigating the varied works of the Creator, he clearly discovers an over-ruling Providence, and "through Nature sees Nature's God." Hence chemistry, more than any other study, ennobles the mind and raises it to the contemplation of that power—

> "At whose most potent nod effect and cause
> Walk hand and hand according to his laws,
> Rise at volition's call, in groups combin'd,
> Amuse, delight, instruct, and serve mankind."

THE

CHEMICAL & MEDICAL HALL,

171, PICCADILLY,

OPPOSITE BOND-STREET.

THIS Establishment was instituted by the Author in the year 1800, for the purposes of supplying the Public with genuine drugs of the best quality, and with the choicest chemical preparations, and for compounding prescriptions with accuracy, on the most reasonable terms. The sanction it has experienced from the Royal Family, the Nobility, and the most celebrated chemical and medical Characters in the United Kingdom, he considers a proof of its having been conscientiously conducted. In consequence of the Author's having unmasked a certain class of medical impostors, and been active in diffusing a knowledge of medicine among the mass of mankind, he has met with opposition from those enemies of true science. One of these gentlemen, in noticing his Medical Guide, has stated, that "the chief object of the publication is to advertise the Medical Hall."—Now, if any merit be due to the Author for his endeavours to improve domestic medicine, he certainly considers himself entitled to much more for establishing an Institution, where the Public may obtain genuine drugs, and where prescriptions may be faithfully compounded, at a time when adulteration of drugs, and the substitution of them in compounding medicines, prevailed to an alarming degree—a degree which equally endangered the life of the patient, and the reputation of the prescriber. He will, however, defy the writer to bring forward an instance of a bad drug having been obtained from the place, or of a mistake in the compounding of a prescription, since its establishment, a period of sixteen years. But genuine drugs, he says, "were

always to be obtained at Apothecaries' Hall;" this may have been the case; although, if the statements recently published by Mr. Phillips, a scientific chemist of London, who examined them, be facts, that Company has not been so careful in their preparations as they should have been. Now, as they do not import their drugs, but go to the same markets as the proprietors of the Medical Hall, there can be no reason why their articles should be of a better quality. As to chemicals, he has no hesitation in asserting, that those sold at the Medical Hall are, generally speaking, superior to those sold at Apothecaries' Hall. The extravagantly high price at which drugs are retailed at the latter place, is too notorious to render any remark on the comparative prices necessary.

The Author has received from his friends residing in the East and West Indies, America, and in the country, many complaints of their agents in London having taken their commissions to the shops of chemists and druggists to be executed, although they were desired to apply to the Medical Hall; and some merchants in the City not having heard of the Medical *Hall*, have supposed that their correspondent meant Apothecaries' *Hall*. In order, therefore, that his friends may know whether or not their commissions were executed at the Medical Hall, he begs to state, that no article is sold there, or sent out, without a printed label, expressive of its name, and of its having been obtained at the *Medical Hall*, 171, *Piccadilly*. This regulation has been adopted not only for the satisfaction of his friends, but for the support of the reputation of the Establishment.

The Author attends every Monday, Wednesday, and Friday, from eleven to two o'clock, at the Medical Hall, to give his advice to patients properly recommended as objects of charity.

MEDICINE CHESTS,

&c. &c.

The following Dispensaries and Chests are kept at the Medical Hall, properly fitted up for different Climates.

THE Chests are neatly made of mahogany, and the Bottles of the best flint glass, with air-tight stoppers. The bottles, drawers, and pots, have titles on them expressive of their contents, with a numerical reference to the Book of Directions.

THE FAMILY DISPENSARY.

This Chest is described in the third page of this Work, and its contents enumerated in the fourth and fifth pages.

There are six sizes of this Chest. The price of the largest size completely fitted up, with Medicines, Book of Direction, &c. is £20 8 0

The SECOND SIZE, complete £17 10 0

The THIRD SIZE, with four bottles on the back, five on the front, nine in each wing, six in a drawer—three small and three large drawers—six pots for ointments and pills, furnished with medicines—pestle and mortar, graduated measure, funnel, ivory scales and weights, spatula, bolus knife, lavement bag and pipe, syringe, book of directions, &c. complete £13 10 0

The FOURTH SIZE, containing the same articles as the Third Size, complete £10 6 0

The FIFTH SIZE, containing four bottles on the back, five on the front, six in each wing, six small ones in a drawer—four large and two small drawers—six pots for ointments and pills, furnished with medicines, pestle and mortar, funnel, measure, bolus knife, spatula, lavement bag and pipe, with book of directions, &c. complete £8 12 0

The SIXTH SIZE, containing three bottles on the back part, four in the front, six in each wing, six in a drawer, two drawers furnished with medicines, pestle and mortar, spatula, bolus knife, graduated measure, scales and weights, book of directions, &c. complete £6 6 0

THE COUNTRY CLERGYMAN'S DISPENSARY.

This Chest is made on a very cheap plan, and supplied with Black Bottles.

The FIRST SIZE contains

Eight half-pint bottles, for

Magnesia	Castor Oil	Mindererus's spirit	Flowers of sulphur
Epsom Salts	Tincture of rhubarb	Cream of tartar	Senna leaves

Twenty-four wide and narrow-mouth square bottles, for

Huxham's tinct. of bark	Spirit of Hartshorn	Vol. tinct. of guaiac gum	Rhubarb ditto
Tincture of Senna	Ditto sal volatile	Cajeput Liniment	Jalap ditto
Ditto camomile & ginger	Sweet spirit of nitre	Extract of lead	Camphorated powder
Spirit of lavender	Vitriolic ether	Salt of wormwood	Cretaceous powder
Paregoric elixir	Antimonial wine	Peruvian bark	Gum arabic
	Tincture of myrrh	Ipecacuan powder	Purified nitre
	Diluted vitriol. acid		

Eight bottles in a drawer, for

Liquid laudanum	Emetic tartar	powder, commonly called James's fever powder	Camphorat. acetic acid
Essence of peppermint	Salt of steel		
Prepared calomel	Basilic powder		
	Antimon. febrifuge		

Six pots in a drawer, for

Blistering plaster	ment	Brown cerate	Squill pill
Spermaceti ointment	Yellow basilicon	Aperient pills	

A large drawer, for

Diachylon plaster	Spatula	Pestle and mortar	Tourniquet
Gum plaster	Bolus knife	Graduated measure and funnel	Probang
Lint	Box of scales and weights	Lavement bag	Book of directions, &c.
Court plaster	Tyle		
Leather			

Complete, with medicines £9 5 0

The SECOND SIZE. Containing eight half-pint bottles, eighteen 4 oz. bottles, six small bottles in a drawer, six pots for ointment and pills, partitions for plasters—spatula, bolus knife, scales and weights, pestle and mortar, graduated measure, tyle, lavement bag and pipe, tourniquet, probang, and book of directions. Complete with medicines £8 6 0

The THIRD SIZE. Containing, on the top, three half-pint bottles, twelve 4 oz., a large drawer with five small bottles, five pots—pestle and mortar, graduated measure, scales and weights, bolus knife. Complete, with medicines and book of directions £5 5 0

THE TRAVELLER'S DISPENSARY,

Made flat, for the Pocket of a Carriage.

Contains on the top *five bottles in a row, for*

Magnesia	Huxham's tinct. of bark	Rochelle Salts	Cajeput Liniment
Tincture of rhubarb			

Five smaller bottles in a drawer, for

Spirit of hartshorn	Essence of peppermint	Antimonial powder	Laudanum
Rhubarb powder		Ipecacuan powder	Prepared calomel

A drawer, for

Court plaster	Lint	Scales and weights	Book of directions

Complete £3 10 0

CONTINENTAL DISPENSARY.

For the Use of Travellers to FRANCE, GERMANY, ITALY, HOLLAND, SPAIN, and RUSSIA.

THE LARGEST, or FIRST SIZE, contains in the upper Partition,

Eight half-pint bottles, for

Magnesia	Castor oil	Mindererus's spirit	Flowers of sulphur
Epsom salts	Tincture of rhubarb	Cream of tartar	Senna leaves

Twenty-four wide and narrow-mouthed square bottles, for

Huxham's tinct. of bark	Spirit of hartshorn	acid	Ipecacuan powder
	Ditto sal volatile	Vol. tinc. of guaiac	Rhubarb ditto
Tincture of senna	Sweet spirit of nitre	gum	Jalap ditto
Ditto camomile & ginger	Vitriolic ether	Cajiput liniment	Camphorat. powder
	Antimonial wine	Extract of lead	Cretaceous powder
Spirit of lavender	Tincture of myrrh	Salt of wormwood	Gum arabic
Paregoric elixir	Diluted vitriolic	Peruvian bark	Purified nitre

Eight bottles in a drawer, for

Liquid laudanum	Emetic tartar	powder, commonly called James's fever powder	Camphorat. acetic acid
Essence of peppermint	Salt of Steel		
	Basilic powder		
Prepared calomel	Antimon. febrifuge		

Six pots in a drawer, for

Blistering plaster	ment	Brown cerate	Squill pill
Spermaceti oint-	Yellow basilicon	Aperient pills	

A large drawer, for

Diachylon plaster	Leather	weights	and funnel
Gum plaster	Spatula	Tyle	Lavement bag
Lint	Bolus knife	Pestle and mortar	Tourniquet
Court plaster	Box of scales and	Graduatedmeasure	Probang

Complete with medicines, and book of directions £9 15 0

THE SECOND SIZE. Containing eight half-pint bottles, eighteen 4 oz. bottles, six small bottles in a drawer, six pots for ointment and pills, partitions for plasters—spatula, bolus knife, scales and weights, pestle and mortar, graduated measure, tyle, lavement bag and pipe, tourniquet, probang, and book of directions. Complete with medicines..... £8 16 0

THE THIRD SIZE. Containing, on the top, three half-pint bottles, twelve four ounce, a large drawer with five small bottles, five pots—pestle and mortar, graduated measure, scales and weights, bolus knife. Complete, with medicines and book of directions..... £5 9 0

THE TROPICAL DISPENSARY.

For the East and West Indies, Africa, and South America. Of this Chest there are four sizes.—The largest size contains in the upper division,

Four pint bottles, for

Magnesia	Peruv.bark powder	Epsom salt	Mindererus's spirit

Sixteen half-pint bottles, for

Tinct. of rhubarb	Antimonial wine	Compound tinct. bark	vender
Paregoric elixir	Sp. sal volatile	Vol. tinct. guaiac gum	Comp. tincture of senna
Castor oil	Liquid laudanum	Comp. spirit of la-	Ginger powder
Salt of wormwood	Camphorated spirit		Extract of lead
Concrete acid of lemon	Cajeput liniment		

Thirty-two four ounce bottles, for

Diluted vitriolic acid	Bals. Copaivi	Nitre ditto	Dover's powders
	Ipecacuan powder	Camphorated powder	Antimonial powder
Tincture of myrrh	Olive oil		Alum
Ether	Oil turpentine	Aromatic tincture	Vitriolated zinc
Rhubarb powder	Sp. hartshorn	Prepared natron	Muriated tincture of steel
Jalap ditto	Tinct. ginger and camomile	Essence of peppermint	
Basilic ditto			Cascarilla powder
Compound cretaceous ditto	Sweet sp. nitre	Ditto cinnamon	Hoffman's anodyne liquor
Tincture asafœtida	Salt of steel	Comp. tinct. gentian	
	Gum arabic powder		Ipecacuan wine

In the drawers—partitions, for

Senna leaves	Cream of tartar	Tow, corks, syringes	Tourniquet, probang, &c.
Peruvian bark bruised	Flowers of sulphur		
	Different plasters		

Twelve bottles, for

Prepared calomel	Acetic acid	ache	Opium powder
Red precipitate	Essential salt of bark	Lunar caustic	Essence of pennyroyal
Emetic tartar		Red precipitate	
Smelling salts	Essence for tooth-	Blue vitriol	

Eight pots, for

Mercurial ointment	Brown cerate	Spermaceti ointment	Aperient pills
	Citrine ointment		Squill pill
Yellow basilicon	Blistering plaster		

Partitions for

Scales and weights, graduated measures, bolus knives, spatula, slab, &c.

This chest, furnished as above, with book of directions, amounts to.....£16 10 0
Second Size ditto... ..... 13 15 0
Third ditto ditto..... ..... 10 5 0
Fourth ditto ditto..... 8 15 0

THE LADY's DISPENSARY.

CONTAINS IN THE UPPER PART

Twelve bottles, for

Epsom salt	Tincture of rhubarb	Salt of wormwood	Huxham's tinct. bark
Peruvian bark powder	Spirit sal volatile	Concrete acid of lemon	Tincture of rhatany
Castor oil	Comp. spirit of lavender	Camphorated spirit	

Six bottles in the drawer, for

Rhubarb powder	mint	Camphorated acetic acid	Tincture for tooth-ache
Laudanum	Ipecacuanha		
Essence of pepper-			

Two boxes in the drawer, for

Ephractic pill	Tonic pill

With graduated measure, pestle and mortar, scales and weights, bolus knife, and book of directions £5 10 0

THE SEA MEDICINE CHEST.

FOR THE

USE of NAVY SURGEONS and CAPTAINS of MERCHANTMEN,

This Case is made of deal, and furnished with black bottles.

CONTENTS.

Eight wide and narrow-mouth two quart bottles, for

Olive oil	wine	powder	Flowers of sulphur
Spirit of turpentine	Epsom salt	Opodeldoc	Distilled Vinegar
Rectified spirit of	Peruvian bark		

Sixteen one quart narrow and wide-mouth bottles, for

Camphorated spirit of wine	of bark	Oil of almonds	Castor oil
	Aromatic tincture	Extract of lead	Magnesia
Sweet spirit of nitre	Comp. tincture of gentian	Tincture of rhubarb	Purified nitre
Spirit of hartshorn		Paregoric elixir	Gum arabic
Huxham's tincture	Ditto ditto senna	Antimonial wine	

Twelve pint bottles, for

Vitriolic acid	Comp. Tincture of benzoin	Spirit of sal volatile	Tincture of opium
Nitric acid		Acid elixir of vitriol	Prepared kali
Muriatic acid	Volatile tinc. of guaiacum	Spirit of sal ammoniac	Ether
Tincture of myrrh			

Thirteen half-pint bottles, for

Muriated tincture of steel	Jalap powder	Tincture of asafœtida	Balsam copaivi
	Prepared oyster shells		Tincture catechu
Crystallized acid of lemon	Refined camphor	Hoffman's anodyne liquor	Soluble tartar
			Gum arabic powder
Rhubarb powder	Aromatic spices	Tincture of squills	

Thirty four-ounce square bottles, for

Prepared calomel	Lunar caustic	Granulated tin	Prepared natron
Powdered opium	Comp. cretaceous powder	Red precipitate of mercury	Golden sulphur of antimony
Ipecacuan powder			
Emetic tartar	Essence of cinnamon	White ditto	Caustic alkali
Essence of peppermint		Corros. sublimate of ditto	Guaiacum powder
	Prepared ammonia		Cantharides ditto
Acetic acid	Socotrine aloes powder	White vitriol	Hemlock ditto
Dover's powder		Blue vitriol	Sal ammoniac
Antimonial powder	Gum myrrh ditto	Sugar of lead	Prepared steel
Salt of steel			

Six boxes, for

Peruvian bark bruised	Lint	Diachylon plaster	Blistering plaster
	Tow and leather skins	Gum plaster	Strengthening do.
Senna leaves		Adhesive ditto	Mercurial ditto
Manna			

Seven pots, for

Strong mercurial ointment Brown cerate	Yellow basilicon Opiate confection	Spermaceti ointment	The Edinburgh ditto Conserve of hips

Five small pots, for

Cordial confection Purified opium	Cathartic extract	Citrine ointment	Mercurial pills

Scale and weights, pestle and mortar, spatula and bolus knives, graduated measures, funnels, tyles, syringes, clyster syringes and pipes, panican, tourniquet, probang, &c. &c. Complete with Book of Directions 32 12 0
Second Size 18 10 0
Third Size 14 12 0

PORTABLE CHEST OF CHEMISTRY.

On the top are partitions for forty-six stopper bottles of different sizes, with wide and narrow mouths, for the following articles. Each bottle, independent of a label, has a number engraved upon it, that in case the paper label should be destroyed, the contents of the bottle may be ascertained by the numerical arrangement of the Chemical Guide.

1. Black oxid manganese	phate iron	24. Solut. muriate copper	35. Phosphuret lime
2. Metallic zinc	14. Prussiate potash and iron	25. Sulphuric ether	36. Nitrate copper
3. Metallic nickel	15. Tinct. galls	26. Alkohol	37. Muriate ammonia
4. Carbonate potash	16. Solut. mur. tin	27. Oxalic acid	38. Citric acid
5. Sulphuric acid	17. Sulphuret potass	28. Metallic bismuth	39. Solut. Nitrate mercury
6. Muriatic acid	18. Solut. acetite lead	29. Solut. succinate ammonia	40. Pure strontia
7. Nitric acid	19. Solut. oxalate ammonia	30. Phosphorus	41. Pure barytes
8. Carbonate soda	20. Solut. nitrate lead	31. Oxymuriate potash	42. Muriate cobalt
9. Carbonate ammonia	21. Solut. sulphate manganese	32. Oxymuriate mercury	43. Acetic acid
10. Muriate lime	22. Crys. bor. acid	33. Sulphuret ammonia	44. Tinct. soap
11. Solut. pure potash	23. Solut. nitrate barytes	34. Solut. nitrate silver	45. Ammoniaret of copper
12. Solut. pure ammonia			46. Solut. mur. gold
13. Solution sul-			

In the drawer there are six stopper bottles, for the following articles:

47. Black flux	49. Dried borax	phosphorus	&c. &c.
48. White flux	50. Glacial acid of	51. Glass of borax,	

Four tin cases for

Turmeric paper	Litmus paper	Brazil paper	Gall paper

Also a drawer for scales and weights, graduated measure, funnel, knives, pestle and mortar, microscope, blow-pipe, and other apparatus for chemical experiments, with a copy of the Chemical Guide.

LARGEST SIZE, COMPLETE £25 10 0
SECOND SIZE, COMPLETE 15 10 0
THIRD SIZE, COMPLETE 10 10 0
FOURTH SIZE, COMPLETE 8 10 0
FIFTH SIZE, COMPLETE 5 10 0

THE MINERALOGICAL CHEST;

CONTAINING

Re-Agents, Implements, &c.

FOR THE

ANALYSIS, OR EXAMINATION OF MINERAL PRODUCTIONS.

FIRST SIZE, COMPLETE.....	£10 10 0
SECOND SIZE, COMPLETE	8 10 0
THIRD SIZE, COMPLETE.....	6 10 0

CHEST OF APPARATUS,

FOR

Chemical Experiments.

CONTAINING A

Japan water bath	Two flasks	Air flask with bent tubes	Glass jar mounted with air cocks and bladder
Table furnace	Glass tube	Set of air jars	Six test glasses
Iron retort and conducting tube	Glass alembic	Set of hydrogen and oxygen apparatus for entertaining experiments	One eudiometer
Three glass retorts	Two funnels		Filter bath, &c.
Two receivers	Assortment of crucibles		£15 8 0
Argand's lamp with brass stand, &c.	Three evaporating dishes		

THE VETERINARY CHEST,

OR GENTLEMAN'S STABLE DISPENSARY.

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.

It contains *one large drawer, with partitions, for*

Cathartic balls	Diuretic balls	Nitre powder	Fœnugreek powder
Strong ditto	Cordial ditto	Flowers of sulphur	Antimony ditto
Worm ditto	Cough ditto	Aniseed powder	Liver of ditto
Alterative ditto	Alterative powders	Liquorice ditto	&c. &c.

Nine bottles in the top part, for

Spirit of wine and camphor	Opodeldoc	sprains	Distilled vinegar, &c.
Spirit of turpentine	Oil of wild thyme	Goulard's extract	
	Embrocation for	Laudanum	

Four tin cases, with partitions, for

Blistering or spavin ointment	Alterative, or grease ointment	Cooling ointment	Mercurial ointm.
		Healing ditto	Digestive ditto, &c.

Six small bottles, for

Corrosive sublimate	Lapis infernalis	Red precipitate, &c.
	Butter of antimony	

From £7. 10s. to £12. 6s. and upwards.

PART I.

THE

DOMESTIC DISPENSATORY.

To form a DOMESTIC DISPENSATORY, the author has selected such Medicines which he judges essentially necessary to furnish the Family Medicine Chest, and with which, (as affording an immediate resource in the sudden attacks of diseases and accidents, in which speedy relief is absolutely necessary to be effectual,) one person at least in every village* should be provided. The advantages of such a provision are too numerous to be detailed. In cases of fits, suffocation, poisons, burns, scalds, &c. its great utility must appear obvious to every person of common sense.

Charity thus bestowed, in alleviating the sickness of

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* Dr. Disney Alexander, in a "Dissertation on the Means of preserving Health," 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 incalcuble 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.

the indigent individual, is, of all others, the most useful and commendable. What satisfaction can, indeed, be equal to that of mitigating the sufferings of our fellow creatures, and still more, in being able to save their lives? To a heart glowing with the true spirit of Christian charity, can any thing possibly be so gratifying as the knowledge of having restored 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.

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* The poor are my best patients, said the immortal Boerhaave, because God is their paymaster.

† 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 the ignorance of the compounder, in which case the sudden death of the unfortunate patient is 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

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 the young men who are 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 arrangement of the first part of this work; and the bottles, &c. are proportioned to the utility and potency of the articles they contain; viz.*

Five Bottles in the Back Part, for

N° 1. Magnesia	N° 4. Tincture of Rhubarb
2. Epsom Salt	5. Cajeput Liniment
3. Castor Oil	

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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, to make use of the old names, or to write his prescription in English. This request will put his professional knowledge to the test; for if he be a man of science he will readily comply with it.

* A description of the different Medicine Chests, kept at the Chemical and Medical Hall, 171, Piccadilly, is given in the last page of the first part of this work.

Five Bottles in the Front Part, for

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

Nine Bottles in the Right Wing, for

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

Nine Bottles in the Left Wing, for

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

Nine small Bottles in a Drawer, for

31. Liquid Laudanum
32. Essence of Peppermint
33. Essence of Cinnamon
34. Prepared Calomel
35. Emetic Tartar
36. Basilic Powder
37. Antimonial Powder
38. Camph. Acetic Acid
39. Tincture for Tooth-ache

Six Pots in a Drawer, for

40. Blistering Plaster
41. Spermaceti Ointment
42. Brown Cerate
43. Yellow Basilicon.
44. Savin Ointment
45. Squill Pill
46. Aperient Pills
47. Lenitive Electuary

Six Drawers in the Front, with Partitions, for

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

Two large Drawers in the Front, for

Pestle and Mortar
Graduated Ounce Measure
Ditto —— Drop ditto
Scales and Weights
Spatula Bolus Knife
Funnel and Tyle
Lavement
A Lavement Bag, with Pipe
A small Male and Female Syringe
A Probang
A Tourniquet

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;—

℞. (Recipe) Take
a aa or ana, of each
ss. the half—as ℥ ss. half an ounce
Cong: (Congius) a gallon
Cochl. (Colchleare) a spoonful.

It may not be superfluous to observe here, that

drugs are retailed 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 the grocer's 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 apothecary's ounce, on the other hand, is greater than the grocer's—the former containing 480 grains, and the latter 437½ 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. By neutralizing acid matter in the stomach it speedily relieves the painful sensation termed *heart-burn*, and forms an aperient medicine, which operates gently on the bowels. It is generally taken from a tea-spoonful to a dessert spoonful 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 acid, 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 prevails.

When acidity is the consequence of debility of the digestive organs, which in adults is generally the case, the beneficial effects of magnesia will be but temporary,

unless combined with an aromatic bitter, as the tincture of ginger and camomile, No. 7, or the 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 than magnesia, 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 that can be administered; but when attended with *looseness*, or what nurses term *griping stools*, the compound cretaceous powder, No. 29, will prove equally efficacious in neutralizing the acidity, and at the same time will restrain the violence of the purging; but 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 dessert spoonful 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 consi-

derable effervescence; but, with the calcined, there should be none.

The magnesia sold in bottles at a most extravagant price, under the name of Henry's Magnesia, is in no respect superior to the calcined magnesia of the Chemical Hall, 171, Piccadilly.

The calcined magnesia, in the quantity of a teaspoonful twice a-day, has been lately much recommended by Mr. Brande and others, as a remedy for the *red* gravel, and for correcting the gouty habit. A few cases of its accumulating in the intestines, to a degree as to occasion death, have been recently published, in the eleventh number of the Monthly Gazette of Health. This effect is to be attributed to its not meeting with a sufficient quantity of acid in the stomach to dissolve it.

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

No. 2. EPSOM SALT.

The *Epsom salt*, although more unpleasant to the palate than the Rochelle, has the advantage of operating 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 not an unpleasant draught.

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.

The Epsom salt, in the dose of one or two drachms once or twice a day, is a very excellent alterative medicine; and, dissolved in water, in the proportion of an ounce or six drachms to a quart, forms a purgative water not inferior to that obtained from many native springs. The solution of an ounce of the Epsom salt in a quart of pure soft water, is a good remedy for those cutaneous eruptions and leprous affections of the skin, commonly termed *land-scurvy*, and for piles, habitual costiveness, indigestion, flatulency, and many constitutional and local affections, frequently succeeds after mercurial and other alteratives had failed. By the addition of two or three grains of salt of steel to the above solution, a *chalybeate aperient water* is formed, which 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 the 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 tartarised kali 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 rhumatism, 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 aperient salt, prepared from the Cheltenham salt, containing an excess of soda, is more efficacious in cases of indigestion, and what are termed bilious complaints, than the Epsom salt, on account of its having the property of neutralizing acidity in the stomach, which the Epsom salt does not possess. The true Cheltenham salt also contains a proportion of steel, and on this account the stomach and intestines are strengthened during its operation instead of being weakened, which in complaints of the liver, attended with general debility, is of great consequence. (See Cheltenham Salt, in the Appendix.)

The demand for the Epsom salt, having greatly increased within the last seven years, the makers of the article have been induced to adulterate it with the common culinary salt and Glauber's salt. The true Epsom salt may be distinguished by becoming more dry on exposure to the atmosphere, while the adulterated is rendered more moist by it.

The new name for the Epsom salt is *Sulphate of Magnesia* (*Sulphas Magnesiæ*).

No. 3. CASTOR OIL.

The oil of the Castor seeds (*palma christi*) in the quantity of 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 country is less nauseous than that prepared in the East or West Indies, sold under the name of cold drawn castor oil. This 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 or 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 heartburn 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. CAJEPUT LINIMENT.

This liniment, the basis of which is the Cajeput Oil, is very efficacious for rheumatism, paralytic affections, sprains, bruises, chilblains, and for dispersing indolent tumours.

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 this liniment will aggravate the mischief.

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.

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 affection of the liver, the stomach, the lungs, or any part which the *cordial* effects of the medicine would aggravate. When cordial astringent 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

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* Many persons, no doubt, have to date their first propensity to dram drinking to the too frequent use of spirituous tinctures, rashly prescribed for hysterical complaints, lowness of spirits, flatulency, &c.

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 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 hypochondriacl 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 plea-

sant 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 to employ it with the view of keeping up the effects of a more active medicine, as the Antimonial Febrifuge Powder, 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 an 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 Ammoniæ Acetatis.*)

No. 11. PAREGORIC ELIXIR.

This elixir (a solution of opium, camphor, flowers of benzoin, and oil of anniseeds in proof spirit) in the dose

of a teaspoonful in a glass of water, two or three times a day, powerfully allays the tickling sensation in the windpipe, attendant on recent cough. In spasmodic asthma, and *chronic* difficulty of breathing, taken with the oxymel of squill, 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 if the cough be attended with fever, this elixir is not a proper remedy; for in either case, its stimulating ingredients may aggravate the affection of the lungs, and produce active inflammation, unless it should excite copious perspiration, an effect which it seldom produces. Pleurisy and consumption of the lungs too frequently follow the injudicious exhibition of medicine of this kind, which are advertised under the imposing names of Balsam of Horehound, Balsam of Honey, &c. &c. 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 Minderer-rus's Spirit, or two grains of ipecacuan powder. (See Cough and Lettuce Lozenge.)

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 of this elixir is *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 effects.

Equal parts of spirit of hartshorn and olive-oil form the volatile liniment, which is much employed as an external remedy for paralytic numbness, chronic rheumatism, diseased joints, and inflammatory sore-throat; but it is not so efficacious as the Cajeput Liniment, noticed page 11.

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 spirits 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-radish 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 Ammoniæ 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-ache, by being applied externally to the part, and relieves the tooth-ache when 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 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 weak æthers.

Good æther should not redden the colour of litmus, nor 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 dessert-

spoonful of Mindererus's 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 suppression 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. ANTIMONIAL 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 is not so efficacious as the emetic tartar or ipecacuan powder, which see.

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, 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 produce the same salutary effects, without reducing the strength of the patient; and for the purpose of exciting and keeping up perspiration, and allaying fever. 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, tartarized 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.

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

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* 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.

those constitutional caries, or decay 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 incrustations. When the gums are spongy or 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-ache.)

Myrrh is esteemed as a *warm* strengthener of the stomach and bowels, and as such has 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 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 or ginger, or camomile tea, is a valuable medicine in weakness and relaxation of the stomach, and decay of constitution, parti-

cularly 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 prove beneficial, by preventing fermentation of vegetable matter, and the consequent production of acidity and flatulence. (See Indigestion.)

The diluted vitriolic acid has also been much extolled as a remedy for vomiting, but in such cases the supercarbonated kali generally 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 or strength 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 ASAFŒTIDA.

This strong solution of asafœtida gum in proof spirit, in the quantity of thirty to fifty drops, in a glass of pennyroyal or peppermintwater, is much and successfully

employed as a remedy for lowness of spirits, hysteric (see Antihysteric 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 coincide 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 hooping-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 TINCT. OF GUAIAC 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 rheumatism 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 and gravel. If this quantity should prove too cold, or produce unpleasant distention of the stomach, two teaspoonfuls of gin, 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. Rosentein 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 Gazette of Health. 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, termed carbonate of kali, is preferred for making the sa-

line 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, 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 intothe 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* (*Subcarbonate Potassæ*); and for the salt, saturated with fixed air, *Carbonate of Potash* (*Potassæ Carbonas.*)

No. 22. CRYSTALLIZED LEMON ACID.

This preparation affords a good substitute for the juice of the lemon when it cannot be obtained fresh, which often happens during a long voyage or journey. A drachm of this acid is equivalent to an ounce and a half of the expressed juice. Equal quantities of the crystallized lemon acid 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. When 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 taken in a much greater quantity than is usually prescribed: indeed, it is better calculated as a common 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-juice, sweetened with sugar, or a scruple of the crystallized lemon acid 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 producede 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 asafœtida, 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 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,

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* 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.

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 sometimes by the decoction of bark.

Ten grains of this preparation, are equal to a drachm of the bark in substance. It is much more pleasant to the palate and stomach, and it 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 account 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, or 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, in people whose bowels are weak and irritable. 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.

In complaints of the stomach, which are generally termed bilious, arising from inactivity of the liver, rhubarb does not operate so efficaciously as the Bengal Antibilious Pills, which not only act on the stomach and intestines, but remove the cause existing in the liver. *(See Aperient Pills, No. 46.)*

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 to which children are subject from redundancy of acidity in the stomach and intestines, and is more safe

and efficacious than the advertised carminitives, 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 or Turkey rhubarb is evidently very superior to that imported from the East Indies, both as a stomachic and aperient.

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 these 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 Epsom salt. (See No. 2.)

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

No. 28. CAMPHORATED POWDER.

This powder, composed of camphor, sugar, and gum arabic, affords a very convenient form for making the camphorated julep, for which camphor is chiefly, if not solely employed in domestic practice. This julep is made in the following manner: rub one drachm of the camphorated powder in a mortar, and add to it, by degrees, one pint of warm (not boiling) water, and then strain the liquor through fine linen.

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 Tartarized 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 breath-

ing, and asthma, a mixture of camphorated julep with oxymel of stramonium, 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 these 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.

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

The last new name for extract of lead is *Liquor 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*

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* 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 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 his life 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. treble the quantity to that given by the mouth should be administered.

In the violent purgings and fever, so often attendant on 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 should be given 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 con-

trary, 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 or purging, 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 soporific 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, and a teaspoonful of the flour of mustard. 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.)

As laudanum is apt to produce costiveness, the state of the bowels should always be attended to during its exhibition. To counteract this effect, the Epsom salt, No. 2, or laxative lavement, No. 97, is the most efficacious. In asthma, particularly in elderly or debilitated subjects, laudanum, in full doses, is a dangerous remedy, and, by weakening the respiratory muscles, and power of expectoration, has destroyed life.

Mr. Battley, in analysing opium, has discovered a component part, to produce the anodyne effect of opium, without disturbing the general health, or disordering the head or stomach, or constipating the bowels. This preparation is termed the *Sedative Liquor of Opium.* It is more efficacious than the article sold under the name of "*Black Drop.*"

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.

Many attempts have been made to account for the effect of a small proportion of opium applied to the stomach in allaying pain in the extremities. The primary moving powers of the body reside in the brain, and the action of this organ is, in a great degree, kept up by the sympathy which exists between it and every part of the body. The sympathy between the stomach and head is by far the greatest; and, consequently, whatever tends to diminish it, will lessen that between the brain and other parts; hence laudanum, by diminishing the sensibility of the stomach, and consequently the sympathy which naturally exists between it and the brain, allays pain in a remote part of the body.—The new name for laudanum is *Tincture of Opium* (*Tinctura Opii.*)

No. 32. ESSENCE OF PEPPERMINT.

This preparation (made by dissolving the oil of peppermint in rectified spirit of wine), 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 herb; which, in consequence of not retaining its flavour in perfection many weeks, is seldom to be procured good. The spirituous peppermint-water may be made by employing brandy in lieu of wa-

ter, 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 such as are nauseous more palatable. The essence is, sometimes, taken alone on sugar, or in a little brandy or water, in cases of flatulence, colicky pains, 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 the 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 or Indigestion.)

In the 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 taken, 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 havock 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 a 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 hydro-sublimed 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 forearm, 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 the 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 that generally prevails, that mercury dispossesses 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 vitriolic 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 hooping-cough, small-pox, measles, inflammatory fevers, foulness of the stomach, and diseases of the lungs (as asthma and wheezing), 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 with which we are acquainted. 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 dose 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 time, 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 dropsical 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 after-

wards divided into three equal parts, and baked. Each nut*, containing twenty grains of Basilic Powder, may be divided into 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 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 Antimonial Wine, equally apply to this medicine. The new name for this preparation is *Antimonial Powder.*

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* These nuts, under the name of Basilic Nuts, may be procured at the Chemical and Medical Hall, 171, Piccadilly.

No. 38. CAMPHORATED ACETIC ACID.

The acetic acid has a great and rapid action on contagious effluvia. Its vapours or exhalations correct the vitiated 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 Thieve's 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 cold 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-ache, 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-aches 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, diminishes its volatility.

No. 39. TINCTURE FOR TOOTH-ACHE.

This composition, applied to the painful tooth by means of lint, generally affords immediate relief, and is no doubt the most efficacious remedy for tooth-ache that has been discovered. Having been first prepared by Mr. Perry (of Farnham) it is sold under the name of

Perry's Essence for Tooth-Ache, or the Farnham Specific.

No. 40. BLISTERING PLASTER.

This plaster, composed of Spanish flies, wax, resin, and oil, 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, is destroyed. The best method of spreading it, is first to warm it at a little distance from the 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 lip salve.

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

No. 42. BROWN CERATE.

This cerate, made of bees'-wax, olive oil, and prepared calamine, having been first recommended by Dr. Turner, is 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 treatment of ulcers, is to abate inflammation by avoiding exercise, and by the application of an emollient poultice of linseed meal, which by promoting a healthy discharge will prove more healing than all the boasted cerates. An ulcer, in a healing state, is neither painful nor attended with an offensive discharge; 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 proper application of a roller, no ointment will succeed in the healing of an ulcer.

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 promoting the digestion of 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 so proper an application for *recent* cuts, burns, or scalds, as the brown cerate.

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 mak-

ing 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 (See Oxymel of Hedge Hyssop).

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. APERIENT PILLS.

This composition is introduced in the place of the Compound Colocynth Pill, on account of being a more active aperient, and much more efficacious in carrying off bile and slime from the liver and intestines. It likewise affords an excellent purgative medicine for headache, arising from a determination of blood to the brain, and especially if the consequence of a suppression of the piles or periodical secretion, which it will often succeed in restoring. It is also a valuable aperient medicine in cases of periodical eruptions of the skin, or those cutaneous complaints which are attributed to foulness of the blood, and in cases of gout. The dose is from two to three pills, which may be taken occasionally.

These pills having been first prescribed by a physician of Bengal in cases of what are termed bilious attacks, are generally sold under the name of the "*Bengal Antibilious Pills.*"

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.

Three species of this bark are 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 exibited, 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 symptons may indicate. When the bark is entirely nauseated from irritability 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 the treatment of diseases that require the use of a strengthening medicine, it has proved more successful. It is also less disageeable to the palate. (See Ague, and Rhatany Root.)

Although the Peruvian bark is termed a *febrifuge* medicine, we are not 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 scrophula, 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 increasing the 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 increase the local mischief, and thereby aggravate cough.

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

cacious, 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 scirrhous 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-hysteric 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. The following drops are not less efficacious in allaying cough than the foregoing mixture.

Take of tartarised antimony wine, three drachms; liquid laudanum, half a drachm: twenty drops to be taken three times a day in a wineglassful of linseed tea, almond emulsion, or barley water. (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 asafœtida, 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 guaiac gum, 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 guaiac gum with the honey, in a glass mortar; then add the other articles 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 ounces: rub the tincture of guaiac gum with the honey, in a glass 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. 72. *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 julep, No. 28, six ounces, then add spirit of sal volatile, No. 13, 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-aches, this is a very valuable remedy.

No. 73. *Absorbent Mixture.*

Take of magnesia, No. 1, one drachm; rhubarb powder, No. 26, 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 flatulence, affecting children: if attended with purging, the following mixture will answer best.

Take of lime-water, two ounces; compound tincture of cardamom 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 asafœtida, 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 to be taken twice or thrice a day. (See Asthma.)

No. 80. *Pills for the 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 Aperient Pills, No. 46.)

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. (See Aperient Pills, No. 46.)

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, fifteen 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. 11. *Emetic Powder.*

Take of ipecacuan powder, No. 23, a scruple; emetic tartar, No. 36, one grain. Mix.

No. 88. *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. 89. *Worm Powder.*

See Basilic Powder, No. 36.

No. 90. *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.

GARGLES.

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 or 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-throat. (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; red 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, tincture 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 to which its importance entitles it, partly through the antipathy of patients, but principally on ac-

count 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.

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.

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 fresh 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.

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* There are several sorts of this instrument; the one with a curved or flexible tube is the most convenient, as it will enable the patient to administer the lavement to himself.

No. 99. *Nutrient Lavement.*

Take of strong beef tea, thickened with hartshorns havings, or arrow root, twelve ounces.

In cases of extreme debility of the body, or when the patient cannot take food by the mouth, through some obstruction in 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 clyster pipes in common use, which should be gently introduced up the rectum. In consequence of the improper mode of exhibiting this composition, a diarrhœa has been produced, which duced 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 liniment is much used for chronic rheumatism, paralytic numbness and stiffness of joints. It is not so efficacious as the Cajeput Liniment, noticed page 11.

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

Take of linseed-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 use; it differs from liniments 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 assuage pain and inflammation, to produce an healthy discharge from ulcers, and often as an external dressing, to retain 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. 48, 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, hooping-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 sooth 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, disolved 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, stoned, 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 cele-

brated *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 occasioned by the long use of mercury. It is also an excellent alterative in scrophula, scirrhous affections of the womb, and cutaneous foulnesses.

INFUSIONS.

When the medicinal virtues of any substancs 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. This 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 caraway 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 caraway 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 their 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. Adults.	Children, from 2 to 4 years.	Proper vehicle, &c.	Effects, &c.	Diseases;—proper for
Æther	30 dps. to 1dm.		cold water	antispasmodic	asthma, cramp, & flatulence
Æthiop's 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		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.

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	inflam. 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.Ant.fire, cutan. foulness
Aromatic confection ..	15 to 20 grains	4 to 8 grains	cinnam. wat. 2 or 3 do.	astringent and cordial	purging, cramp in the stom.
———-species	5 to 10 grains	2 to 3 grains	water, ditto.....	stomachic.....	indigestion, flatulence
Asafœtida emulsion....	4 to 8 drms	2 teasp. fuls	every 3 or 4 hours ..	antispasmodic	hyster.asthma, hoop. cough
———— tincture of ..	30 to 60 drops	8 to12 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, gleets, gravel
———of Peru.....	3 to 10 drops	.....	ditto, ditto	stimulant	flatulence, asthma, gleets
———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
Canella alba, powder of	4 to 8 grains	.....	mint-wa. 3 times a day	stomachic.....	indigestion, flatulence
——— 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

MEDICINES.	DOSES. Adults.	Children, from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases;—proper for
Castor, Russian, powd.of	5 to 10 grains	3 to 5 grains.	camphorated julep,do.	antispasmodic	convul.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, 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, 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	astringent.....	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	[times a day mint-water, 2 or 3	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.....	astringent.....	looseness, &c.
Columbo powder	10 to 20 grains	3 to 5 grains	mint-water,3 ti. a day	stomachic.....	indigestion,chron.looseness
——— tincture of ..	1 to 3 drms.	10 to 20 drops	ditto, ditto....	ditto.....	ditto, ditto
Crab's claws, prepared	15 to 20 grains	5 to 10 grains	do. every 3 or 4 hours	astringent.....	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 astringent..	purging of children

Cream of tartar	1 to 4 drms.	20 to 30 grains	honey every morning	aperient and alterative	inflam. erup. of the skin, &c.
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 [emetic	ditto
Foxglove powder.....	half to 3 grains	.....	ditto [4 times a day	violent purgative add	dropsy
——— tincture of ..	10 to 40 drops	.....	decoct. of liver wt. 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	10 to 20 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 10 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 ditto
Hartshorn, spirit of....	20 to 40 drops	5 to 8 drops	ditto, ditto	stimulant	hysterics, couvul. heartburn
——— burnt prepar.	20 to 40 grains	6 to 10 grains	mint-water, ditto	astringeent	purging, acidity, heartburn
Hoffman's anod. liquor	30 to 40 drops	.....	water, ditto	antispasmodic	nerv. fever, asthma, hysterics
Hemlock, powdered ..	2 to 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 1 drms.	30 to 40 drops	water	ditto, ditto, & vermifu.	ditto ditto, & worms
Jalap powder.....	20 to 30 grains	5 to 10 grains	mint-water	active purgative	costiveness
Jalap, tincture of	2 to 4 drms.	.....	mint-water	active purgative	costiveness
Ipecacuan powder	20 to 30 grains	5 to 10 grains	water	emetic	
——— wine	4 to 8 drms.	2 to 3 drms.	ditto	ditto.....	

EDICINES.	DOSES. Adults.	Children, from 2 to 4 years	Proper Vehicle, &c.	Effects, &c.	Diseases ;—proper for
Iron—*See* Steel.					
Kino gum, tincture of	2 to 3 drms.	15 to 20 drops	mint-wat. 3 or 4 times	astringent	looseness
Lavender, comp. spir. of	30 to 80 drops	10 to 20 drops	water	cordial	fainting, or lowness of spirits
Logwood, decoction of	a wineglassful	1 to 2 ta. sp. fuls	3 or 4 ti. a day [a day	astringent	looseness, dysentery
——— extract of ..	10 to 20 grains	3 to 4 grains	in cinnamon wat. 3 ti.	ditto	ditto, ditto
Madder powder	30 to 60 grains	.....	mint-wat. 2 or 3 times	deobstruent	chlorosis or green sickness
——— extract of	10 to 20 grains	4 to 10 grains	ditto.....ditto	ditto, and tonic	ditto and scrophula
Magnesia	30 to 60 grains	5 to 10 grains	mint-water	absorbent.....	heartburn and acidity
——— calcined	20 to 40 grains	5 to 10 grains	ditto	ditto	ditto, ditto
Manna	3 to 6 drms.	1 to 2 drms.	ditto, or tea	gentle aperient.....	costiveness
Mercurial pill	6 to 12 grains	.....	in pills, twice a day..	alterative	venereal disease
Mercury, calcined	1 to 2 grains	quarter grain	in a pill, ditto	ditto	ditto [ness, &c.
——— with chalk ..	5 to 10 grains	3 to 4 grains	honey, ditto	ditto	scald head, cutaneous foul-
Misletoe powder	20 to 60 grains	8 to 12 grains	mint-water, 3 ti. a day	tonic	epileptic fits
Mithridate	15 to 20 grains	5 to 10 grains	ditto .....ditto....	astringent	purging, dysentery
Musk	5 to 40 grains	2 to 5 grains	ditto.....ditto	antispasmodic	convulsions, locked jaw, &c.
Muriatic acid	10 to 30 drops	6 to 10 drops	water, twice a day ..	alterative	scrophula, cutaneous erupt.
Myrrh powder.	5 to 10 grains	2 to 4 grains	mint-water, ditto	strengthening	green sickness, weakness
—— tincture of.....	1 to 2 drms.	10 to 15 drops	water 2 or 3 ti. a day	ditto	ditto, ditto
—— emulsion	2 to 3 ta. sp. fuls	2 to 3 drms.	2 or 3 times a day ..	ditto, and expectorant	ditto, do. & chronic coughs
Natron, prepared	5 to 10 grains	2 to 3 grains	mint-water, 2 or 3 ti.	alterative	scrophula, heartburn, cancer
Natron super-carbonated	5 to 10 grains	2 to 4 grains	water .... ditto	ditto	ditto, ditto, and vomiting
Nitre powder	5 to 20 grains	2 to 4 grains	barley-water, ditto ..	diuretic and febrifuge	strangury, heat of urine fever
—— sweet spirit of ..	20 to 60 drops	8 to 10 drops	ditto....ditto	ditto....ditto	ditto, ditto, ditto
Nitric acid	12 to 30 drops	4 to 6 drops	water	tonic	diabetes, scrophula

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.instomach,&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 2 grains	in a pill	anodyne	spasms, acute pain, cough
——— syrup of.....	1 to 4 drms.	a teaspoonful	water [a day	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	20 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	indegestion, flatulence, &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.
—— Epsom.....	6 to 8 drms.	2 to 4 drms.	mint-water	purgative	costiveness, &c.
—— Cheltenham.....	4 to 8 drms.	2 to 3 drms.	ditto	ditto	ditto
—— Polychrest.....	1 to 3 drms.	30 to 40 grains	ditto	cooling aperient	feverish heats
—— tasteless.....	6 to 12 drms.	2 to 3 drms.	in gruel or broth....	gentle aperient.....	costiveness, &c.

MEDICINES.	DOSES. Adults.	Children, from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases ;—proper for
Salt of tartar	8 to 10 grains	1 to 4 grains	mint-water	alkaline	heartburn, rickets
—— of wormwood....	8 to 10 grains	1 to 4 grains	ditto	ditto	ditto, ditto
Sarsaparilla powder....	20 to 60 grains	5 to 10 grains	ditto, 2 or 3 times a day	alterative	scrophula, &c.
————-comp. decoct.	3 to 4 ounces	1 to 2 ounces	3 or 4 times a day ..	ditto	ditto
Scammony powder	10 to 15 grains	4 to 5 grains	mint-water	strong purgative	obstinate costiveness
———— comp. ditto	15 to 30 grains	5 to 6 grains	ditto	ditto	ditto
——comp. with calomel	15 to 25 grains	5 to 6 grains	honey	ditto, and vermifuge	ditto, worms, and dropsy
Senna, infusion of.....	2 to 3 ounces	3 to 4 drms.	occasionally	purgative	costiveness and worms
—— tincture of.....	6 to 12 drms.	2 to 3 drms.	water	ditto	ditto, and colic
Soluble tartar	4 to 6 drms.	1 to 2 drms.	mint-water	ditto	ditto, and piles
Spermaceti powder....	1 drachm	20 to 30 grains	honey, 3 or 4 ti. a day	demulcent	recent cough
Spirit, Mindererus's....	half an ounce	1 drachm...	mint-water, ditto	sudorific and cooling	ditto, inflam. fever, pleurisy
——--of vitriol, sweet	20 to 40 drops	6 to 8 drops	ditto .... ditto	antipasm. & carmin.	nervous debility, flatul. &c.
————nitre.....	15 to 30 drops	6 to 8 drops	barley-water.....	diuretic and febrifuge	strangury, gravel, fevers
——, sal ammoniac....	15 to 30 drops	.....	water	stimulant	hysteric and fainting fits
——, sal volatile.....	20 to 30 drops	6 drops	ditto	ditto	ditto ditto
——, sal vol. fœtid....	20 to 40 drops	6 drops	ditto	ditto	ditto ditto
Sponge, burnt.....	20 to 30 grains	10 to 15 grains	honey, twice a day..	alterative	scrophula and wen
——— lozenges of....	... 1 to 3 ...	..... 1	twice a day.....	ditto	wen
Squills, powder of.....	2 to 3 grains	.....	in a pill, twice a day	expectorant & diuretic	dropsy, asth. chron. cough
———, oxymel of.....	2 to 4 drms.	1 drachm ...	mint-water, ditto....	expectorant & diuretic	dropsy, chronic cough, asth.
——— tincture of.....	30 to 40 drops	6 to 10 drops	ditto ....ditto.....	ditto .... ditto ditto	ditto, ditto, ditto
——— lozenges of....	... 3 to 6 ...	... 1 to 2 ...	twice a day	ditto .... ditto	ditto, ditto, ditto
Steel, muriated tinct. of	10 to 30 drops	3 to 6 drops	water, twice a day ..	tonic	indigest. rickets, worms, &c.

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, ditto
——— rust of, prepared	10 to 40 grains	4 to 6 grains	honey, ditto.....	ditto	ditto, ditto, ditto
———red sulphate of ..	3 to 12 drops	1 to 2 drops	water	ditto	ditto, ditto, ditto
Sulphur, flowers of	1 to 2 drms.	20 to 30 grains	honey, once a day ..	alterative & aperient	cutane. fouln. piles, worms
——— milk of	1 to 2 drms.	20 to 30 grains	ditto.... 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	¼ to ½ grain	ditto	emetic	
Tin powder	20 to 40 grains	10 to 15 grains	honey, every morning	vermifuge	worms
Tincture of aloes.....	3 to 6 drms.	1 to 2 drms.	water	purgative	costiveness, worms
———asafœtida	30 to 60 drops	6 to 8 drops	ditto, twice a day ..	antispasmodic	hysterics, asth. hoop. cough
———benzoin	15 to 30 drops	4 to 8 drops	honey, ditto.....	stimulant	flatulence, asthma
———cantharides ..	10 to 30 drops	6 to 8 drops	barley-wat. twi. a day	diuretic	hooping-cough
———cardamoms ..	2 to 4 drms.	half a drachm	camomile-tea, ditto ..	stomachic.....	indigestion, flatulence
———compound do.	2 to 4 drms.	half a drachm	ditto, thrice a day ..	ditto	ditto, ditto
———cascarilla	1 to 3 drms.	10 to 15 drops	water, ditto	ditto	ditto, ditto, gout
———catechu	1 to 2 drms.	15 to 20 drops	mint-water, 3 ti. a day	astringent & stomach.	purgings, relaxation
———columbo.....	1 to 2 drms.	10 to 20 drops	ditto .... ditto	stomachic	indigestion, weakness, &c.
———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
——— gentian	2 to 3 drms.	12 to 30 drops	mint-water, 3 ti. a day	stomachic	indigestion, flatulence
——— guaiacum ...	30 to 60 drops	5 to 6 drops	honey, twice a day ..	stimulant	ditto, gleet, whites, &c.
——— ditto volatile	1 to 3 drms.	.....	water, ditto	stimulant & sudorific	ditto, rheumatism, &c.
——— jalap	2 to 4 drms.	1 drachm...	mint-water	brisk purgative	obstinate costiveness

MEDICINES.	DOSES. Adults.	Children, from 2 to 4 years	Proper Vehicle, &c.	Effects, &c.	Diseases ;—p oper for
Tincture of lavend. comp.	30 to 80 drops	15 to 20 drops	water	cordial	lowness of spirits, fainting
——— myrh	1 to 2 drms.	10 to 15 drops	ditto, twice a day....	strengthening	green sickness, debility, &c.
——— opium	10 to 30 drops	3 to 5 drops	mint-water	anodyne	spasms, acute pains, &c.
——— acetat.	20 to 40 drops	6 to 8 drops	ditto	ditto	ditto, coughs, asthmas, &c.
——— rhatany root	2 to 4 drms.	30 to 40 drops	ditto, three times a day	stomachic	indigestion, relaxation, &c.
——— ditto, comp.	2 to 4 drms.	30 to 40 drops	ditto .... ditto	ditto, and cordial....	ditto ditto
Tobacco, extract of....	2 to 4 grains	½ to 1 grain	pill, twice a day	anodyne	hooping cough
Turpentine, Venice....	10 to 15 grains	.....	honey, ditto	diuretic, &c.....	gleet, fluor albus, gravel
——— spirit of ..	15 to 20 drops	4 to 8 drops	ditto .... ditto	ditto	ditto, gravel, rheumatism
Valerian powder	20 to 30 grains	6 to 8 grains	mint-wat. twice a day	anti-nervous.....	nervous head-ache, &c.
——— tincture of....	1 to 3 drms.	10 to 30 drops	water, thrice a day..	ditto	ditto
——— volatile do.	40 to 80 drops	8 to 12 drops	ditto .... ditto	ditto	lowness of spirits, &c.
Vitriol, acid elixir of ..	8 to 12 drops	4 to 6 drops	camo. tea, twice a day	stomachic.....	indiges. flatulen. relaxation
Vitriolic acid, diluted ..	12 to 20 drops	7 to 10 drops	ditto .... ditto	ditto	ditto, ditto, ditto
Wormwood, conserve of	1 to 2 drms.	½ to 1 drachm	twice a day	ditto, and vermifuge	indigestion, worms, &c.
——— salt of	5 to 8 grains	1 to 4 grains	mint-wat. twice a day	alkaline	heartburn, rickets
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, then 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 cosiderably 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 scrophula and rickets; 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 cardamom 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 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, sliced, 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 disease, 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 important 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 particularized, 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 efficacy in the cure of *acute* diseases than many other elaborate preparations.

ALMOND EMULSION.

Directions for making.—Take of sweet almonds, six drachms; white sugar, two drachms; pure water, one pint: the almonds to be first blanched, by infusing them in boiling water, and afterwards peeling 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, it is the most valuable medicated beverage we possess, and in cases of strangury—inflammations of the lungs, bowels, kidneys, ureters, bladder, and urethra—pleurisy, recent coughs—and pulmonary consumption, is very superior to barley-water or linseed-tea. 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.

RHATANY ROOT.

This root, the produce of Peru, has but lately been introduced into the practice of medicine in this country, although 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 80.

ASARABACCA SNUFF.

This powder (the basis of which is the asarabacca herb) is a most excellent cephalic. A few grains snuffed up the nos eproduces a considerable discharge of mucus from the internal surface and sneezing, by which the most obstinate head-ache, tooth-ache, complaints of the eyes, (paticularly gutta serena, and weakness of sight) and paralytic and other complaints, attended with stupor or drowsiness, have been effectually cured. Geoffroy states, that after snuffing up four or five grains of this powder in an evening, he has found the discharge from the nose to continue for three days together, and this author observes, that it so effectually clears the head and rouses the ener-

gy of the brain, that it has cured palsy of the tongue, and deafness. It is more efficacious in these complaints than the powder sold under the name of cephalic snuff, which is a compound of herbs of little or no medicinal virtue, as an application to the nostrils.

CHELTENHAM SALT.

The salt procured from the Old Spa, at Cheltenham, independent of its purgative property, corrects acidity in the stomach, and in consequence of being slightly impregnated with steel, at the same time strengthens the stomach, and improves the general health. Hence this salt has proved very beneficial in a variety of diseases, especially those arising from bad digestion, which is the source of most of the chronic diseases to which mankind is subject. In cases of chronic enlargement of the liver, and obstruction and debility of this organ, this salt has proved very beneficial; in diseases of the skin, it is also a most valuable medicine. Two drachms of this salt, dissolved in half a pint of water, will operate gently on the bowels. It is customary to continue this dose every morning for a week or fortnight, but the dose should be increased or diminished according to its effects. Two or three evacuations every day during its use is considered sufficient. One remarkable effect of this salt is, that so far from nauseating the stomach (the common effect of other aperient salts), the person, in a few minutes after taking it, feels a sense of hunger.

The great difficulty in obtaining the true Cheltenham salt, induced the author to procure it from Cheltenham, and to make an arrangment with the proprietor of the Old Spa, for a regular supply of it at his Medical Hall, 171, Piccadilly. The article sold in bottles in the form of powder, under the name of "True Cheltenham Salt," is a spurious preparation, made by drying a mixture of Glauber and Epsom salt. This preparation is very different to the true Cheltenham salt, although the proprietors pretend to make it from an analysis of the Cheltenham water; for in the first place it is a neutral salt, instead of being a sub-sulphate, and of course does not possess the property of neutralizing acidity in the stomach. It is also free from any combination of steel, and therefore, instead of strengthening the stomach, tends to debilitate that organ; and to weakly subjects, who might have received from the true Cheltenham salt the most essential benefit, it has done irreparable injury. Many again sell the small crystals of the Glauber for the true Cheltenham salt, the property of which is very different to the Cheltenham salt. The true Cheltenham salt may be distinguished from the spurious kinds by the largeness

of its crystals, (resembling more the prepared soda than Glauber salt), by a slight effervescence which ensues on the addition of a few drops of diluted vitiolic acid to a solution in water, and on a peculiar smell, resembling that of new sponge.

LETTUCE LOZENGE.

This combination of the inspissated milky juice of the lettuce, tolu, gum arabic, &c. Dr. Andrew Duncan, professor of medicine at Edingburgh, highly extols as a remedy for catarrhal and consumptive cough. One lozenge gradually dissolved in the mouth, and swallowed, powerfully allays the tickling sensation in the wind-pipe, which in recent cold, occasions cough. It also promotes expectoration and perspiration, and is unquestionably a more pleasant and efficacious remedy for recent or winter cough, than the lozenges of tolu and ipecacuan.

OXYMEL OF THE HEDGE HYSSOP.

This preparation of the hedge hyssop has lately been found very beneficial in pulmonary consumption. The hedge hyssop possesses the peculiar property of allaying morbid irritation, quieting the circulation, and at the same time promotes digestion, and keeps up a regular discharge from the bowels. The oxymel also facilitates expectoration and allays cough, and has effected more in consumption of the lungs, asthma, and winter cough, than any other medicine. See treatment of Consumption and Asthma.

THE IGNITOR.

This little apparatus is particularly useful to light a candle in the night, in cases of sudden attack of disease or alarm. It is free from the unpleasant smell of phosphorus or brimstone. To produce a flame it is only necessary to dip the coloured end of one of the matches which accompany it in the bottle, and on taking it out, the end will be found in a blaze, with which a candle may be lighted. This apparatus, which may be obtained for 7s. 6d. should be kept by every family. It is free from danger, and when the fluid is exhausted, may be replenished at the expence of a penny.

INDIAN ARROW ROOT.

The Indian arrow root has, of late years, been cultivated in considerable quantity in the East and West Indies. The following 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 caraway 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 caraway 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 particular that adopted it, has now two children living, in perfect good health, after having lost five, either by convulsions or bowel complaints.

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* 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 substituted 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.

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 should be precluded from its use, I have directed it to be retailed at *four shillings* a pound, at the Chemical and Medical Hall, 171, Piccadilly; 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 rapidity than farinaceous substances or jellies. In cases of indigestion, chronic eruptions of the skin, scrophula, 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 Dentrifice, 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-ache, have not experienced 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 fever, 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 now 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-ache. 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 renders 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 I have no hesitation in recommending its adoption in preference to that of wood.

It is become nccessary 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, it 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 dentrifice. 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 dentrifice 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-ache, 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.†

For disengaging the muriatic acid gas, citizen Guyton Morveau gives the following directions: "Put into the middle of

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* 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 publication: 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.

the place which is to be purified, a chafing-dish, on which a pan 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 and 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 thereby 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 arise 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 some days after the contagion is supposed to be destroyed. If the vapour irritate the lungs, so as to 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 should be particularly observed that no wood nor metal 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, so 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 generally suppose. 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 made 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 indispensably 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.

5thly, Attention ought to be paid to the *temperature* of the

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* 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, and 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.

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 ungrateful to the feelings of the sick, but by its debilitating property, may increase the virulence, and extend the ravages of contagion.

6thly, When a person dies of 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 desired to proceed to interment so soon 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 clearly 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.

7thly, 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 fumigated.

8thly, 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.*

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* 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. 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, Priestly, 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.

9thly, The establishment of fever wards, and houses of recovery, for the reception of persons attacked with infectious fevers, are charities which reflect immortal honour on their founders, and are 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 effluvium 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 predisposed* 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 Mezeray, as quoted by the Hon. 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 of destroying life, 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

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* 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 lay down, and say they know they shall die; and, what is very remarkable, I have never yet known one recover after having, in such a manner given himself up."

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 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 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. (See Flowers of Sulphur.)

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.

When corrosive sublimate of mercury is taken in too great

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* 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 dose of ipecacuan, will also succeed in expelling it, should it be of the vegetable kind.

a quantity, Dr. Orfila, of Paris, advises the white of eggs to be largely administered. On the first appearance of the symptoms, he observes the patient should swallow several glasses of the white of eggs mixed with water. If the poison be arsenic, the first object he contends, is to promote vomiting; for this purpose a large quantity of the decoction of linseed, or milk should be taken, and vomiting excited by irritating the top of the gullet by a feather or finger. An ingenious article on this important subject, from Dr. Orfila, is published in the Seventh No. of the Monthly Gazette of Health.

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 exibition 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 will be 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 eva-

cuation 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 upon, but the complete removal of the injured part by the knife or actual cautery. 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 that 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 dependence 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 can 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.

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* 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."

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, in 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 in 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 an 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 it 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 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

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

† 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

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 blood, by friction with warm flannels, and by placing bladders, filled 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

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

degree of cold produced by their evaporation* counteracting the effects of friction.

The restoration of the important functions of the lungs †, should 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, so soon as their elevation indicates a distension of the lungs, and this alternate inflation 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 its 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 up a quantity of warm water, with a handful of common salt dissolved in it, which may be done with a clyster pipe and 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§.

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* 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 looses 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 air 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.

§ 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 few hours.

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 salt 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.

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 undoubtedly lost for want of the latter.

The means recommended for the recovery of drowned people are equally applicable to a number of cases where the

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* 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 adjuged 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!!

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 or 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 are 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 *unusually* flushed or bloated, the breathing *laborious*, the eyes *fixed*, and the blood-vessels *distended*, the danger of apoplexy may be apprehended; to avert which, it will be necessary to extract blood from the *temporal artery*, to put the feet in *warm water*, and administer an *acrid* clyster of common salt and gruel, and to use every means to *provoke vomiting*.* Throughout the whole paroxysm the application of vinegar, spirit of

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* 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

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 effect of the dram, in this situation of distress, accelerates 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 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, nor put 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 ob-

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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.

tained. For this purpose, an instrument is generally employed called a *tourniquet;* which, when skilfully applied, never fails immediately to suppress the bleeding.

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.

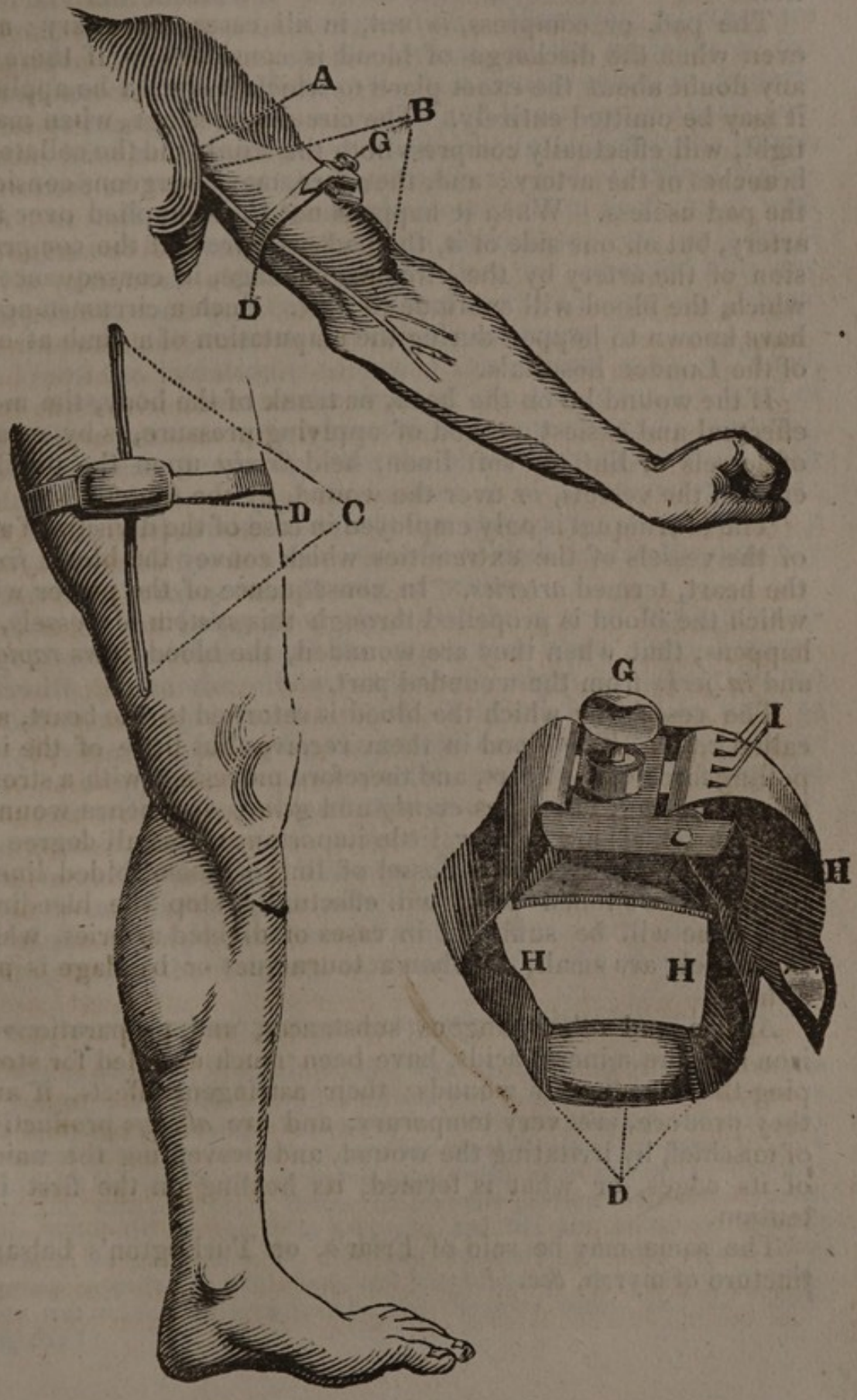
The artery of the upper extremity, or arm, proceeds from the trunk at A, in the following manner: the trunk passes into the arm-pit, *deeply situated*, then proceeds along the inward part of the arm *obliquely* towards the fore-part of the joint of the elbow, and here divides into three branches; in this course to 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 D, 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, that is the place which surgeons fix on for the application 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 operations below the knee joint; but, *beyond* this part, compression must not be depended upon, for immediately below the joint 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 as 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,

THE TOURNIQUET APPLIED TO THE UPPER ARM AND THIGH.



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 on 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 of the extremities 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 jerks* 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; for it is a well-established fact, that the *speedy* extraction of a few 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 bandage 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 vein 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

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* 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!!

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 rupture, 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 from the loss of blood, that it should only be performed by, or at least with the consent of, a medical practitioner; for, as an old physician justly observes, "it is taking away what medicine cannot give." In internal bruises, occasioned by severe falls, 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 operation 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, under the head of Questions to Patients, Part II.)

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 blood 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

* "The blood is the life of man;" that is, this fluid contains one of the principles of vitality, oxygene, and distributes nourishment to every part of the body.

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 becoming 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 accident, 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 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 with the view of bringing any foreign body from the stomach, without the sanction of an *experienced* physician or surgeon, unless it is likely, from its chemical powers, to injure the stomach.

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 of 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 windwipe, 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 contiguous 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 be 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 scissars, 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.

The brain is clearly the seat of the intellectual operations, and of sensation, and hence the mind and body reciprocally act on each other. The mind is only to be traced by its operations and effects, and that these may not be carried so far as to injure the body, we find this invisible principle possessed of a peculiar power (denominated Reason), as a guide for its movements and conduct. The influence of this embodied principle on the body is often very great, some of its passions exciting, and others depressing, the vital energy of the system. If man be 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? It must appear obvious, that those who undertake the important office of visiting the sick, and prescribing for the cure of their maladies, should cultivate an

acquaintance with the anatomy of the mind, as well as of the body.

Of the influence of the mind on the body, some further remarks are given in the second part of this work, under the head of "Introduction," where the causes of dreams, delirium, insanity, spectral delusions, are likewise noticed.

OF THE PASSIONS OF THE MIND.

The passions may be considered as 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 may be divided into two kinds, namely, the exciting or enlivening, and the depressing. 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 derangement. 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 otherwise 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 great 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 many chronic maladies connected with obstruction, or nervous debility. The bursting of abscesses, in critical situations, has oftened been hastened by it.

HOPE

Is a modification of joy; or, rather, joy by anticipation. It is real joy without alloy, which often happens when the actual event or good, which gives rise to it, arrives. 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 controul 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 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 flush'd 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
> Toy'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 remedy: 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 decribed by Shakspeare, when he says—

> She never told her love,
> But let conceaiment, 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 overwhelm'd 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,

Which has accordingly been termed a short-liv'd madness, and is frequently fatal by occasioning a determination of blood to the head, and thus inducing apoplexy. This effect of it is thus beautifully described by Armstrong,

> 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,
> Desp'rate, and arm'd with more than human strength.
> But he whom anger stings, drops, if he dies,
> At once, and rushes apoplectic 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 indulgence of sleep allowed. 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 lunacy, and in its highest fit of terror to prove even fatal. Bashfulness, 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 circulatiou of the surface, gives rise to various cutaneous 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 the Holy Writ. That penitent passion of conscious guilt, SHAME, follows 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 pourtrays the dreadful impetuosity of anger in the first-born human being, who affords an example of wrath of the most implacable nature—the wrath of one brother persecuting another unto murder, preceded by all the grovelling suspicions of superior merit, expressed in a *sullen* or a *fallen countenance;* and avenged by supreme Justice, in an appeal to the heart, which almost chills 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;* still further degenerating into *avarice*, in the character of one son; and pathetically contrasted in the generosity of an injured brother, and after the emotion 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 chaste union of strong and tender passions is not perhaps exceeded by any on record.

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 to the mind 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 of 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 youth. 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.

ON 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 delicate 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 habit admits a greater latitude in the use of a stimulating diet than any other, and both seasoning and stimulating drink will prove less hurtful to such a constitution; the chief point is to guard against corpulency. Where a dry habit prevails, young meat, 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

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* For the diet of infancy—see Feeding of Children.

climates, and here they are generally used to excess. In warm climates, though their temporary use may be called for at intervals the practice should not be indulged. (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 the diet recommended for youth adopted; thus broth and liquid food should mostly be used; and all nourishment taken of an easy digestion, with a moderate use of seasoning. The appetite is more languid, and the machine requires to be stimulated. Well-fermented liquors, especially wine, are also proper, for the systen must be invigorated and supported, unless the subject be of a full habit, or disposed to apoplexy. (See Prevention of Apoplexy.)

OF DIET UNDER DISEASE.

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

LOW OR FEVER DIET

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

Drink.—Barley-water, acidulated with lemon or orange-whey; 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 cider or perry; sherry, Port, or claret wine; rum or brandy, diluted with water.

The properties of the various articles of diet, are noticed under their respective heads, in the author's Dictionary of Domestic Medicine.

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 its 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 fulness 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 or use drink properly, is a subject of the first importance, and in 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 particnlar time also 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 limit, by stating that the proportion of liquid should be double to the proportion of 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 the 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 for solid food, which, unless very dry and compact, seldom excites much inclination for liquids. Hence, it is more from their pleasing 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 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 requires consideration. 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 vigour 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 cordial, 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 distention 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 consequence 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 diluent 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 too 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 ablution of the different parts of the body, as the head, face, and mouth, also the hands and feet, is necessary at least once a day; but the propriety of washing the whole surface of the body oftener than once a week, either with warm or cold water, is much to be questioned. The perspirable matter of the body is not, as was formerly supposed, an excrementitious secretion, but a very pure watery fluid, for the purpose of keeping up an evaporation for regulating the temperature of the body. (See Use of Perspiration in the Introduction to the second part of this work.) Much mischief is often done by the exposure of the body during general ablution, and many lives are annually destroyed by the consequences. After the age of fifty, the warm bath once a fortnight is very beneficial to health, and an excellent preventive of organic disease of the stomach, liver, or intestines, which is apt to take place after that period of life. (See Baths, in the author's Medical Dictionary.) The mouth should be rinsed out after every meal, as the fibres of meat are apt to lodge about the teeth, and in consequence of the heat of the parts, rapidly putrefy, and in this state it will act on the teeth and gums, so as to occassion caries and tooth-ache. The breath also, from the same cause, is apt to acquire a disagreable 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 of the tooth-ache, &c. 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 nature, as the areca charcoal, to separate 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 gum. (See Prepared Charcoal, and Tooth-ache.) 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 disagreable smell. They should, therefore, be frequently bathed.

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.

In cases of typhus or putrid fevers, general ablution of the body with cold water or vinegar is certainly very beneficial, and most grateful to the feelings of the patient, and also the change of linen; but by washing the rooms of invalids, and often by changing the bed-clothes, considerable injury is frequently done, particularly in cases of eruptive fevers, inflammatory affections of the head, throat, lungs or bowels, and rheumatism. The object of ablution is to remove offensive matter that may either be absorbed from the surface of the body, or contaminate the air. The perspiration of the body is an inoffensive secretion, and the dirt of floor may be as effectually removed by brush without the aid of water as with it. In a hot climate, the use of water may, however, prove useful, by cooling the atmosphere of the chamber.

TEMPERANCE

Is the moderate use and enjoyment both of the necessaries 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 this respect to the boasted reason of man. Temperance is espe-

cially 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,
60—	Milk and water	Serenity of Mind, Reputation, long life, and
50—	Small Beer	Happiness.
40—	Cider and Perry	Cheerfulness.
30—	Wine	Strength, and
20—	Porter	Nourishment—when taken only at Meals, and in moderate
10—	Strong Beer	quantities.

INTEMPERANCE.

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

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.*

Of late years the causes of this 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 method of nursing has been wrong, needs no other proof than the frequent miscarriages which have attended it, the death of many, and the ill health of those that have survived. 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 being guided by instinct, or the dictates of nature, seldom perish until they have run their natural course, while man, the child of art and refinement, proud of his superior mental attainments, is very 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 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

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* The average of the bills of mortality for ten successive years, in London and its environs, demonstrates that more than one half of 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.

† 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 arrived to the limited period of his existence.

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

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 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 called Watery Head. Shoes and stockings are likewise *unnecessary* incumbrances; the latter keep the legs wet and dirty, if they are not changed two or three times a day, and the former too often

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* 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 notwithstanding 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, so as 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 will support the back bone.

‡ It sometimes happens that a portion of intestine protrudes at the navel, through violent crying; in this case, a plaster of diachylon of the size of a dollar may be applied to the part, and over it a *soft broad* piece of thin flannel, in the form of a roller. If the bandage be applied tight, it may not only hurt the bowels, but produce rupture at the lower part of the belly.

cramp 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.—Tape 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 quanity 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 injury, 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 †;

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* 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.

† 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 (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 case 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.

Another frequent obstacle to suckling is inflammation of the gland of the breast, to which young mothers are very subject. The object in the treatment of this often very painful affection is to prevent suppuration or

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 precedes 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 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-distention 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 sto-

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the formation of matter, by the application of leeches to the part, and the discutient lotion, No. 102 (without camphor), and the occasional use of an aperient dose of jalap or castor oil. The milk should be drawn off very gently by the nurse or child. In consequence of the increased determination of blood to the breast, and the irritation kept up in it by its office of secreting milk, the inflammation generally advances to suppuration in spite of all our efforts to prevent it. When this is the case, a poultice of linseed powder should be applied and continued till the part has healed. After the abscess has broken, the inflamed skin may be washed with spirit of wine or brandy twice a day, and the ulcer or opening covered with lint. Ointment is seldom necessary.

* A lady of respectability in the city of London had nearly lost her infant, through the nurse giving it, soon after it was born, a tablespoonful 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.

mach be frequently supplied with food, or be overloaded, it is impossible the whole can be properly digested; and hence, by undergoing 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 under the head of arrow root is likewise an excellent combination for weakly children. (See Arrow Root.) The other part of childrens' 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,

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* When this acid corruption of food predominates, which is obvious from *crude*, *white*, or *green* stools, gripes and purging, 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 will prove more serviceable than magnesia alone.

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 the 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, it will confirm her health, if weakly, it will, in most cases, restore her *. It need be no confinement to her, or abridg-

* 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

ment 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 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

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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.

* 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.)

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 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."

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* 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

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 litle bread, and thin broth or milk for her breakfast and supper, and her drink should not be stronger than good ale or porter.

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.

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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.

* 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.

As soon as the child has cut two teeth, it may be used to the inside of roasted meat, which it will be more fond of than confectionary or pastry wares, the latter of which 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 purging, 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 Goscoign 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 encompassing 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 its diet, grow worse, and 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 most 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 distention 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 asafœtida, and other *stimulating* antispasmodics, so frequently prescribed in these 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 great degree of irritability of the nervous system. Convulsions originating from a variety of causes, and, of course, requiring different treatment, a practitioner of skill and experience should always be consulted on their *first appearance*. When they are occasioned by seething, 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 watery head, blisters to the head and feet, the application of leeches to the temples, and an active purgative, are necessary. If the forehead be hot, cold water should be applied to the head by means of a napkin three or four times a day; this, both in convulsions and inward fits, is an important remedy.

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.

Children who 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.*

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 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 ipecacuana 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 con-

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* 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.

‡ 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.

stant 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* 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.

SWELLING OF THE BREASTS OF INFANTS.

A slight distention of the breasts of new-born infants, from a 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 old fine 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

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* Very superficial scarrifications of the gums, when they are swollen, or very hot, often afford immediate relief, and quiet the whole system.

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, a leech to the eyelid, the basilic powder, No. 36, or calomel, No. 34, and the continued application of a lotion made by dissolving two grains of white vitriol, and half a grain of blue 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 old 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, 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 patches. 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 fœtal 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 diseasc 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 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

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* The evaporation 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.

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.

PART THE SECOND.

INTRODUCTION.

In the Domestic 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 possess the means of depressing and invigorating the vital powers; of allaying pain and morbid irritation; of diminishing and increasing the action of the heart, and lessening the quantity of blood; 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; of emptying the stomach and intestines, &c. But to employ these remedies with success, or even with satisfaction to ourselves, a knowledge of the laws of animal life, and of the powers which regulate the system, and direct its movements, is requisite. Without such knowledge it is evident we shall not be able to discover the seat and nature of internal disease, or clear indications of cure. 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 necessary as to the external matter, or machine, with which this mind is connected. 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 connexion with each other.

For the purpose of imparting this information, it will be necessary to take 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.

About six years ago the author published a new System of Physic, under the title of the *Reecean Pandect of Medicine*, founded upon the Chemistry of the human body. It is the offspring of long experience, serious reflection, and numerous and repeated experiments in an extensive course of practice.

The leading principle with which he set out, and which he believes will be conceded by every philosopher is, that heat is the great exciting cause of animal life. This is proved by the analogy of vegetation, for, when diminished to a certain degree, the vegetable creation droops, languishes, and dies. It is by heat the seed is reared into the stem, blossoms, and produces fruit. Nor in animal life is its power less extensive. By heat incubation proceeds, the impregnated ovum is animated, formed into structure, and the animal frame completed in all its functions. What an incomplete existence does the dormouse and other animals present in winter, when the genial influence of summer no longer animates their frames. View also the difference which the natives of the warm and frigid regions present. See the vivacity, life, and gay manners of the former, compared with the cold inanimate apathy of the latter. The former, warm in their passions and affections, feel alive at every pore; the latter are only roused by strong impulses, and betray marks of torpor, insensibility, and the incomplete energies of life. So much indeed is the principle of life connected with the possession of it, that we find nature in cold climates has studiously provided for its preservation, in order that the natural heat of animals may not be too rapidly conducted from it by the atmosphere. Thus a thick fleece or coat covers them in the winter season, the thickness of which is in proportion to the degree of cold the climate possesses. In the same manner when this principle exists towards the equator, in the other extreme the woolly thick covering of the same animals is changed for one of thin hair, to allow on the contrary the escape of superabundant heat. The importance then of this principle as identifying itself with life throughout all creation, being evident, the question that naturally arises is, whence is the source from which, in the animal machine, it is derived and perpetuated.

The brain is the seat of sensation and volition, and, by a variety of experiments, is clearly concerned in the production of animal heat. If the communication of a part with the brain be cut off by dividing the principal nerves, the heat is considerably diminished, and, by tying the principal artery so as to prevent the flow of blood through it, the same effect will follow, which shew that the evolution of heat is nependent on both the nerves and arterial blood. Analogy also confirms this, and demonstrates that heat is the effect of decomposition, and consequently is the result of more than one power. This we see exemplified in fire, where oxygen is necessary to combustion. In explaining then the origin of animal heat, it may be observed, that oxygen, the principle of combustion, is supplied from the atmosphere by the lungs during respiration, and that this oxygen combining with the red particles of the blood, imparts to it its brightness and florid colour. That the blood thus oxygenated, or having received the principle of heat, is propelled by the heat through the arterial system to every part of the body. It is in its passage through these vessels it parts with its oxygen, when it is returned again to the heart by another series of vessels termed veins, to be transmitted through the lungs, for the purpose of being reoxygenated. Hence the blood in the veins and arteries exhibit different appearances, that of the latter being bright and florid, while the former is of a dark colour, in consequence of the absence of oxygen.

By the brain is produced a subtle fluid * which is conducted to every part of the body, by means of branches termed nerves. These filaments of the brain take the course of the arteries or

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* This subtle 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 a morbid state of the earth, is probably the cause of some diseases which are attributed to contagion.

vessels containing the oxygenated blood. By the union which takes place between the subtle or nervous fluid, and the oxygen of the blood, a species of animal combustion is produced; for the nerves, as appendages of the brain, are positively electrified, while the arterial blood, in consequence of the oxygen it holds, is negatively so. Betwixt them, therefore, it is highly probable a disengagement of caloric takes place; the nervous or Galvanic fluid and the oxygen thus coming into contact, a general disengagement of heat occurs, and the principle of vitality is thus conveyed to every part. This abundantly accounts for the different degrees of caloric which exists in different parts, according to the size of the nerves and arteries, or according as the apparatus may be interrupted in furnishing the supply by the division or compression of the nerves and arteries. This is strongly proved by what we observe in paralytic limbs, where the circulation is languid from compression of the brain, and the venous blood, contrary to what is usual, displays a very florid appearance, from the circumstance of the nerves not being sufficiently electrified to consum the oxygen of the arterial blood, and of the diminished degree of vitality of the part. In examining the blood contained in the arteries of the fœtus, it presents an appearance unusually dark, when it has not breathed or drawn a supply of oxygen from the atmosphere, and though born alive, and not separated from the mother, still it wants the necessary vitality, and generally goes off in convulsions, if there be any impediment to its receiving from the air, an immediate supply of this essential principle. During the fœtal state, its dependence for heat is on the mother, and it possesses of itself no powers to continue the necessary calorification or disengagement of heat, which its system requires for the purpose of its existence. In the same manner, the human worm depends on the body to which it is attached for this vital principle heat, being furnished with no lungs or organ, to contribute a supply itself; and the moment it is removed from the body, it expires. Its existence may, however, be continued some time, if it be received into water of the same temperature of the human body.

But, independent of the electrical powers of the brain, this complicated organ possesses sentient and intellectual functions. From it the moving and feeling powers emanate by means of the nerves.

From the front of the brain arise two nerves directed to each eye, for the purpose of vision. In the same manner others are given out for distribution to the ears, and produce the sense of hearing. The nostrils are supplied with branches for smell;

and the tongue is equally gifted with the same structure, to excite the sensation of taste. The skin, and extremities of the hands and feet, are indebted for their sense of touch to a similar supply. Thus every part of the body receives its sentient powers from the brain, although the organs possess distinct offices. It is by means of the nerves that the sympathy between the brain and the other parts of the body, and different organs, is preserved. For the internal parts of the system the brain gives out a special nerve or branch, termed the sympathetic nerve. From this branch, arise first, branches to the neck, and from it the cardiac and pulmonary nerves arise, thus supplying the heart and lungs; it next passes through the diaphragm, distributing its filaments in its progress, and gives out branches to the whole abdominal viscera, or organs; thence it is directed to the pelvis and parts of generation. The sympathy existing between the brain and other parts is often peculiar, and varies in its degree, being much greater with certain parts than others. Thus a remarkable degree of sympathy exists betwixt it and the stomach, and whatever disturbs the one, has frequently an immediate influence on the other. In proof it may be instanced, compression of the brain from any cause excites nausea and vomiting, and vice versa, a disordered state of stomach generally produces headache, of the most distressing kind. Nor does there exist less sympathy between the genital system and the brain. Hence that state of mind produced by diseases of this part which induces hypochondriasis, madness, and often suicide. The sympathy also in the female betwixt the womb and the stomach, is no less worthy of notice. During pregnancy, the stomach participates in every sensation of the former organ: hence sickness, nausea, and vomiting, are often the first marks of this condition. When disease of any kind exists in the womb, the same sympathetic irritation appears to attend its progress, and often forms a clue to the seat of the disease where it is not clearly perceptible. Hence it is highly probable, from the existence of this sympathy between the brain and particular organs in such a high degree, that the action of the brain is, in a great measure, kept up by it. Hence a stimulus applied to the stomach revives the energy of the whole system, and pain produced in the most remote parts of the body will keep up irritation in the brain, so as to suspend the natural operation of sleep. On the same principle, medicines which diminish nervous energy, applied to the stomach, produce sleep, and allays pain in a remote part of the body, by quieting the action of the brain. It is in this way we may explain the operation of opium, which, acting solely on the stomach, dimi-

nishes the sympathy between it and the brain, and, of course, if the energy of the brain be diminished, the sympathy between it and the other parts of the body will be proportionately lessened. Thus the operation and energy of the brain is increased by stimulating the stomach, and by morbid irritation of any part of the body, and thus sleep is induced, and pain allayed, even in a remote part of the body, by diminishing the sympathy between the brain and stomach; for it is too ridiculous to suppose, that a medicine is conveyed to the affected part, in order to produce the desired effect.

The brain is also the seat of all the intellectual operations: and hence the mind and body we find reciprocally act on each other. It is a subject of the highest admiration to find the powers of conception, reflection, and the effect of the passions, all influencing the body, and arising as the operation of an unseen principle embodied in matter, and yet so embodied as not to be capable of detection, or apparent visible existence, by the most minute research we can make. The mind, therefore, is only to be traced by its effects, and that these effects may not be carried too far to the injury of the body, or the corporeal part, we find this immaterial principle possessed of a peculiar property, or power, as the guidance of the whole, which, under the name of reason, is placed as a guide for our movements and conduct. Such a check is necessary, from the strong influence of the passions in their operation on the system; for instance, anger in excess, which constitues a temporary madness, is capable of the most dreadful consequences. Fear, in the other extreme, without this guardian of our conduct, renders us incapable of acting at all. Grief depresses every bodily exertion, and injures the regular operation of the different functions. Nor are even the exhilarating passions less dangerous in excess. Joy suddenly excited by unlooked-for events, has produced strong determination to the head, and death; and love, when too unhappy, by absorbing every other feeling, has been attended with the same dreadful effects. Reason, then, and its modification by judgment, are placed to regulate the passions, and preserve them in due subjection, like the boisterous gales which are apt to overset the bark in its passage through life. By the mind, therefore, the system is most materially affected. By stimulating and rousing the electrical powers of the brain, it naturally produces an increase of heat, while the mild and gratifying passions of hope and confidence acting differently from the others, sooth and guard that inordinate action of the functions of the body, which the others are apt to create. Under disease, the state of the passions is, therefore, a subject of high importance, and requires, on the part of the physician, as much attention as the state of

the body. Nothing tends so much to aggravate the symtoms of a malady, or to keep up the morbid irritation of the system, as the influence of the passions, which are, unfortunately, too little in the power of the healing art. "Who can administer to a mind diseased," is proverbial, and, at least, shews the difficulty of the subject.

Connected with the operation of the mind is that peculiar faculty we possess, the indulgence of sleep; an indulgence necessary both for the mind and body, forming, in the language of the poet, "Tired Nature's sweet restorer." By this most remarkable phenomenon which belongs to the animal system, in a moderate degree the mind and the body are benefited. Brutes require less of this indulgence than man, from their mental exertions not being equal. When this faculty is fully enjoyed, and sleep is completely sound, the intellectual functions are entirely suspended. But if the irritability of the brain is increased, the operation of the mind is kept up in consequence of its connexion with this organ, and dreams or vagaries of the imagination arise, which are only the action of the mental powers without the guidance of reason. Hence the absurd and ridiculous ideas they present when awake, though wearing the semblance of rationality during the moments of their occurrence. Of these may be mentioned, holding conversation with the dead, and such other strange imaginations, &c. Morbid irritation of the brain, and irregular or partially suspended action of the intellectual powers not only give rise to dreams, but is also productive of delirium, of insanity, and of spectral delusions often when awake, the brain being only partially affected, the person may not be sensible at the time that he is under the influence of disease. Having taken a cursory view of the animating, vitalizing, and rational principles of the body, I next proceed to consider the means of its nourishment.

The first organic parts subservient to this end are the teeth, which prepare the food for digestion. During the operation of mastication, the aliment is not only divided, but well blended with a fluid principally secreted by the salivary glands, the action of which is kept up by the motion of the jaw during the process of chewing, in consequence of their being situated over the joints of the lower jaw. The food thus prepared is conveyed to the stomach, where it is agitated as in a churn, and mixed with the Gastric juice*, which pos-

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The juice termed Gastric, is supposed to be a secretion from the stomach: but I am of opinion, that there is no other secretion from the stomach but a slimy matter, to protect its interal surface and that the fluid termed the Gastric juice, is secreted by the salivary glands.

sesses such high solvent powers as to dissolve bone, and even copper and silver, according to some experiments which have lately been made.

The food thus mixed, forms a slimy mass, termed *chyme*, and, as it passes from the stomach into the intestines, in its next receptacle, there is seperated from it a fluid of a milky appearance, termed chyle, and nature has studiously provided that this chyle, or nourishing part of the food, should be conveyed to the circulation for the support of the body. The intestines are accordingly furnished with absorbent vessels, termed lacteals, the mouths of which are spread every-where over the internal surface, for the purpose of taking up the nutrient part of the digested aliment. The length of the intestines of man is no less than nine times the length of his body, that a great and sufficient surface may be exposed for the action of the absorbent vessels; and this is further increased by numerous folds of the internal coat, which detain also the fluid in its passage for the same wise purpose; thus the intestines, from their situation, their length, their different diameters, thickness, and folds, may be compared not unaptly to the root of a vegetable, which spreads its fibres to a great extent, and in different directions, to draw nourishment from every part of the surrounding soil. This comparison shews the importance of taking proper food, and of its being properly digested or assimilated, for the health and strength of a vegetable depend on the quality of the soil from whence it draws its support. If a weak or unhealthy shrub be removed from a bad to a well manured soil, it will become healthy and strong; the same with the animal body, if his food be good, and the stomach perform its office, the body will be preserved in health, provided he does not indulge in excess. But let the food be ever so good of its kind, if it be not properly digested, the chyle will be of a bad quality, and not in sufficient quantity, the consequence of which will be, the unassimilated food will undergo decomposition, and carbonic gas will be disengaged, and acidity formed; the general health will sooner or later be disturbed, and some local disease will probably ensue.

In its passage through the intestines, the prepared food, received from the stomach, consists of two parts, viz. the chyle already noticed, and of an useless or feculent mass, from which chyle cannot be prepared, constituting what is termed the fæces. The nutrient part, or chyle, taken up by the absorbents, is by them conveyed to a mass of blood, and by the arterial system, is distributed to every part of the body for its renovation and support. In order to apply this nourishment, the extremities of the arteries are divided into a set of small

canals, termed the secerning vessels, and though, in examining them, no difference appears in their shape, form and size, from each other, yet it is clear they separate from the blood very different matter or combinations. Thus the secerning vessels that belong to the bones deposit phosphate of lime; those connected with the glands, supply a peculiar glandular matter those of the cellular membrane deposit fat; and these different depositions of matter by these vessels can only be ascribed to chemical affinity; for, though all these different matters are secreted from the blood, yet they are not to be discovered in the blood by any experiment or chemical investigation. In the selection of nourishment it may be observed, that animal food, while it increases the muscular strength, it is apt to produce an over-fulness of the vessels, and thus occasion heaviness, languor, and lethargy. Vegetable food, on the contrary, though it causes a reduction of strength, tends to calm and quiet the system, and to compose the mind.

The great purport of taking food to an adult being to support the body in the mutation which it is constantly undergoing, a supply of aliment is found to be necessary about three times in the space of twenty-four hours. As the chyle furnished by this supply is deposited by the nutrient vessels, the old particles are removed; thus, in the language of Scripture, we may be said, while in life, to be in the midst of death. The set of vessels which take up the old matter, termed absorbents, convey their contents to the mass of blood, from which it is separated by certain organs, and conveyed out of the body. The organs appropriated for this purpose are, the liver, the kidneys, and glands of the intestines. Of these, the liver is the principal, By it is secreted the bile, which may be considered as nearly containing the whole feculencies of the blood. It has been asserted, that the bile tends to promote the digestion of our food; but, had the Creator intended such an office for this secretion, it would have been emptied into the organ in which digestion is performed, viz. the stomach, and not into the intestines. But so far from its promoting digestion, it is found that the presence of bile in the stomach never fails to disturb that organ, so as to excite nausea, and often violent vomiting.

The bile, by being emptied into the upper part of the intestines, may be intended to keep up their peristaltic motion. The office of the liver is therefore a most important one in the animal economy. Thus, whatever stimulates this organ, and occasions its more vigorous and complete action in the separation of the bile (the feculent part of the blood), proves highly useful in the cure of a variety of diseases, by purifying the

blood, and keeping up the peristaltic motion of the intestines; hence we may account for the salutary effects of mercury in a great variety of diseases, whose action is chiefly, if not entirely, on the liver.

Next to the liver, as separating useless parts from the blood, may be noticed the kidneys. By this outlet is carried off superfluous water, and the aqueous part of our food which is uot appropriated to nourishment, the quantity of which amounts daily to some pounds. Besides the feculent matter contained in the canal of the intestines from the superfluous parts of the food, there seems to be secreted also from the internal surface of this part a feculent matter, which constitutes a part of the fæces discharged from the intestines.

The skin may also be an outlet for superfluous matter of the watery kind; but this discharge appears to be principally, if not solely, for the purpose of regulating the temperature of the body during the different changes that take place in the atmosphere, and under disease. The vicissitudes of the atmosphere, more than impurity or any chemical combination, are the great causes of disease to the animal frame. Thus health is greater in proportion in large cities, from being less exposed to such vicissitudes, or sudden changes, than in the country. When the temperature of the body rises above the natural standard, by a secretion of perspirable fluid evaporation ensues, and the superabundant caloric is conveyed to the atmosphere. On the contrary, where the body is cool, and the heat below the natural standard, the cuticular discharge is either suppressed, or very trifling.

Besides the secretions, nutrient and excrementitious, there are a great variety of secretions going on in different parts of the body, to defend tender surfaces from the action of the atmosphere, and what might produce irritation and mischief; hence the lachrymal glands secrete a fluid (the tears) for the purpose of lubricating and defending the surface of the eyes. The internal surface of the nostrils pours out a mucus for the protection of the membrane on which depends the sense of smell. The internal membrane lining the joints is lubricated by a srecetion termed synovia. Under disease, the secretion of these parts is often of an acrid quality, excoriating the very surface it is meant to preserve.

In all animals, so strong does nature seem to have implanted the principle of vitality, that they appear capable of conveying it to others, and of forming, if they may be so termed, *Animated Excretions*, peculiar to themselves. This is a most remarkable circumstance. In the human body a variety of worms is generated, peculiar in their structure from any others to be met with out of the body. It has been indeed

conjectured, that the eggs of such animals may be taken into the stomach with our food and drink, and afterwards evolved; but this supposition falls to the ground, when these animals are traced in every part, as the brain, the liver, and even the flesh, which afford no access for the deposition of eggs. It is highly probable, therefore, that equivocal generation takes place. From these facts we are irresistibly led to draw the humiliating conclusion, that not only are we doomed at last to be the prey of worms, when life, vigour, and animation, are no more, but, even at the present moment we are exposed to the same dreadful source of mischief; and while we dance the gay round of pleasure, health and enjoyment, a worm may be secretly gnawing our vitals, and corroding the nice texture of the brain, or be lodged in our very heart's core.

General and partial Derangements of the Animal Economy, forming Disease.

HAVING taken a cursory view of the animating and nutritive powers which serve to give, and to support, life and health in the animal frame, I shall proceed to consider the deviations from health which occasionnally take place, forming disease. These may be divided into two classes, the *general* and *local*, as they either affect the whole body, or occur in one part.

Of the first or *general diseases*, the first order is that of increased heat, which admits many divisions.

The simplest of these diseases is, *inflammatory fever*. Here the blood is over-oxygenated, and the electric or Galvanic powers of the brain being also increased, an excess of heat is produced. The action of the heart being in consequence quickened, the blood is propelled through the vessels of the brain with greater force, tending to keep up the disturbed state of this organ. The skin becoming dry, heat continues to accumulate from the want of a conducting surface. From the excess of heat, the functions of all the organs are disturbed, and the secretions more or less morbid; hence the nausea and squeamishness of stomach, high coloured urine, and offensive and dark coloured fæces. During this state, if one part of the body be more tender than another, some mischief will probably ensue, particularly if it should continue two or three days, such as inflammation of the lungs, bowels, or brain. This accumulation of heat, it is highly probable, has a considerable influence on the state of the fluids. If coagulation of lymph is a natural effect of heat when applied out of the body, we may

presume that the application of the same power will also affect them in the body, though not, perhaps, to the same degree. Blood drawn in inflammatory fever has certainly a greater consistence, and exhibits more of the buffy coat, than in health.

In this state of body then, how would a chemical physician act, and what treatment would he adopt to restore the condition of health? He would certainly first diminish the quantity of that matter which attracts oxygen from the atmosphere, viz. the red particles of blood, by bleeding.* His next object would be, to diminish the excitability of the brain, by the application of cold water to the head by means of a napkin. Having thus lessened the supply of oxygen, and diminished the action of the brain, he would next endeavour to carry off the accumulated heat by producing a conducting surface of the whole body, by exciting perspiration. If this be found difficult, to be accomplished, he will artificially produce the same surface, by means either of the cold or warm bath, the latter of which is preferable, on account of being more likely to bring on the natural secretion. From the sympathy existing between the brain and the stomach and bowels, he would also empty the intestinal canal, that no irritation might be kept up in it. The secretion of the skin being restored, he would endeavour to keep up the evaporation by enforcing the use of diluent drinks, and, for this purpose, cold water answers best. Such is the practice that will be found to succeed in simple inflammatory fever. Considering the cause and nature of inflammatory fever, how little is to be expected from the usual prescriptions of physicians, consisting of small doses of antimony, or a saline draught. By irritating the stomach when excessive heat prevails, by wine or tonic medicines, much injury is often done, and the disease aggravated to the highest degree, and when the patient survives, he is indebted to his sound constitution; for, under such remedies, had any part of the system been previously faulty, the patient must have fallen a victim to the treatment.

The next order of this class of general diseases is *intermit-*

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* It has been said, the sulphuret of ammonia diminishes the red particles of blood. If this should stand to fact, it would prove a highly valuable medicine in inflammatory diseases, and would supersede the use of bleeding, which is employed solely for the purpose of extracting or diminishing the red particles. During inflammatory fever, red particles of the blood are conveyed from the system by the urine, forming what is termed a lateritious sediment, which contains iron, and as soon as this takes place, the fever abates.

tent fever, the constant and certain cause of which is, Marsh Miasmata, or the effluvia produced from a humid soil. The effects of this effluvia are, first to occasion reduction of the vital powers. Hence the extremities become cold; the pulse small and feeble, and the countenance exhibits a ghastly appearance. This state, after continuing for some hours, is succeeded by an opposite one; the heat of the system becoming wonderfully augmented; the pulse full and vigorous, and the vessels of the head overloaded. The duration of this change is limited to some hours, when a copious conducting surface comes on, and is the means of terminating the fever, which is followed by a languid state of the body.

These phenomena admit an easy explanation. The action of the Marsh Miasmata, in the first instance, depresses the vital principle, and the increased action of the system which ensues, is an effort of nature to regain her lost energies.

To regain health under these circumstances, it is necessary to invigorate the stomach, as the organ which supplies nourishment to the system, and being more connected with the brain than any other. The fever is here evidently a salutary attempt on the part of nature to preserve herself, and resist the morbid cause, but her efforts being proportioned to the degree of debility or deficiency of the vital heat, the temperature of body is considerably raised above its natural standard; hence injury is often produced to some of the organs, particularly the liver, which tends to keep up the effects of the marsh effluvia. This local injury is generally regarded by physicians as the cause, instead of the effect of the malady.

When the sentient powers of the brain are disturbed by excessive heat of body, other phenomena are produced. The intellectual functions are disturbed, producing delirium. Symptoms of extreme debility ensue, and this morbid irritation of the nervous system will often continue after the increased heat has subsided. In this state, there is a disposition in the body to decomposition, and which often partially takes place, producing what is termed mortification. This form of fever has been styled the *putrid fever* or *typhus*. Such fevers are often epidemic, not from the principle of infection, but from a state or condition of the part of the earth on which they occur. Hence the disease sometimes spreads independent of the utmost vigilance to cut off all communication with the infected. Not at the same time that it can de denied that fevers exist of a real contagious nature, from a peculiar matter entering the system, probably by the lungs; for we find the urine will smell strongly of turpentine a few hours after its vapours have been received into the lungs.

In the treatment of such fevers, Chemistry points out the necessity of allaying the morbid excitability of the brain, by application of cold water to the head, and to produce a conducting surface of the whole body to carry off the superabundant heat; and, for this purpose, sponging the skin with cold vinegar, has been found to answer best. It then directs the removal of any irritating matter from the intestines; and, lastly, it recommends to keep up a certain cohesion of fibre, from the strong tendency to decomposition; for which purpose, astringent matter or tannin should be applied to the stomach, as an infusion of rhatany, barks of a similar nature.*

If the blood happens to be impregnated with an excess of muriate of soda, then inflammatory fever will exhibit other phenomena by the appearance of cutaneous inflammation and vesicles, termed *erysipelas*. Most diseases are aggravated by a super-saline state of the fluids, especially those of secreting surfaces, in consequence of their secretions being strongly impregnated with muriate of soda, as catarrh, cough, fluor albus, gleet, &c. Where this state exists, the urine is strongly impregnated with the muriate of soda.

Besides the forms of fever already described, the ignition of the body is disturbed by contagious matter, giving peculiar forms of disease, and producing different appearances on the skin, as *small pox*, *measles*, *chicken pox*, &c. During the increased ignition which attends their progress, a matter of the same nature as the contagion is generated to a considerable extent, and the body rendered secure against any future attack of the complaint. As the production of morbid matter is in proportion to the degree of fever, it is of the highest importance in the treatment to diminish it on the first appearance.

During these fevers, as well as the other forms described, the excess of heat, or increased ignition, is very apt to produce mischief in tender organs. Hence we find that eruptive fevers, especially measles, are often followed by organic disease of the lungs, termed consumption, particularly where there exists a delicate structure of the absorbent system, or what is termed a scrophulous predisposition. These consequences, therefore, strongly point out the necessity for using every means of reducing the excess of heat as quickly as possible to the natural standard. But, where the natural deter-

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* It is customary to exhibit Port wine in this fever, but the alkohol often disturbs the brain. Dr. Ferriar, of Manchester, asserts, that he has experienced all the good effects from the Rhatany root with sulphuric acid, he ever did from Port Wine, without producing the bad effects which often follow the exhibition of the latter.

mination of the disease is, as in these cases, to the skin, the circulation to the surface must not be checked. In small-pox, it has long been the practice to keep the body cool, and experience has proved the utility of this plan; but in measles, the application of cold water to the head may prove useful, but to the surface of the body warm water will be more proper, in order to keep up perspiration, and prevent the determination to the lungs, which is so apt to take place in this peculiar disease.

From these facts, it is obvious that much mischief may be done at all times by the continuance of a high degree of increased ignition, or heat, in tender parts of the system, and such is the formation of the animal structure, that there are few individuals in whom some part is not of a more weak or tender texture than another. By a continued accelerated circulation through such part, accompanied with excessive heat, local derangement will sooner or later take place. Indeed, instances have occurred of the ignition of the body actually running so high, as to produce complete decomposition of the animal structure in a few hours, termed *spontaneous combustion*. The transactions of the Royal Society of London present a remarkable instance of this ignition of body rising to fatal excess. It occurred at Ipswich, and in the Journal de Physique of Paris, many cases, not less remarkable, are recorded. Increased heat then of the body, from its injurious effects, shews the necessity of keeping the system rather below than above the natural standard, and in proof of the advantage of it, we find persons of languid constitutions are generally long-lived, and escape a number of diseases, while the inflammatory habit catching fire on every occasion, or having its heat so easily increased above its natural standard, is the constant victim of disease, and rarely has his life protracted to a distant period.

The next order of diseases that occurs in the arrangement I have adopted, are those of *diminished ignition*, a strong example of which is afforded in dropsy. A chemical physician, reviewing the phenomena of this disease, would direct his treatment to increase the red particles of blood, that more oxygen may be attracted from the atmosphere. This, it is well known, can be done by the use of the chemical preparations of iron; a metal which analysis of the blood has taught us exists in a certain proportion in those particles. It is by increasing the heat of the system that iron acts as a tonic on the body. The next object in the treatment of this disease will be to increase the general cohesion of fibre, and prevent the tendency to decomposition. This is done by astringents, particularly the Rhatany root and Peruvian bark, and to these means he

will next add the use of stimulants, with a view to rouse the action of the brain, and consequently the absorbent system, while the parts affected are supported by rollers, or other mechanical means; and as the outlet of watery matter is the kidneys, he will stimulate them by the exhibition of the articles termed diuretic.

A morbid state of the sentient powers of the brain forms the next, and a very important class of diseases. The nerves, as they branch out from the brain, have all different offices assigned to them, and hence disease, though excited by one and the same cause, exhibits very different phenomena, in consequence of this circumstance. Where the communication between the brain and the nerves is cut off in any part of their course, either by compression or diseased structure, the nerve loses the power of performing its office. Thus, compression of the optic nerve occasions blindness, termed gutta serena, in the same manner a division or morbid state of the nerves of the ears produces deafness.

A morbid degree of irritation of the nerves of the lungs, or muscular fibres of the air vessels, is termed *asthma*. The same state, or morbid irritation of the nerves of membranes, or the ligaments of joints, is styled *rheumatism*. A similar condition of the nerves of the stomach occasions *indigestion*; morbid irritation of the kidneys, producing an excessive discharge of urine, is termed *diabetes*. This state of morbid irritation of the nerves of these different organs, may be either the effect of increased ignition, or excess of vitality, or a diminution of heat below the natural standard. It may be here observed, that the nerves of one part of the body are more readily disturbed than others; and this is often transmitted from the parent to the offspring. Hence in a person, whose pulmonary nerves are more delicate and irritable than those of any other part of this system, whatever occasions a general derangement of health, as changes of atmosphere, passions of mind, excesses of any kind, &c. will produce a fit of *asthma*. In another, where the nerves of the intestines are in a delicate state, *diarrhœa* or purging will be produced. In a female, with a morbid irritability of uterine nerves, *hysteria* shews itself, and the same might be exemplified in a variety of other instances. From this view of the system, we can account for one disease suspending the action of another, from its producing a greater degree of irritation, even though that irritation is remote from the seat of the original disease, as by a blister applied to the leg, by fractures, &c.

Thus to give instances, a blister applied to the leg, has cured a fit of asthma, and that state of mind produced by the

influence of charms or mystic remedies, has been found highly beneficial in a great variety of nervous affections. An alarm has often cured a fit of gout, when the patient at the time was unable to move, from the instantaneous and strong effect produced on his mind, in consequence of the terror of fire. Numerous instances of this kind are on record. From the different states of system with which these different affections of the nerves are attended, I have, with a view to simplify their treatment, termed them *super-irritative* and *sub-irritative.** This distinction is of the greatest importance in practice, for the remedies that apply to the one, must prove highly injurious when applied to the other. To confirm this by example: In a plethoric female, *hysteria* is equally a common disease, as in women of a different habit. Asafœtida, and other stimulants if given to the former, cannot fail to aggravate the disease; remedies of an opposite quality being the true antispasmodic suited to the existing morbid circumstances. In rheumatism the distinction now made has been long observed, and hence the terms of acute and chronic, as particularly applied to the two different forms of this disease. The distinction I now contend for is strongly confirmed in its propriety, by considering further the diseases of the young and old. In youth, the system shews a more lively degree of irritation. and the blood-vessels, particularly the arterial system, being for the most part overloaded, a greater degree of heat is evolved. To apply our knowledge of this state on proper principles to the treatment of disease, we may observe that, in white swelling, friction with the warm hand is decidedly injurious in a young subject, as promoting suppuration, and extending organic derangement of structure; but, on the contrary, when the arterial system is in a different state, and shews no marks of being overloaded, then the same application of friction will be highly useful by rousing the powers of the absorbent vessels and promoting more actively the process of mutation. Hence the age of a patient is a point of the greatest consequence in directing the treatment of a disease as modifying the state of the same malady. To increase our examples, we may observe that even indigestion, a disease generally attributed to debility and relaxation of stomach, is often an affection of the super-irritative kind. It often occurs in persons who eat much

* Super-irritation of system is that state in which many diseases can only exist, and when this is removed either by medicine or the debilitating effects of the malady it terminates, when it is said spontaneously to cease. So with diseases of diminished irritation, by raising the system to a proper degree, health is restored.

animal food, and indulge in vinous liquors, by which the sanguiferous system becoming overloaded, the brain is compressed, and languor, lassitude, and a sense of seeming weakness are the consequences. By the same cause the brain is disturbed, and the system rendered irritable. Here the usual remedies of stomachics and cordials, of high stimulant powers, cannot fail to prove mischievous; while, on the contrary, those means that tend to produce depletion, and unload the system, will restore the body to health.

When the food is not properly digested, fermentation is a process that naturally ensues, occasioning acidity and disengagement of fixed air. The acid thus generated is very powerful and is probably of an animal nature, and not merely acetous from the fermentation of vegetable matter, as supposed, for it is evidently attendant equally as much on animal as vegetable diet. As a farther proof of its peculiar nature, when a drachm of magnesia is taken to correct the prevailing acidity of the stomach, it acts with more power than if the same magnesia had been neutralized with the sulphuric acid. There is also a disengagement of hydrogen in the intestines, which is, I conceive, of an animal nature, being more heavy than common hydrogen. It is probably produced in the intestines, and passes downwards. It may be even ignited by fire. This gas is also found to exist in quantity in the blood.

From morbid irritation of the nerves of muscles arise involuntary contraction of the muscular fibres, termed spasms, which in the large muscles, particularly those of the calf of the leg, are generally very obstinate and painful. In the circular muscles of the intestines, these spasms are most acutely painful, but in point of obstinacy and continued contraction those of the muscles of mastication producing the disease termed lock jaw, is the most obstinate, proceeding probably from the principal muscle (a short thick one), being *naturally* in a contracted state, in order to keep the jaws together.

In the foregoing view of the system, it has been observed, the action of the brain regulates its economy, and that the nourishment and mutation of the body is dependent on it, for from it the several organs and vessels derive their primary powers of acting. In cases of local morbid irritation of nerves we may therefore suspect diseased structure or partial derangement will be the consequence; for in the mutation of the body, a process constantly going on, if by this morbid irritation the unison of action be destroyed between the depositing and absorbing vessels, the consequence will be a diminution of bulk, or shrinking of the part, or an increase of bulk. The accumulation or increase will partake of the nature of the part, in the

mutation or support of which the vessels were concerned Thus when the accumulation takes place in the cellular substance, a fatty tumour is formed; if in a bone, the accumulation will consist of bony matter; if in the cuticle, it will constitute a wart; if in the glands, it will exhibit the same degree of firmness and peculiar structure. In the glands of the female breasts, this accumulation is very common, producing that formidable disease termed *cancer*. In explanation of this disease, the nutrient vessels deposit more than the absorbent vessels can carry off, and thus the glandular matter continues to amass, till compression of the nutrient vessels takes place to that degree, that the source of nourishment is cut off from the part, when the latter becomes, as it were, an extraneous body subject to all the changes of animal matter; and on putrefaction taking place, forming an ulcer, peculiarly fetid and offensive. In the progress of this accumulation the absorbent vessels becoming enlarged, resemble the claws of a crab, from which the disease is named.

In the treatment of this and similar affections, the great object is to increase the action of the absorbent vessels of the part, which cannot be more effectually done than by friction and stimulating plasters. These methods generally succeed in the early period of the disease, before the absorbent vessels are compressed by the accumulated matter. In the process of the mutation of the system, the absorbent vessels act a very important part. From a morbid irritability of these vessels alone arises that peculiar disease termed scrophula, to which persons of delicate structure and morbid sensibility are most subject. Hence it is the disease of genius, of talent, and of those possessed of the finer feelings. Its obstinacy arises from the vessels being constantly in action. Cold bathing seems here so far useful as diminishing the morbid irritability better than any means. The local mischief which takes place must be treated according to the predominant state of the system as to plethora or debility, *i. e.* whether it is of super-irritative or sub-irritative nature.

From the foregoing view of the human body, local diseases may be divided into three classes, viz. *increased* and *diminished ignition; super-irritation* and *sub-irritation;* and *diminished irritation.*

The first order of diseases of increased ignition or heat, are those termed inflammation; and here the local increase of ignition is often very great, the part becoming tumefied by the distention of its vessels, and effusion of lymph, the small vessels seem obstructed by the lymph of the blood being thickened in consequence of its increased heat; and this is confirmed by the

appearance of the fluid on scarification. In directing his treatment here, a chemical physician would not only unload the vessels of the part, but he would keep up also an evaporation from it, by applying to it a simple fluid in a cold state to produce a conducting surface. For this purpose alcohol and ether are the most effectual, as being more rapidly evaporated. The effect of ether indeed depends on its facility to escape, for if it be confined on the part by the hand, instead of conducting off heat, it will increase the mischief.

Besides this local treatment, he will also attend to reducing the general increased ignition of the system, by cold applied to the head, by removing general fulness and internal irritation, by purgatives, and if the part affected be an important one in the economy, he will reduce the quantity of blood in the system. Local super-ignition or inflammation, exhibits different characters, according to different structure of the part it attacks; when it occurs in a secreting surface, there is an increased secretion of the part, which checks its progress to suppuration, when chiefly confined to the nerves it is very painful, forming what is termed the *gout*.

The second order, diseases of local sub-ignition, occur in almost every part of the body, as well as the former, and they arise also from diseased absorbent vessels, and diminished irritation of nerves.

Of the local diseases of morbid irritation those of accumulation have been noticed, but when the secerning extremities of the nutrient vessels do not perform their office, an opposite state to the former order of diseases takes place, the parts diminishing in size, termed atrophy. When this occurs in the bones, the disease is named rickets, produced in consequence of the phosphate of lime, which gives firmness and solidity to the bones, not being supplied or deposited in their substance in due quantity.

The difference in the appearance and nature of disease therefore arises from the difference of structure of the part in which it occurs. Thus the morbid irritation that disturbs the mutation of the cuticle will have a different appearance to what takes place where it disturbs the mutation of the Rete Mucosum and the true skin. This difference is strongly instanced in the scalp. If confined to the cuticle it will exhibit a furfuraceous appearance, or form scald head;—if it extends to the rete mucosum, it will show the appearance of ring-worm, and if it goes still deeper, it will then constitute a boil, and these different affections will again differ in their appearance as they are attended with a state of super or sub-ignition.

Besides the maladies enumerated, he has in his new system

introduced a class of diseases from mechanical causes. The first order of this class arises from compression, and comprises *apoplexy* and *dropsy*—the former arising from the compression of the brain, the latter from the compression of veins, particularly those of the liver. Jaundice also belongs to this division, from obstruction of the biliary duct by biliary concretion.

The second order arises from laceration, as *hemoptœ*, from rupture of vessels in the lungs, and *hepistaxis* from a similar rupture of vessels in the nose.

A third order is formed of loss of natural support, as *spina bifida*, *aneurism*, *rupture*, &c.

Another class comprehends parasitical diseases, of which there are two divisions, internal and external.

The first comprises the different species of *worms*, *hydatids*, *stone*, &c.

The latter consists of the *itch*, *lousy disease*, *Guinea worm*, &c.

Some exception may be made to this classification of stone, as giving it animation, and receiving it as a living parasitical production, but it certainly on chemical examination possesses animal properties, and shews at the same time a regular formed structure.

From this view of the principle of Animal Life, and the leading phenomena of Disease, the human body resembles an elaboratory, in which is constantly going on a variety of processes, and regulated in its movements and having its existence begun and continued by the action of its calorificating powers, joined with its sentient and intellectual functions. In the treatment then of disease, it is an attention to these combined powers that is to direct our conduct. We have seen, on examining this interesting subject, that the mind, a principle which soars superior to matter, has a leading influence over it, and particularly over that organ termed the brain, that its power exceeds that of any chemical agent, and that in consequence of this strong regulating influence it possesses, it is highly probable that the efficacy of medicine, and of all such matters as are directed to the cure of disease, depends much on the confidence of the patient, and the impression his mind receives from the flattering prospect held out by their use. Some medicines certainly do much good by the very disgust they excite in the mind, as asafœtida, &c.

In the treatment of chronic diseases, the leading point for attention is the state of the digestive organs. The stomach, like the chemical digester, is the grand preparer of nourishment, an office on which greatly depends the existence and the health of the system. The importance of this office is particularly

pointed out by the analogy of the vegetable kingdom. A shrub, whose branches are withering, stinted, and diseased, recovers soon after it is transplanted from a bad to a good soil, when it becomes strong, full, and healthy; so in the animal, a proper conversion of food into chyle will have an equal effect. But not only is it necessary that proper nutrition should be supplied for a healthy state, but it is also requisite that the superfluous or feculent parts should be removed from the intestines daily, as they are apt to be decomposed, by the action of heat, in the intestines, and thus to produce serious injury to the body. So much is Mr. Abernethy impressed with this fact, that there is scarcely a disease which he does not refer to a disordered state of the digestive organs, and to remedy which his treatment is accordingly adapted. One great error in common life may be here noticed as highly prejudicial to health, viz. the custom of indulging in wine or other stimulant liquors during and after dinner. This is not necessary to a healthy action of the stomach, and by accelerating its functions must evidently do harm. Cold water is the best promoter of digestion in youth and middle life, and wine is a cordial that should be only reserved for the weakened powers and incomplete digestion of age. The alkohol of wine appears also to enter the blood, for the air that is expelled from the lungs of a drunkard is impregnated with it. Such a combination must necessarily injure the brain, and sooner or later produce general or local mischief.

In the treatment of diseases again, the age of the patient is a leading point to regulate our conduct in the use of remedies. After the age of fifty, the heyday of life is past. The powers of the system begin to flag, and its former vigour to decay. Morbosity, or deranged structure, in consequence of imperfect mutation, is apt to take place, as ossification of arteries, thickening of parts, &c. The nervous system is less excitable or susceptible of impressions as it has hitherto displayed. The arterial fulness, or plethora, which distinguishes youth, has now passed to the venous system, where the blood is retarded and accumulates in different parts. At the period when inflammation occurs, and where bleeding may be indispensable as a remedy, it will be necessary to attend with a guarded caution to the quantity and quality of the blood. The same attention must be extended in directing the use of every active medicine to counteract disease.

In diseases where the continued use of mercury is deemed necessary, the stomach and system should be prepared for its exhibition; for if the stomach be disordered, and a morbid acidity generated, purging or diarrhœa will be the consequence.

Hence in every chronic disease, before entering upon its cure, some preparatory treatment will be necessary to ensure the success of the means to be adopted.

But 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 conclude this chapter with the necessary questions to be put to patients, the answers to which will afford the requisite information; with a few remarks, the object of which is more clearly to elucidate the nature of the disease, and point out the most judicious plan of treatment. It is a well known 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 natural stamina of their patients, they will write an elaborate 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 cha-

racter, 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 connexions 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 sooth 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. Our conduct as physicians should always be regulated by the precepts of Christianity. Instead of being actuated by sordid motives, we should endeavour to realize 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 practioner 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 scarification: 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 inquire 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 admi-

nistered in cases of shivering, until it be manifestly ague, as a considerable aggravation of the inflammatory symtoms 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 ir-

ritation 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 *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 any 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 is 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 tumor, or water in the chest or pericardium.

The pulse of a child should be felt whilst it is asleep, on ac-

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* 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.

count 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, at 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 distention 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 109, 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, favour 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 dropsical 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 distention 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 in 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 inquire 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 inquiring 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 patients 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 Hipprocratic 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 inquire 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 inquiries, 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 than lime-water.

On the means of ascertaining the nature of different diseases, I have already been explicit. 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 because 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-aches, St. Vitus's dance, insanity, epilepsy, &c.

Before we prescribe purgatives, we should inquire 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 reproduce 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, being 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. 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 96. No medical man of 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 an infectious fever, 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."

THE SYMPTOMS, CAUSES, TREATMENT

&c. &c.

OF

DISEASES.

OF AGUE.

THIS fever is the most acute and violent that occurs in the human subject. When the paroxysms or fits are 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 *Quotidian:* when every other day, *Tertian;* and *Quartan*, 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 *Vernal*, 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 particularize them.

This recurrent fever is divided into three stages, viz. the *Cold*, *Hot*, and *Sweating*. The *cold fit* begins with a 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, constituting 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 intervals of recurrence of the fever depend on the state of the constitution, and particularly of the stomach and liver. (See Ague, under the head of Introduction, page 160.)

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 48. 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 85.) 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 the parts of the body most likely to be disordered by the violence of this fever, are the liver, spleen, and stomach, and that the liver is frequently tumefied, so as to render the exhibition of the bark highly improper. When, therefore, a yellow and bloated countenance, with a sense of fulness 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 38), 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, and apply over the region of the liver the euphorbium plaster spread on

leather. This application is a powerful auxiliary to the Peruvian bark.

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, mercury, &c. as above directed, or when the patient cannot be prevailed on to give those remedies a fair trial. In obstinate cases of ague, the use of the solution of arsenic only for one day will produce an alteration, that it will afterwards yield to the Peruvian bark in a few days. Ague, by debilitating the frame, sometimes produces, particularly in children, 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. Sometime 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 38) to be rubbed over the bowels twice a day, and six drops of the alkaline 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 entirely discontinued, and a clyster of rhatany powder and broth administered twice a day for a few days, to strengthen the system, and prevent a relapse. The small quantity of one-eighth part of a grain of arsenic being sufficient to poison an adult, it is clear this medicine should not 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 48.) 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 gra-

dually, 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 twice a day 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 digusting 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 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 tonic 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.

The diet should be generous. (See Generous Diet, fol. 122).

Recapitulation.—By the foregoing account of ague, it appears, that notwithstanding its violence, it is a disease of debility: that the best remedy is the Peruvian bark or rhatany root; and that in consequence of the viscera being disordered by the violence of the fever, and thereby rendered more obstinate, these remedies should be administered in full doses on its first attack, that the state of the bowels should be attentively watched. That a little calomel, by preventing or removing obstruction of the liver, &c. is very useful. That the irritation of skin excited by the Euphorbium plaster is also a powerful auxiliary. That when the nervous system is disturbed (keeping up a degree of irritative fever during the intervals of the paroxysm) the application of cold water to the head, and a blister between the shoulders, are also necessary. That arsenic should not be employed but in csae that resist the powers of the bark, and

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* 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.

the other remedies specified. That the mind should be supported, and, with this view, charms or whimsical remedies may be countenanced.

OF APOPLEXY.

An apoplectic fit consists in a sudden deprivation of all the senses and of voluntary motion, generally in 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 in this disease, 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 an 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 a 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 head aches; 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; faultering 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 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 that cannot be satisfactorily accounted 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 the power of vision of the *left* will be nearly destroyed.‖

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* The velocity of the influx of blood into the vessels of the brain is considerably checked by the *tortuous* course of the arteries by which it is conveyed; 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 Swieton, as *frequent* causes of apoplexy.

‡ When sudden death takes place during drunkenness, it must be by produ̅cing 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 drinkiug, 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 neigbourhood, brought on, no doubt, by the straining occasioned by a costive motion. In these instances, however, there must have been a great predisposition to the disease.

‖ 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 apopletic 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-ache, giddiness, and drowsiness.

It is very common, on examining the brains of persons far advanced in life, to find the coats of arteries in a diseased state. There is often a bony or earthy matter deposited in the coats of the greater, and sometimes 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 overloaded and 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 scarifying the scalp, or nape of the neck, and the part between the shoulders, by means of the cupping-machine. If this cannot be readily done, the extraction of blood from the arm should not be delayed.† If the disease be produced by detension of vessels only, the extraction of blood will immediately afford considerable relief, and if this effect does not follow, we may conclude that an effusion of blood has taken place in the brain. Blisters should likewise be applied to the head,‡ and between the shoulders. The next object is, to

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* This diseased state of the blood-vessels of the head is, no doubt, often the cause of obstinate head-ache, 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 in the arm should be prefered 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 beneficial; 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 compression of brain be occasioned by an effusion of blood, it is of great consequence, after unloading the system, to prolong the life of the patient, in order that there may be time for the absorption of the effused blood; and with this view, the discharge and irritation of the blister of the scalp should be kept up.

lessen the determination of blood *to the head*, by increasiug 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 three of the aperient Pills, 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 determining the circulation to the extremities and surface of the body, it has often relieved *local* congestion; but the *violence* of straining may occasion the rupture of a distended vessel in the head; and if effusion have taken place, it is very likely to increase it. It is therefore, too hazardous a remedy to employ in domestic medicine.

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 104.)

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. He should 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 197, 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. The Asarabacca Snuff, noticed page 90, 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 aperient,

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 determination of blood to the head, but, by strengthening the vessels of the brain, and allaying morbid irritation of that organ, will prevent turgescence. An overloaded state of the blood-vessels of the brain often arises from a 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 may be 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, and the *manner of living*; from epilepsy, by the stertoreous breathing, diminution of the power of volition, and *absence* of convulsions. It is often extremely difficult to distinguish the insensible state that *follows* an epileptic fit from 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 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

* 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 in 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.

very proper. It is the consequence of extreme debility of the system, and generally terminates in death.

Another species of apoplexy, I am well persuaded, often occurs from wasting, or diminution of the substance of the brain, which occurs in elderly subjects, In this case, the blood-vessels become over distended with blood, for the purpose of filling the skull, in consequence of its bones not collapsing. The atrophy of brain continuing, a blood vessel at length gives way, producing fatal apoplexy.—This disease may be distinguished from the plethoric apoplexy, by its being preceded for many months, and sometimes years, by general debility, both of body and mind. The subject has also a long neck, and much emaciated. In this case it is clear, the loss of blood would be highly improper; a generous diet, the moderate use of wine, and the use of a cordial stomachic medicine, as Huxham's Tincture if Bark, are most likely to prevent apoplexy.

Recapitulation.—Apoplexy is produced by compression of the brain, either by considerable distension of its blood-vessels, or an effusion of blood from a ruptured blood-vessel, or effusion of serum. The most active remedies should be promptly employed to lessen the quantity of blood, and to increase its circulation in the extremities. If the cause be over-distension of blood-vessels without effusion, the patient is so much relieved by the loss of blood, as to become sensible, and if this effect do not follow the operation, either of cupping or bleeding, there can be no doubt but that effusion has taken place, in which case, the life of the patient should be prolonged by a perpetual blister to the scalp, and stimulating poultices to the feet, and by the exhibition of nutrient and stimulating clysters, that the absorbent vessels may have time to remove the effused blood. When the effusion is evidently serum, which may be known by the body being dropsical, and by its coming on gradually, the strength of the system must not be reduced by extracting blood. Apoplexy generally terminating fatally, or leaving the patient in a very impaired state of health, the preventive means should be carefully observed. When apoplexy occurs in a debilitated subject, of a long neck and emaciated body, and particularly when the mental faculties have been gradually declining, the fit may be the consequence of wasting of the substance of the brain, in which case, the skull not having the power of collapsing, the blood-vessels of the brain are distended to fill up the cavity, till, at length, a vessel not admitting of further distension, gives way, and effusion of its contents ensue—generally destroying life in a few minutes.

OF ASTHMA.

When this disease is attended with expectoration, or discharge of phlegm from the lungs, it is termed *humoral asthma*,

and when there is no such discharge, it is named *dry asthma*. Other species are enumerated by authors, but the real difference of asthma arises alone from differences of constitution of patients. The constitution of asthmatics exhibits certain peculiarities, in a high degree similar to hypochondriasis. This is often so very remarkable; that what will put the disease into action in one patient, will often prove a means of relieving it in another. This peculiarity of nerves is particularly shewn in a morbid susceptibility of the membrane lining 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, which, in some subjects, runs much higher than in others. When the exciting cause of the disease puts the malady into action, 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 are over-distended.

In a person 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 a heavy or irritating air. See Asthma, under the head of Introduction to the Second Part.

When the patient is of a delicate or tender structure, the sanguiferous system over-loaded, or the subject advanced in years, 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; but in a subject, whose constitution is more nervous than inflammatory, and the fibres rigid, the membrane secretes little or no mucus; and 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 chief point to determine, 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 characterize 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-distention 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 of remedies for the cure of asthma are as numerous as the species into which they divide the disease; they have their hosts of expectorants, of emenagogues, chologogues, diaphoretics, relaxants, tonics, &c. &c.; but these are a mere list of inefficient names on which a peal 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: Viz. to abate the violence of the paroxysm, and 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 nervous state.

With respect to the treatment of the *super-irritative* species, as the vitalising powers of the constitution run too high, the first step is to unload the blood-vessels, which is best effected by opening a vein in the arm; for the operation of cupping on the chest, by increasing or exciting irritation of its external muscles, is often hurtful. An 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 have recourse to local remedies. For this purpose the inhaling of the fume of the prepared stramonium of Mr. Fisher, by smoking, has been lately much employed, and in many instances I have known it to prove highly beneficial.

It has been 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 igno-

rant 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 this anodyne vapour is often very 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. The herb when used, should not be perfectly dry; for in this case the smoke will not be sufficiently humid to convey a proper proportion of the anodyne quality, and, of course, from the absence of it, the matter of heat will increase the irritation. When employed with a view of preventing or palliating the paroxysm, the patient should begin to smoke it about an hour before the usual time of the recurrence of the asthmatic fit; and in all cases this is the most preferable period as 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*.

Since the publication of the last edition of this work, the author has found the hedge-hyssop *(gratiola officinalis)* so very beneficial in asthma, that he was induced to recommend it to the attention of the medical profession in a small treatise on its virtues. This herb powerfully allays the morbid irritation of the lungs, promotes expectoration, obviates costiveness, strengthens the stomach, and increases the secretion of urine and perspiration of the skin. The oxymel of the herb, combined with an aromatic, as the caraway or anise seed, is the best form for exhibiting it in cases of asthma. Of this aromatic oxymel, one table spoonful may be taken with the same quantity of barley-water every forenoon, between the times of breakfast and dinner, and in the evening.

The warm or vapour bath, employed two or three hours before the usual period of accession, will often prevent the

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* 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, its anodyne property is much injured, particularly the volatile parts, which only are serviceable in such cases.

recurrence of a fit. Whatever 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 asarabacca snuff has suddenly terminated the paroxysm.

All asthmatics, whether the system be in an increased or diminished state of vitality are very subject to an accumulation of inflammable air in the intestines, which renders the occasional use of an aperient medicine necessary; distention of the stomach or intestines from any cause being a source of great distress to the patient, by mechanically preventing the free motion of the diaphragm. For the purpose of unloading the intestinal canal, the following pills may be administered once or twice a week.

Take of compound colocynth pill, one drachm; prepared calomel, six grains. Mix; and divide into fifteen pills, of which three may be taken occasionally.

When plethora does not prevail, and the body is evidently in a state of debility and relaxation, the object is to raise the system to a standard of health, see Indigestion; on doing which the local irritation generally subsides. In this case, inhaling the fume which escapes during smoking, a composition of equal parts of the dried hops and hedge-hyssop, about twice a day has proved very beneficial by promoting expectoration and allaying morbid irritation of the membrane lining the air vessels.

To hasten the termination of the paroxysm, rubbing the scalp with camphorated sal volatile, and immersing the feet in warm water, are often 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 asarabacca snuff by rousing the energy of the brain, will prove a powerful auxiliary in terminating the paroxysm.

In this species of asthma, the hedge-hyssop should be combined with a tonic medicine, as the liverwort or rhatany root, according to the degree of debility, in the following proportion; three tablespoonfuls of which may be taken two or three times a day.

Take of the aromatic oxymel of hedge-hyssop, three ounces; decoction of liverwort, No. 117, fol. 71, or decoction of rhatany root, six ounces.—Mix.

Vomiting excited in the evening will sometimes, by unloading

the stomach, promoting expectoration, and increasing perspiration, prevent the accession of a paroxysm. For this purpose, the following draught may be administered.

Take of ipecacuan powder, fifteen grains; sulphate of zinc, four grains; oxymel of squill, two drachms; peppermint-water, one ounce.---Mix.

The application of Burgundy-pitch plaster or blister 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 pill, 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, 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 overloaded, while the arterial system is in 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 in the chest, I have known blisters applied to the legs to afford the most marked benefit.

If, notwithstanding the employment of the above remedies, a paucity of urine exists, one grain of calomel may be taken twice a day; and if the irritable state of the stomach or bowels forbid its use, friction on the surface may be substituted for an internal administration, as directed under the head of Calomel, page 38. 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 vegetable 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: in general meat underdone agrees best with the stomach.

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 an over-distention of the stomach, 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 in-

testinal canal, and increases the evil. Green vegetables are, above all, particularly hurtful; and of all vegetable productions, bread and the mealy potatoe agree 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 the process 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, and to act 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 or brandy, diluted with water, may be allowed.

For breakfast, and the evening repast, the cocoa of the sassafras-tea (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 89.

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 fireside: 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 is the variable nature of the malady, that some cannot breathe in a light air, while others feel equal inconvenience 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 often prejudicial, even independent of its temperature.

In this disease, walking and sailing have been much recommended 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 here 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 or lozenge 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 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 cider is 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 bedchamber during *night*, for reasons already assigned, page 94 (note). He should likewise choose a residence adapted to the different seasons of the year. For the winter season, Sidmouth,

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* If the subject be advanced in years, or affected with swelling of the legs, an issue or seton is improper, for by extracting the glutinous part of the blood, will increase the debility of the system.

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 to fly for relief to the cold air, will distinguish asthma from other diseases of the lungs.

Recapitulation.—By the preceding definition of asthma, it appears that it arises from a morbid irritation of the nerves of the lungs, that whatever disturbs the general health brings it into action; that its treatment must be varied according to the state of the constitution, *i. e.* when plethora prevails, bleeding, and such remedies as are calculated to reduce the strength of the system are proper; in this state of body the disease is named *super-irritative*. But when the system is in a debilitated state, strengthening means are to be employed, in this case the disease is denominated *sub-irritative*. The sufferings of all asthmatics being increased by distention of the bowels, the state of the stomach and intestines should be particularly attended to. That the most efficacious remedy for allaying morbid irritation of the nerves of the lungs is the hedge-hyssop. That opium, by checking expectoration, constipating the bowels, and disturbing the general health, is manifestly hurtful. That when extreme debility prevails, the system must be supported by a generous diet, and the use of cordials.

OF BARRENNESS.

There are several causes of barrenness, which, from the delicacy of the subject, 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 its most frequent causes.

Whatever be the impediment, all that art can do is to improve the state of the general health, aad 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.

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* "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."

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 may succeed. 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, are very inimical to breeding.

Recapitulation.—Hence it appears that the cause of sterility is chiefly, if not entirely with the female; that the impediments to breeding are, diseased state of the ova or womb, morbid irritation of the nervous system, and general relaxation; that all that art can do to prepare the female for breeding is to keep the system in a state of health, and occasionally to invigorate it, or raise it above the natural standard by mild cordials. Under the head of Introduction to the Second Part, the pernicious effects of powerful stimulants on the animal body are particularly noticed.

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; hence 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 such 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 it in the stomach.

Under the head of Introduction, page 156, the office of the liver is noticed. 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 conveyed more or less into chyle, which is conveyed to the mass of blood, and by the arteries 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 deterger of the blood, or some organ, is necessary to purify 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 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 intestines. We also find, that when the bile is forced into the stomach by vomiting, or when it is excessive, as in cholera morbus, it disorders the stomach, and produces the most distressing nausea and vomiting.

By the change from a cold to a hot climate, the secretions of perspiration and bile are greatly increased. Hence Europeans, on their arriving in a hot climate, 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 a hot climate, or the abuse of spirituous or vinous liquors, the effects of which on the liver are very similar, see Indigestion. In my Medical Guide for Tropical Climates, I have entered very fully into the consideration of this subject, under the head of Advice to European-Asiatics on their return to Britain.

A physician, who has resided many years in the East Indies, recommends a purgative pill chiefly composed of colocynth, elaterium, and juniper, as the best remedy for those affections of the stomach and intestines, attended with an indolent state of the liver, which in this country are termed *bilious*. This composition, he observes, not only removes superabundant slime and matter from the stomach and intestines, but rouses the action of the liver and kidneys. These pills, which the author has certainly found very beneficial in his practice, are sold under the name of the Bengal purgative and diuretic pills.

Recapitulation.---By the foregoing remarks, it appears that the complaints attributed to redundancy of bile are symptoms of indigestion, and that the treatment recommended for indigestion should therefore be adopted.

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 plenitude of the *veins*. The discharge of blood from the nose is in general confined to one nostril; it occurs for the most part in warm weather, and is generally preceded by head-ache, 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 the Aperient Mixture, No. 62, or the Neutral Purgative Salts, No. 2. After due evacuations from the bowels, the Cooling Powders, No. 89, may be taken two or three times a day, in *cold* water. Vinegar, diluted with water, should also be applied *cold* to the nostrils. If these means fail to check the bleeding, a dossil 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-ache, drowsiness, and redness of the face, it should be considered a premonitary 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 terminated 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-ache, 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 medicines and diet which tend to unload and quiet the system.

Recapitulation.---When a discharge of blood takes place from the nostrils, we should not have recourse to means of stopping it, without duly considering whether it is an operation of nature, or the consequence of diseased vessels. If the body be evidently in a plethoric state, the object of practice is to take care that the system be not too much reduced by it. When it occurs in young and healthy subjects, and particularly when preceded by head-ache or drowsiness, there can be no doubt but that it will prove beneficial. In elderly people in a state of health, it generally proves salutary. In fevers manifestly of a putrid tendency, the topical means should be employed to check the discharge, (see Typhus fever) : but in fevers where there is no disposition to putridity or decomposition, although general debility may appear to exist, the vessels of the brain may be overloaded, in which case the discharge of blood will prove beneficial. When the consequence of suppression of the menstrual evacuation, remedies should be employed as are calculated to increase the circulation in the lower extremities.

OF BLOOD DISCHARGED FROM THE BLADDER.

When blood is discharged with the urine in a plethoric habit, 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 inadmissible, 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, combined with a terebinthinate medicine, in these affections, has also proved particularly serviceable, as the following :

Take of infusion of the leaves of the bear's whortleberry * eight ounces, Canada balsam, three drachms ; mucilage of gum arabic, three ounces.---Blend the Canada balsam and mucilage well together in a mortar, and gradually add the infusion. Three tablespoonfuls of this mixture may be taken three times a day.

The Iceland liverwort, with the spirit of turpentine, as above

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* This infusion is made by steeping half an ounce of the leaves in a pint of boiling water for six hours.

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 71.

Recapitulation.---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 in a plethoric state, the loss of blood from the arm, the use of castor oil, the Antimonial Febrifuge Powder, No. 37, page 43, 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, either 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 spread on lint. The aperient Pills recommended page 47, should be taken about twice a week, for at least four doses; and if after the suppuration of the pills, 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.

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 vitiated 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 application of the emollient poultice, No. 112, the inflamed skin should be washed twice a day with rectified spirit of wine.

Recapitulation.---Boils being symptomatic of an unhealthy state of the constitution, the application of a lotion and leeches to disperse them is improper, unless it be situated in a place where suppuration would be attended with an unpleasant consequence, as the eye-lids, the ear, &c. They may be considered as indicating the use of alterative aperient medicines.

OF BOILS OF THE GUMS.

Causes.—Boils of the gums are the consequences of a fit of the tooth-ache, cold, external violence, and a partial disease of the jaw-bone and decayed teeth.

Treatment.—When a boil arises from the irritation of 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 90.

Partial inflammation of the gums terminating in suppuration or boils, is a very common complaint; 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 in case of much pain, or if 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.

This treatment should be adopted, although the injury may not be very extensive; for if the constitution should be in an unhealthy state, it may produce considerable mischief. 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 after the accident, affords instantaneous relief; and by keeping it a few hours in that situation, the mischief is certainly much di-

minished. 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.

Recapitulation.---This short account of burns and scalds points out the propriety of attending to the constitution as well as the local injury. Experience has taught us, that the most trifling accident in a bad constitution often produces the most serious mischief.

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 runs 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 the Cajeput Liniment, 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 has 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 attended to, in cases of bruises and sprains.

OF CANCER.

Under the head of Introduction, page 166, the author has noticed the causes, nature, progress, and symptoms of this disease, so that he has only to detail its treatment.

Treatment.—From the account given of the nature and cause of this disease, it will appear obvious, that during the first stage, our object is to rouse the action of the

absorbent vessels of the part, and thereby 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 ignition or heat of the morbid part. 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 unloading the system, if it should be in a plethoric state. In this stage, the best local application is 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-skin 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 be frustrated by it; and for this purpose I have found nothing answer so well as the 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 the 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, and the meat (which should be taken only once a day) should be fresh, and as little roasted or boiled as possible. 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 the author has found to answer this purpose better than any other preparation. The best method of using it is to form it into 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 (in the proportion of one ounce of the former to four ounces of the latter) 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 pallid, from five to ten grains of the oxyphosphate of iron may be administered two or three times a day.

Before decomposition has taken place, or the skin has ulcerated, preparations of iron are manifestly hurtful.

Wine should be allowed in such quantities as to give strength, but not to excite heat or fever; and laudanum must, at the same time, be occasionally employed to mitigate pain. (See Laudanum, page 34.) The mind 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 the author has found to succeed in several desperate cases, in which the operation of extirpation had been urged as the only and dernier resort.*

Recapitulation.—By the foregoing account of cancer, it appears that it is not a disease of the constitution, as generally imagined, but a local complaint arising from diseased absorbent vessels; that on its first appearance, means should be employed to rouse the action of the absorbent vessels for the removal of the accumulated mass of glandular matter, that the progress to suppuration is the consequence of the absorbent vessels being in a too diseased state to act, in which case a removal of the disease by the knife is to be recommended. That when the disease has advanced to suppuration, it may be cured by the application of preparations of iron, and by attending to the general health of the patient. That anodynes, as laudanum or hemlock, are serviceable by allaying the morbid irritation of the part, and in procuring rest.

OF CATALEPSY.

This very extraordinary disease attacks in fits 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 falling suddenly down, and remaining 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, the patient 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:

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* There is not a county in England from which the author has not received the particulars of cases of cancer, which have been cured by this mode of treatment. The Rev. Mr. Pole, of Hampshire, relates a case which had been pronounced hopeless, in which it fully succeeded; and the Very Rev. Dean Carter, of Ireland, states that he has found it answer in a great number of instances.

as fear, anxiety, anger: by intense thought, worms in the stomach, and excesses of any kind.

TREATMENT.—If the patient be of a plethoric habit, or the face very red, or 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 necessary, and the Mustard Poultice, No. 111, applied to the feet.

Two or three tablespoonfuls of the following mixture should likewise be given every four or five hours:—

Take of assafœtida 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 thould be shaved, and well rubbed with the following liniment:—

Take of oil of amber, four drachms; spirit of hartshorn, half an ounce; oil of rosemary, two drachms.

Slight electric shocks passed through the head have in some instances been of service in weakly subjects; but blisters do not appear to have been attended with any beneficial effect.

Recapitulation.---Catalepsy it appears is a disease of the nervous system, occurring in opposite states of the constitution, viz. in the plethoric and robust, and the debilitated and reduced. That like epilepsy, it depends on a peculiar state of nervous system; and like it, is brought into action by whatever disturbs the general health, either by increasing the vigour of health, or by reducing it. That the treatment must be regulated by the state of constitution. Where plethora prevails, bleeding and purgative medicines are chiefly to be depended upon; and when the system is in a debilitated state, stimulants, as the mixtuee of assafœtida, electricity, &c. may prove beneficial. This disease, however, like epilepsy and hysterics, is often aggravated by officiousness, and especially by frequent exhibition either of medicine or food.

OF CATARACT.

This is a species of blindness, occasioned by an opacity of

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* 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.

what is termed the lens 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 lens, 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 respectable surgeons give the decided preference to depression of the opake lens, an operation certainly less painful and hazardous than extraction, and generally answers, for if the lens happens to be too soft to be wholly depressed (which cannot always be predetermined), it is afterwards frequently removed by absorption, 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 to 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, the author has 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 wine-glassful 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 asarabacca snuff, by increasing the secretion from the nostrils, and exciting sneezing, may likewise prove very beneficial; but if sneezing occasions head-ache, or pain in the head, it should not be encouraged.

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-ache, redness of eyes, or giddiness, the loss of blood either by cupping or venesection, or a blister to the nape of the neck, will also be proper.

Electric sparks may likewise be applied to the ball of the 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 extraction. The admiral agreed to his performing the operation on one eye first, and in case it answered, he promised to allow him to operate on 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. And since the publication of the last edition of this work, the author has met with cases in which a similar treatment completely succeeded in removing the diseased lens. In the 11th and 12th Numbers of the Monthly Gazette of Health, this practice is illustrated by Dr. Balfour of Edinburgh. A representation of the instrument used for rubbing the eye and other parts is given in the chapter on Rheumatism.

Recapitulation.—The loss of vision in this complaint, arises from diseased structure of the lens, which, in consequence of becoming opake, mechanically obstructs the rays of light to the optic nerve. In this case, we are to consider the lens as an extraneous body, and,

in order to restore sight, its removal is absolutely necessary. This may be done by mechanical means, and by nature. The mechanical means are two. The most simple, and not less successful, is that of depressing the diseased lens to the bottom part of the eye, from whence it seldom ascends, and, in course of time, is frequently absorbed, and, in case it should rise again to its natural situation, after the cyst has been punctured in the operation of depressing, it is more likely to be removed by the absorbent vessels. The other method is, by making an incision though the coat of the eye, and removing the diseased lens entirely. This operation is not much more painful, but more mischief being done to the eye, the object is sometimes frustrated by subsequent inflammation, and thickening of the transparent coat. The removal by nature is by means of the absorbent vessels, in which she is to be assisted by art, in rousing the action of the absorbent vessels by mercury, by friction, by sneezing, and by putting the system in a state of health.

OF CATARRH.

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*.

Cause.—This disease is evidently produced by long or sudden exposure to cold air.

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, and the constitution be in a plethoric state, 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, or head, 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 83, should be employed as the common beverage. See *Cough*.

Recapitulation.—Trifling as this complaint is generally considered, it appears, by the foregoing remarks, that it is often the forerunner of very serious diseases, as inflammation of the brain, lungs, and inflammatory fever, and in scrofulous habits, not unfrequently the exciting cause of consumption. The practice, therefore, to quiet the system on its first attack, by aperient and sudorific medicines, and in plethoric habits by bleeding, should, in every instance, be attended to, in order 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 off, 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 by 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, and if tumefied or inflamed, the best application is, the ammoniacal plaster, which will speedily restore the skin to health; but if this cannot be readily obtained, the part may be rubbed with Cajeput Liniment. 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 the ammoniacal plaster spread on leather will effect a cure. An ointment composed of equal parts of nitrated quicksilver ointment and olive oil, is also a very excellent application for chilblains in every stage, and 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 lint; 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 be most liable to them, it will also be advisable to cover them, either with the ammoniacal or 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.

Recapitulation.---The mischief produced by intense cold (termed chilblains) like that produced by fire and bruises, should be attended to in the first instance, for its progress depending on the state of constitution, neglect may be productive of the most serious consequences. Chilblains being very obstinate of cure, the preventive means should be employed by those who are subject to them.

CHOLERA MORBUS.

This disease consists in excessive secretion of the bile, occasioning violent vomiting, purging, and pains in the bowels. Generally disturbed, 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 the irritation of the liver, produces an excessive secretion of bile.* In people whose livers are naturally

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* Whenever any of the secretions of the body are excessive they always possess a morbid quality.

very irritable, it may be produced by whatever may disturb the general health, as excessive drinking, exposure to cold, &c.

Treatment.—All the secretions of the body, when considerably increased, possess more or less an acrid quality, and that of the bile is particularly; the first object in the treatment of this disease is, therefore, 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 administered in a half pint of gruel or starch jelly, by way of clyster. If the bowels swell the belly should be fomented 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 crude opium may be administered in their stead.

When the vomiting is not very troublesome, Dr. Fordyce recommends from twenty to thirty grains of rhubarb 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 inflammation in the bowels. 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 pain 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 water 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.

Recapitulation.—This disease consisting in an excessive secretion of acrid bile, producing vomiting and purging, the object is, to prevent its doing mischief to the intestinal canal. For this purpose, we should dilute the acrid bile by a mild drink. The next object is, to produce a state of the intestines not favouring inflammation, by reducing the system in case of plethora, increasing the circulation in the skin and extremities, by exciting inflammation of the skin of the belly by blisters, and by keeping the feet warm, and by allaying internal irritation by the use of laudanum, both by mouth and clyster-wise. To promote these views, the warm bath may also be advantageously employed. The patient should not encourage vomiting, as it is likely to keep up the irritation in the liver and intestines.

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 morbid irritation of intestines from inflammation. If the pain be acute, and especially if attended or preceded by *rigors* and *fever*, inflammation may be suspected.

Causes.—Austere, acrid, or indigestible aliment taken into the stomach; the application of poisons, as lead, &c. and worms and costiveness; are the most frequent causes of this disease.

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 warm bath, 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 *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.

DISTINCTION.—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.

Recapitulation.—The treatment of colic being very different to that of inflammation of intestines, it is of great consequence to determine the nature of the disease before a decisive practice be adopted. In cases of inflammation, there is generally fever, pain on pressing the bowels, a sensation of great heat in them, and thirst, which are generally preceded by rigors. If colic occurs in a plethoric habit, it may bring on inflammation in the intestines, and, therefore, in such a case, it is safe and good practice to reduce the system. Both in colic and inflammation, the warm bath is a valuable remedy, and should be as frequently repeated as the strength of the patient will admit of. As this disease is a very serious one, the preventive means should not be neglected by those who are liable to it, and on the first notice of its attack, a warm aperient medicine should be taken, as the Compound Tincture of Senna, No. 8.

CONSUMPTION OF THE LUNGS.

According to the morbid appearances the lungs exhibit on dissection, this disease may be divided into three species.

The first is the scrophulous species, as marked by the existence of tubercles in the substance of the lungs.

The second is the membranous species, occurring in habits predisposed to erysipelas.

The third is the consumption of old age, being the sequel of 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, and this opinion prevails so strongly in the southern parts of Europe, that consumptive patients, particularly in Portugal, will hardly be admitted into a lodging-house, when they arrive from this country under the disease. The bodies, also, of consumptive patients are not allowed to be opened, and even their clothes are ordered to be burnt immediately after 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 suspicion of it has 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 Scrophulous Consumption of the Lungs.

The causes and nature of scrophula are noticed under the head of King's Evil.

Causes.—Any disturbance of the general health in a scrophulous habit, that produces irritation of the lungs, or whatever may occasion an increased determination to the lungs will act as an exciting cause of this disease Of these the most frequent is catarrh, or common cold.

Symptoms and progress.—This species of consumption often comes on very insiduously. In consequence of the irritation in the lungs, scrophulous lymph is partially deposited in their cellular substance, forming what are termed tubercles; which mechanically 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 oscasioning hemoptœ, 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-ache, giddiness, disturbed sleep, and a variety of other symptoms†.

But, in many cases, deposition of scrophulous lymph in the cellular substance of the lungs, produces 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 distention of blood-vessels, unattended with cough or pain; and this will continue for many winters, be-

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* In every case of consumption that has followed hemoptœ, 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 had happened. Spitting of blood, when it terminates in consumption, is always preceded by the symptoms indicating a loaded state of the cellular substance of the lungs, in consequence of deposition of scrophulous lymph.

† Drowsiness, head-ache, and giddiness, are generally the first symptoms of this disease.

fore active disease takes place; in the same manner as we find a similar disposition in the glands of the neck, though it occasions their swelling, does not for many seasons come to actual suppuration: such 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 the inflammatory action has been confined to one collection 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; but 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 the tubercles, the patient becomes affected with cough, attended with pain 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 small aperture*, into the air-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, till a great proportion of the substance of the lungs is destroyed, and the organ 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 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

* The ulcerated surface is not exposed to the action of a vapour taken into the lungs, as is generally imagined.

local irritation as well as the constitutional symptoms, are so far suspended, that the patient considers himself in a convalescent state. The breathing and expectoration become easier, and the appetite improved. A ray of hope is thus enjoyed, though it is 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 membraneous 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.

Collections of matter are often discharged between these last

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* 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. Scrophulous pus may also be easily distinguished by a microscope.

† It may be worthy remark, that during respiration in a state 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 in a full inspiration, in order to ascertain whether their capacity is diminished by organic disease. The feeling of such patients induce them to do it in that cautious and slow manner, 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.

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 reacts on the organic disease or affection of the lungs *.

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-ache 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.

When the lungs, by the progress of the disease, become no

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* 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, run alarmingly high. The recurrence of diseased action, in a part which 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.

longer capable of supplying a sufficient quantity of oxygen to the system, the hectic fever assumes its peculiar characters. Nature seems to make a diurnal effort to supply the deficiency of oxygen, by attracting it from the atmosphere, from the surface of the body, especially those parts where the skin is thinnest, viz. the lips, the 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 redness and heat*: while the other parts not exposed to the air continue pale and cool. But when the functions of the organs immediately engaged in 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, pains in the bowels, and obstinate purging, sometimes tinged with blood, and attended with tensions of the abdomen. The brain seems to be the last part that gives way; and hence the intellectual

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* 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 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.

functions remain unimpaired, till within a few hours of dissolution. When the powers of life begin to lessen, the patient feels a disposition to dose, and seldom enjoys sound sleep. Towards the termination, he is generally heard to mutter; and it is not unusual for him to be much affected with the night-mare, and even to attempt to walk in his sleep.

It has been the opinion of some writers, that consumption 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 exhibited the least mark of disease; and, latterly, I have had the opportunity of examining the livers of several patients, whose cases had been pronounced diseases of the liver. Notoriety is the order of the day; and to obtain this, medical men, in obscurity, have broached the most ridiculous doctrines respecting disordered digestion.

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 opprobia of medicine; but my experience has taught me, that there is no disease in this 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.

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 subject be plethoric, or the heat of the body above its natural standard, 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. The intestinal canal should be cleared out by Epsom salts, in small doses, either dissolved in whey or almond emulsion. This medicine should be occasionally repeated; for nothing so much aggravates the disease as costiveness*. For the purpose of exciting a degree of external inflammation, or

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*Costiveness is generally a forerunner of the disease, and, in many cases, seems to have been the principal exciting cause.

what is termed counter-irritation, a stimulating plaster as the Euphorbium, should be applied, either between the shoulders, or over the breast-bone, and if one side be evidently more affected than the other, one may also be applied over the seat of the pain. If this plaster should not produce an eruption of the skin, it should be rendered more active by sprinkling over the surface a little emetic tartar. When the eruption has maturated, the part may be dressed with the spermaceti ointment, for two or three days, according to the degree of inflammation present, when the plaster may be re-applied after the surface of it has been scraped off, so as to remove the emetic tartar. This plaster I have found more efficacious than either blisters or a seton.

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 remove the morbid fulness of the vessels of the lungs by occasioning a determination of blood to the skin and extremities. 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:

Take 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:

Take of the aerated kali, two scruples; almond emulsion, six ounces.—Mix.

If these medicines fail to produce perspiration in a sufficient degree, it will be proper to have recourse to 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 an healthy action throughout the body.

When by these means the system is reduced below its natural standard, and the irritation of the lungs is in consequence abated, the hedge hyssop may be administered with considerable advantage. Since the publication of the last edition of this work, the author has given this herb a very extensive trial in diseases of the lungs, and the success that has uniformly attended its use, induced him to publish a small treatise on its virtues. The best form for its exhibition in pulmonary complaints, is the oxymel, of which a dessert or tablespoonful may

be taken twice a day in a wineglassful of the decoction of Iceland moss, No. 117. This mixture will facilitate expectoration, quiet the nervous system, promote digestion, and keep the bowels in a regular state.

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 windpipe and bronchial ramifications. It is, in this case, of the greatest consequence to allay it, as the cough must tend to increase the organic mischief. With this view, three or four drops of laudanum may be taken in each dose of the oxymel of the hedge hyssop.

The inhaling of medicated vapours, particularly of the resinous gums, has been recommended with the view of producing healthy digestion of the ulcers; but as the ulcerated surface of a broken vomica is not exposed to the action of the vapours received into the lungs, as the practitioners who suggested the remedies supposed, they cannot succeed in producing such a desirable effect.

In America, mercury has been found by Dr. Rush, to succeed in pulmonary consumption. Before we can venture on the exhibition of this active remedy, the system should be nearly free from fever. When the patient is in a state of convalescence, a small quantity of mercury introduced into the system generally succeeds in hastening the recovery of the patient, but when the disease is in a state of progress, it uniformly increases the irritation of the lungs, and of course the cough and hectic fever. The exhibition of an emetic dose of ipecacuan powder two or three times a week, is also much extolled as a remedy for consumption, and by producing a determination of blood to the surface of the body and to the extremities, and by relieving the lungs of a quantity of mucus, in consequence of being compressed by the action of the diaphragm during vomiting.

Regimen.—The diet should be such as tends to keep the system in a quiet state. Spirituous and vinous liquors should therefore be strictly prohibited. In the first stage of the disease a diet of vegetable jellies, such as the arrow root, tapioca, sago, oatmeal, and light puddings, and milk, according to the taste and inclination of the patient. When the system has given way to the disease, animal food is absolutely necessary. The meat of young animals should be preferred, and taken in as

raw a state as the stomach will bear it. The use of animal food is prohibited by many writers on this disease; but in the advanced stage of the disease the patient will sink in a most rapid manner if he be deprived of it, and thereby lose the chance of recovery. A strong objection against an entire vegetable diet, is the quantity requisite for the support of the system is so great as to distend the stomach to that degree, as to oppress the lungs. Even when animal jellies are used, I have found them not to digest so readily in many stomachs as meat in an underdone state *.

Dress.—The patient should, from the first attack, wear flannel next the skin, to keep up a sufficient secretion of perspirable matter, and prevent the injurious effects which sudden transitions are apt to produce. The highest parts of the house will be the most eligible residence, and particularly for sleeping.

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. The exercise of digging in gardens is much extolled by some writers; but this exertion of body is too great; and the moist exhalations that attend are likewise injurious. Swinging is often beneficial, and is similar to sailing. 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. 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, 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 preju-

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* No set of people eat more animal food than butchers, and yet they appear exempt from consumption of the lungs, although their bodies are much exposed to a damp air.

dice exists against the air of great cities. In the first stage of the malady, if the air possesses no stimulating property, it is of little consequence; but after suppuration has taken place, it is of the first importance to make a change, from a crowded and confined situation to a salubrious spot. The air being generally in a constant state of rapid motion, the air of large places soon undergoes a change. 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.

A plan has lately been proposed to cure consumption by keeping the patient in an atmosphere of a regular temperature, by conveying into the room heated air. By keeping up a certain degree of evaporation from the body it may prove beneficial, but the inhalation of warm air aggravates the disease of the lungs, and is otherwise unpleasant to the patient. In the last stage particularly, it accelerates the progress of the disease. It is on this account that consumption proves so fatal during summer in this country, and in hot climates. Cold air, although hurtful by checking the secretion of the skin, is very pleasant to a consumptive patient, and by conducting superabundant heat from the lungs tends to quiet the disease. A consumptive patient also requires the room to be well ventilated. The changes in the temperature of the atmosphere during winter, by producing irritation in the lungs, is the exciting cause of consumption, and the heat of summer hurries on its incurable stage.

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 hopeless, 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 had been pronounced incurable, and really appeared to be hopeless, who 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 attacks, if not in a situation to endanger life, should therefore 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.

Membranous Consumption.

This species consists in an erysipelatous inflammation of the internal membrane of the windpipe and bronchial ramifications. By an erysipelatous constitution, is meant 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 such a constitution, is a very frequent forerunner of this species 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 become 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 scrophulous 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 have died of 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. If the vitality runs 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; extract 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 Canada balsam, or balsam copaivi, one drachm; mucilage of gum arabic, one ounce; oxymel of hedge hyssop, one ounce; almond emulsion six ounces. Rub the balsam with the mucilage in a mortar, till they are well blended, then add by degrees the other ingredients.

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.

When the system is free from fever, tar-water may be taken with great advantage. If these remedies should fail sufficiently to correct the erysipelatous disposition of the habit, recourse may be had to mercury in the form of calomel, half 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 above mixture.

If pain of the chest or tightness of breathing come on, the Euphorbium plaster may be applied between the shoulders or over the breast bone.

The observations made under the heads of Dress and Exercise, page 230, apply with equal propriety to this species.

Pulmonary Consumption of advanced Age.

This form of consumption is frequently the sequel of asthma, constitutional cough, and dyspnœa of long standing. This disease is always very slow in its progress; and unlike the scrofulous species 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 depends on the state of the air, 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 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 are diminished, 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 bronchial ramifications are loaded with mucus; and the capacity of the pulmonary artery I have always found more or less enlarged, and its branches greatly distended with blood. Beneath the pleura pulmonalis there is a collection of very small, hard, dark-coloured tubercles; and the nutrient vessels

* 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.

of the lungs much 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 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 drachm; 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 counteracting 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, half an ounce; prepared ammonia, fifteen grains; paregoric elixir, six

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* 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 Bissett, 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 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.

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 continued longer than six hours, and the part should afterwards be covered with the leaf of the cabbage, previously softened by steeping it 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 part longer than six hours.

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 fox-glove, 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.

Recapitulation.----By the preceding account of consumption it appears, that the disease of the lungs, producing emaciation of body, or consumption, is of three kinds :----one seated in the substance of the lungs, which is of a scrofulous nature; the other in the membrane, lining the windpipe and its branches, which is of an erysipelatous nature; and the last arising from ossification of arteries, and morbid irritation of the membrane of the bronchial ramification, occurring in elderly subjects. That the nutrient vessels of the lungs are small, and, therefore, do not possess the same power of recovering diseased structure as other parts of the body.---That the chemical process going on in them of attracting vital air, and the dilatation and contraction during respiration, are very unfavourable for the process of healing; and, on these accounts, disease of the substance of the lungs when advanced to suppuration, generally terminates fatally. That it is in the early stage of the disease that remedies are likely to succeed in restoring the patient to health. That the most efficacious medicine is the oxymel of the hedge hyssop. That the application of the Euphorbium plaster to the chest is necessary. That the diet should consist of vegetables with a small proportion of animal food underdone. That all stimulants, or spices, should be avoided in the food. That the exercise should be gentle, and flannel should be worn next the skin. That in the

erysipelatous species the treatment does not materially differ to that recommended for the scrofulous species, except the addition of balsam of copaivi or Canada, which corrects the secretion of the membrane of the windpipe and its branches. That the treatment of the consumption of advanced age must be regulated by the state of the system. That steel and other tonic medicines are necessary in this species, especially when great debility of body is indicated by swelling of the legs, &c.

OF CORNS.

Corns consist in a hard thickening of the skin, in consequence of pressure.

TREATMENT.—The callous 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 covered with the compound ammoniacal plaster spread on leather. But if this cannot be obtained the Diachylon Plaster, No. 58, may be employed. The occasional cause should be avoided, by wearing easy 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 on 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.

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.

In the Monthly Gazette of Health, a correspondent recommends a piece of raw beef of the size of a crown, to be applied over the corn, during the night, which in the course of one week, he states, will effect a cure. The corny substance is to be removed by a knife as it becomes soft.

OF COSTIVENESS.

The effects of costiveness are head-ache, giddiness, disagreeable taste in the mouth, a disrelish of food, and sometimes the piles.

CAUSES.—It is generally the consequence of a sedent

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 generally the case, three or four grains of calomel may be taken every third night, for 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 ecphratic 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 56, 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 Aperient Pills, No. 46, page 47. 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 distention of blood-vessels; this state of bowels favouring plethora, should be in them particularly guarded against by taking occasionally three of the Aperient Pills, No. 46, page 47, which will not only empty the intestines, but also relieve the head, by producing a determination of blood to the bowels and extremities.

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 aware of. A blister over the breast bone, the loss of blood from the arm, the occasional use

of the Aperient Mixture, No. 62, the Cough Mixture, No. 66, or the Lettuce Lozenge, a 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 oxymel of hedge hyssop, in the dose of a tablespoonful two or three times a day, is an excellent remedy. If this oxymel should prove too heavy for the stomach, the following pills may be substituted for it;—

Take of extract of hedge hyssop and squill pill, of each one drachm; divide into 24 pills, of which two or three may be taken twice a day.

The lettuce 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, and Consumption of elderly people.

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. If the patient be in a debilitated state, free from fever, of a pallid 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, in which case the treatment recommended for the Consumption of advanced age, fol. 234, will be proper.

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, with ten drops of ipecacuan wine 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. See Almond Emulsion, page 84.

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 bezoin, &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.

Cough is not only the effect of obstructed perspiration, but proceeds from various other causes, particularly in children and elderly subjects, such as teething, bowel complaints, fever, effusion of serum, &c. &c. Recent cough is generally considered a very trifling affection, but 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 cough. 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.

Recapitulation.---Cough is therefore a symptom of irritation either in the substance of the lungs, or the internal membrane of the windpipe and its branches. This irritation is of two kinds: one being attended with inflammatory action, in which case there is fever and pain on coughing, and seldom any expectoration. Here blisters, loss of blood, and the use of purgative and sudorific medicines, are necessary, with a low diet. The other is from an opposite state, viz. relaxation, in which case there is a considerable quantity of mucus poured out into the branches of the windpipe, and the cough is here an effort to bring up the phlegm. This case is noticed under the head of Consumption of elderly People. Another kind is from

effusion of serum in the chest, and particularly the substance of the lungs, which is noticed under the heads of Sub-irritative Asthma and Dropsy of the Chest. In these latter cases, opiate medicines, by checking expectoration, are dangerous remedies. In consequence of the tender structure of the lungs, and their great vascularity, cough is a disease that demands great attention on its first appearance.

OF COW-POX.

The matter for communicating this disease should be taken in an early state of the pustule, generally about the fourth or fifth day after the inoculation, by dividing 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 not to draw blood. On the third or fourth day the part inoculated 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 extracts, No. 30, will be proper.

From inattention to these particulars it is probable that the reports of the small-pox succeeding 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 violent opponents of vaccination, that it is often succeeded by a cutaneous eruption resembling the itch: but the experience of disinterested practitioners has most satisfactorily proved the assertion to be false.

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 tea spoonful 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 patient be of a gouty habit, or the spasm be obstinate. The Gout Mixture, No. 69, or Tincture of Ginger and Camomile, No. 7, 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. 89.)

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, Nos. 31 and 14, will be proper. In this case particularly 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 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.---On account of the situation and acute nature of this disease, *immediate* and *active* remedies are requisite to 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. If the skin should continue *dry* and *hot*, five drops of the antimonial wine may be administered every three or four hours, with the Saline Mixture, No. 78; and in case they 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 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 hooping-cough, is also a very valuable medicine in this disease. If the system be in a plethoric state, which is generally the case, the loss of blood from the arm, or by cupping, will be necessary, provided the bleeding by leeches has not sufficiently unloaded the system of blood-vessels. Cold water applied to the head, and to the throat by means of old linen, is also an important auxiliary to the above means.

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 generally 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 re-

peated 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 Discutient 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.

For the means of stopping the flow of blood from a divided artery, see page 105.

OF DEAFNESS.

The causes of deafness are numerous. It is often produced by an accumulation of the secretion of the ear, termed wax; in which case, the ears should be syringed every morning with warm soap and water, till the hardened wax be entirely removed, and a little wool or cotton moistened with a few drops of the following mixture, introduced after each time of syringing, and continued for some weeks afterwards, to prevent a recurrence of the accumulation of wax:

Take of camphorated olive oil, half an ounce; oil of tartar, thirty drops.---Mix well together, by shaking them in a vial.

When deafness arises from palsy of the auditory nerve, electric

sparks to the ears, a blister behind them, and the use of the Asarabacca snuff, page 85, 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, as 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 warm water every morning will also prove very beneficial, and for this purpose, the head should be shaved. A flannel cap should be worn during the night, and a wig lined with flannel in the day-time.

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 Egyptian honey, two drachms ; rose-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 the use of a flannel nightcap.

Deafness is frequently the consequence of a deficiency of the secretion of wax ; when the following liniment will prove beneficial :

Take of oil of turpentine, two drachms ; oil of almonds, six drachms. —Mix. Two or three drops to be dropped into the ear, or applied by means of a little lamb's wool.

In the first number of the Monthly Gazette of Health the Cajeput Oil is much recommended for deafness. It is also much extolled in the foreign journals, as a remedy for this disease. It is directed to be applied within the external ear by means of fine wool, and the part behind the ear to be well rubbed with the Cajeput Liniment, No. 5.

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.

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.*

Symptoms.—The first symptoms of this disease are, dryness of the skin, an increased discharge of urine, and great thirst. The urine, on becoming excessive, contains a sugary matter, and often emits an odour resembling that of violets. The stomach is sooner or later disordered, and 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

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* 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 also much troubled with inflammable gas. This generation of water, 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, in some degree, possesses a bibulous quality.

† Dr. Trotter observes, that the majority of persons he has known afflicted with this disease, were lovers of the bottle. "I suspect," says

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 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. This disease probably arises from a morbid condition of the skin, in consequence of which, perspiration is entirely checked, and the secretion of the kidneys is thereby increased to carry off the excess of serum of the blood. The skin becoming dry, absorbs moisture from the atmosphere, and increased action of the kidneys produces, sooner or later, disease in their structure. The urine is thereby altered in its quality, yielding a violet odour, and on evaporation, a saccharine matter.

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 others, who have 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.

Mr. Chavasse, surgeon, of Walsal, states that he 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

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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 regularly or otherwise."

* Had Dr. Rollo properly examined the sugary matter, he would have found that it does not possess any vegetable property, except that of being sweet to the taste. Like other animal productions, it putrifies and yields ammonia.

small dose of five drops of this medicine should be begun with, and repeated three or four times a day, in a little cold 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 it, 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 the Aperient Pills, 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 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 the author has found to succeed in this disease much better than the Peruvian bark. (See Rhatany Root, page 85).

For the purpose of increasing the circulation of the blood in the skin, and exciting perspiration, which are of the first importance in the treatment of this malady, the warm-bath to the degree of 102 or 104 should be used every day, and a flannel waistcoat worn next the skin. 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

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* This whey is made by boiling a drachm of alum in a pint of milk.

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 diabates; and several cases, in which it fully succeeded, have been published. Some practitioners object to this treatment in consequence of the 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 the 8th No. of the Monthly Gazette of Health some cases of diabetes, are published, illustrative of the good and bad effects of this remedy.

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.

Recapitulation.—The increased secretion of kidneys constituting diabetes, being the consequence of suppressed perspiration of the skin, the object of practice is to restore to the skin this important office by producing a determination of blood to it, by means of the warm-bath and sudorific medicines. Bleeding experience has taught us is also a powerful remedy in excitng this cuticular discharge. With this treatment such other remedies and diet may be employed as the state of the general health may point out.

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 morbific matter to the bowels. When the stools appear *white* like cream, the disease is called *cœliac 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 inflammatory disposition of the intestines, or from relaxation and debility; 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 of astringent 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 71, or two teaspoonfuls of the tincture of rhatany 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 87, 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 71), 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 observes 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 diarhœa on the system when attendant on fever. In these 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, page 32.

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 *fœces*, which in dysentery is rare, and only in a hardened form; and also the want of that fœtor 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 139 and 141.

Recapitulation.—The irritation of intestines in this disease is of three kinds, viz. inflammatory action, debility, and organic mischief, in the substance of the intestines or ulceration. The first occurs in plethoric constitutions, the second in debilitated systems, and the last in elderly subjects. In the first instance, it should not be checked, and means employed to reduce the system by bleeding,—(if acute pain and rigors and fever come on, we may conclude inflammation has taken place, in which case the treatment recommended for inflammation of intestines should be adopted). In the second case after removing offending matter from the intestinal canal, astringents should be employed; and, in the last case, the mixture of lime water, &c. is the best remedy by quieting the local disease.

OF DROPSY.

This disease consists in an infusion 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 enlargements 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.

Some physicians supposing 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 af *anasarca* are, an uniform pale, and often shining distention, 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 gruadally 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 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

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* 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.

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 62, with a wineglassful of the Tonic Mixture, No. 77, page 62, 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 obstructions. 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.

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 of 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 conditition 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 considerable quantity from the lungs. (See Flatulence.)

In advanced cases of general dropsy, the author has found

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* These means should not be employed without the sanction of an experienced practitioner.

the inhalation of vital air with the internal use of steel and rhatany, to prove completely successful in restoring the patients to health. To produce any salutary effect in this disease by the vital air, the patient should at least inhale four gallons daily. In the fourteenth number of the Monthly Gazette of Health, directions are given for making this air, by a simple apparatus.

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 53, 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 menstrual 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.

Recapitulation.—By the foregoing account of Dropsy it appears that its causes are numerous, and that the accumulation of serum is more frequently the consequence of some other disease than a *primary* affection: that it is 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 under the head 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.

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 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 fæces, 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 dis-

order, the internal coats of the colon and rectum have been found affected with inflammation and its consequences, viz. ulceration, gangrene, contractions, and thickenings.

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 system is in a plethoric state, the loss of blood from the arm may be necessary; but when it is in the first instance not attended with fulness of habit, or inflammatory action, or when the constitution is much reduced by it, it will not be proper. If the pain in the bowels be violent, a warm-bath and a large blister to the abdomen will be necessary. The diet should chiefly consist of vegetable jellies, as arrow-root, sago, tapioca, &c. &c.

When the violence of the first symptoms has abated, and the system in a quiet state, the following powder, taken three times a day in a teacupful of the decoction of the Iceland liverwort, will 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 give way, eight grains of the compound cretaceous powder, and five drops of laudanum, may be substituted for the rhubarb-powder.

Several astringent medicines are recommended in 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 obstructions or ulceration of the intestinal tube 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 application of the Euphorbium or Burgundy Pitch plaster over the bowels, will also be proper, and may prevent serious mischief. 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 had 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 92), 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 would 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 total loss of sensation, and ending in a state of insensibility and apparent sleep. The patient, on becoming sensible, complains 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 earthy 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 distention, 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 ‡.

In children, epileptic fits are often attendant on dentition, and precede the eruption of small-pox and measles, and some-

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* 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.

† 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.

times 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:—

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.

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* 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.

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 suspended 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 all deserving of trial; for, in the treatment of so distressing a complaint, no plausible remedy should be left untried.

In the first volume of the Monthly Gazette of Health, several remedies are recommended by eminent physicians of the Continent, which should be employed if the above treatment should not succeed.

If the patient be affected with pains in the head, a seton 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 constitution of the patient; if he be debilitated, it should be nutritious, but no

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 anti-spasmodic.

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 ex-

citing impressions still more powerful. Upon this principle it was, I apprehend, advised by Pliny, for the 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 Intellectual Functions of the Brain, page 153.)

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.

Recapitulation.---The irritation of the nervous system in this disease arises from organic mischief or partial disease of the brain, or from the irritation of worms in the intestines. In the latter case vermifuge medicines, (see Worms) and tonics will succeed in preventing a recurrence of the fit. When the cause is in the head the object is to keep the system in a quiet state, and for this purpose a seton in the nape of the neck is the most powerful remedy;* which, with such medicines and diet as the state of the body, with respect to debility and fulness, may indicate; will answer best.

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 9.

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* Seton is the only remedy I have known to succeed in the permanent cure of Epilepsy.

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, p. 68.

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 68.

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 89.)

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 thereby 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 9, 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 61. 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, p. 56, will prove a powerful auxiliary.

Dr. Gales, a physician residing in Paris, has lately recommended the application of sulphureous vapours to the body, as an effectual remedy for *all* chronic affections of the skin. The Doctor has presented the author with one of the machines employed by him for this purpose, in order that the practice may have a trial in this country.

In the fourth number of the Monthly Gazette of Health, a very interesting article on the prevention and cure of constitutional eruptions of the skin appears, which the author recommends to the serious perusal of his readers, who are subject to such affections.

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.

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. which, although they differ in appearance, progress, and extent, seem to arise from the same cause, viz. a vitiated state of the humours from predominating 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 are much disturbed. If the child be of a gross habit of body, the Basilic powder will also be proper, as directed, No. 36, p. 42. As the milk of the nurse is often in 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. 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, p. 145, and Thrush, p. 146.

Cutaneous diseases have claimed a large share of attention from some medical theorists, who have given every blemish

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* The sassafras cocoa, noticed page 89, affords a very nutritious and corrective breakfast and evening repast.

a fine sounding name, and enumerated species and varieties which only existed in their imaginations. Their elaborate classifications have been attended with no practical utility whatever; for the authors who have expressly written on them, have been the most unsuccessful in their treatment. In all cases of eruption the first point to determine is, whether the eruption be constitutional or local; and if the former, whether it be the consequence of fullness of the system, or of debility and bad digestion. When the constitution is in fault, the eruption is to be considered 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, p. 68, 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 144.

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 not uncommonly 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 fœtal state, remaining entire.

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 teaspoonful 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, organic disease, or morbid irritability of the heart, the Euphorbium plaster may be applied over the breast bone, and much bodily exertion, or whatever tends to hurry on the circulation, should be carefully avoided.

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 preferable. Haller has related a story, where a disposition to fainting was conquered by a great exertion of the

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* 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.

will; and almost every person has seen temporary fits 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 eye, the Astringent Eye-water, No. 101, page 67, 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 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, p. 61, 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 gene-

rated in the *intestines* is of a very different kind, being *inflammable air*, and evidently not altogether the effect of indigestion. The 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 inflammable 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 should 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 fœtid †, 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 combinations 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 it 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 quantity; 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

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* Flatulentia acida, Spec. 1. Sauv.

† Flatulentia nidorosa, Spec. 2. Sauv.

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 exhalant 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 the author never knew a nervous patient who did not always find himself much benefited by a free expulsion of it. Even violent head-ache, 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 compound 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, the author thinks, 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 head-ache and rheumatic affections on change of weather, and particularly on the approach of rain. (See Head-ache.)

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 morbid 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 9. 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 a wet napkin for two minutes, has, in several instances, proved highly beneficial, probably by allaying morbid irritation of the brain, and of course, of the whole nervous system.

It is scarcely necessary to observe, that the patient should abandon the use of spirituous or vinous liquors; if 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 followed, but I have not found that the patients have been the least 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, as the soda water, I have found an excellent palliative, and evidently to correct its fœtor. People that overload their stomachs with animal food are certainly more troubled with this species of flatulency than those who chiefly live on vegetables. A proper admixture of vegetable and

animal food the author has found best 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, afford flatulent patients a temporary relief, by expelling the air contained in the intestines; they however, afterwards, supply it in greater quantity to the blood, and a patient, encouraged to persevere in the remedy from the 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, and Indigestion.)

OF GOUT.

Under the head, Introduction to the Second Part, the author has described the human body as consisting 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 light, 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 generally preceded by symptoms of indigestion, as flatulence, loss of appetite, cramp in the stomach, &c. and sometimes by head-ache, 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 ge-

* 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 controul.

† 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!

neral health of the patient be good, or 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. 62, page 58, or the Cathartic Pills, No. 84, page 63, 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.

A saturated infusion of the hedge hyssop *(Eau Médicinale)*, 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 generally returns again in a few weeks, and if the gouty paroxysm be kept off by a repetition of the medicine, a degree of nervous debility is induced, occasioning palsy, or not unfrequently sudden death. The application of cold water to the part in a debilitated 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 guaiac gum 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 60, 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 fit; 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

* 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.

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, as 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 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 is 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.

Dr. Wilson, of Yoxford, in his Treatise on Gout, recommends a Tincture, which he states to manifest a specific action on gout, and to improve the general health. This tincture the author has found to allay the pain, and speedily to restore patients to health. Some cases of cures, effected by it, are published in the Monthly Gazette of Health.—Dr. Balfour of Edinburgh recommends friction and percussion as the most effectual means to cure the fit and prevent its recurrences; and several cases appear in the first vol. of the Gazette of Health, in which this treatment completely succeeded. This practice was adopted by Admiral Henry, on his own person, 30 years ago, and by perseverance the Admiral succeeded in subduing the disease, and at this time, although nearly arrived to the

age of ninety, enjoys a good state of health. The part affected should be gently rubbed with the hammer described under the head of Rheumatism, and the pressure increased gradually till the patient can admit of its being gently beaten with it.—In the 11th and 12th Numbers of the Monthly Gazette of Health, instructions are given for using the hammer, and cures related, illustrative of the permanent good effects of the practice.

Gout being evidently 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

* 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.

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 constitution, 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 low 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 tea-

spoonful 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 63, and the solution of Prepared Natron, No. 60, the Tincture of Ginger and Camomile, No. 7, and Sassafras Cocoa (see page 89), 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 dry and warm by means of flannel, or horse-hair socks;—flannel next the skin will likewise be proper.

Since the publication of the last edition of this work, the author has found the application of the Euphorbium Plaster to the loins, a very powerful preventive of gout, by invigorating the nerves leading to the lower extremities. In many gouty subjects, the constant use of this plaster has not only kept off a fit of the gout, but the limbs which had been much weakened by frequent attacks of gouty inflammation, have been restored to strength and vigour.

Of Atonic Gout.

The cure of this species of gout consists in improving the general health of the patient; for this purpose, the Stomachic Mixture, No. 61, or two teaspoonfuls of the volatile Tincture of Cascarilla, should be taken with an 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 generous diet and moderate exercise are indispensably requisite. The feet should be kept warm by the use of flannel socks and cork-soled shoes, and the nerves of the lower extremities invigorated, by the applying the Euphorbium plaster to the loins.

Of Retrocedent Gout.

When gout affects the stomach and intestines, relief is to 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, ardent spirit must be employed. A dessert spoonful of ether has, in this case, answered very well, to which, half an ounce of paregoric elixir will prove an useful addition. The bowels should be fomented, and the feet put in warm water, and afterwards rubbed with the flower 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 substituted 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 the author has 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 70, applied over the stomach, and to the feet.

Recapitulation.—By the foregoing account of gout, it appears that the paroxysm is an operation of nature to restore the nervous system, impaired by abuse of spirits, stimulating diet and excesses, to vigour and health, and, therefore, topical applications to disperse the inflammation, and remedies to weaken the system, are dangerous. That, in the treatment, we must principally attend to the state of the stomach and bowels, by a mild stomachic medicine, and the occasional use of an aperient. That a stimulating liniment or blister, by assisting nature, is often very beneficial. That perspiration should not be checked. That laudanum may be administered to procure rest, in case of violent pain, but that its effects on the constitution tends to keep up the gouty irritation. That

the debility of nerves being the consequence of over-stimulation by spirituous liquors, spices, or high-seasoned dishes and excesses, the best preventive treatment is, to attend to the state of the digestive organs as recommended for indigestion. That the Euphorbium plaster applied to the loins by invigorating the nerves leading to the lower extremities, keeps off the gouty paroxysm, and recovers limbs which have suffered by frequent or violent attacks of gout.

OF THE GRAVEL AND STONE.

The gravel consists in small sand-like concretions, formed in the kidneys, and evacuated with the urine. In 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 hagged, or its form angular, it often excites considerable irritation and mischief in the bladder, occasioning slimy discharge with the urine, and not unfrequently 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 urethra of the latter more readily admitting of the evacuation 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 much *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 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 countries where an acid beverage is principally employed. Cider, the common beverage in Herefordshire*, is generally drank 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 inflammation, by the loss of blood from the arm, particularly if the patient be of a plethoric habit; the bowels should be rendered soluble by the Castor Oil, No. 3, and a lavement of gruel, and as the latter will not only assist the operation of the castor oil, but act as a fomentation to the parts affected, it may be administered twice a-day.

The warm bath, 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 pills, No. 81, should be taken, 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 wild carrot seed has been found to afford great relief in gravel; and the leaves of the bear's whor-

* 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.

tleberry have certainly proved useful in many instances of stone and gravel, particularly when attended with great pain, and coffee-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.

When the complaint has existed many years, the structure of the kidneys becomes diseased, which renders it more obstinate. In this case the Euphorbium plaster should be applied over the loins, and a little mercury taken as directed for indigestion.

Recapitulation.—By the foregoing account of gravel and stone, it will appear that the best preventive is the adoption of soft or distilled water as a beverage. That the most efficacious remedy is the aerated soda-water. That when diseased structure has taken place, a little mercury and the Euphorbium plaster over the region of the kidneys will also be necessary. That during a fit of the gravel, bleeding in a full habit, purgative medicines, the exhibition of clysters, the warm-bath once a day, and laudanum occasionally, are proper. That in debilitated constitutions, the turpentine medicines and bear's whortleberry generally prove beneficial.

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 remedy, 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 hips; 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 asarabacca snuff, as directed page 85.

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 distention 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 neck 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.)

Rubbing the affected eye, and occasionally beating it with a small wooden hammer, as directed for rheumatism, has been found very beneficial in this species of blindness.

OF HEAD-ACHE.

Under the head of Introduction to the Second Part, page 150, the author has 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-ache. 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-ache occurs in a person disposed to apoplexy, and attended with giddiness, pulsating sensation in the head, and noise in the ears, it should be considered a *premonitory* symptom of apoplexy, and the preventive means recommended for that disease, page 190, should be employed without delay.

Head-ache 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-ache often alternates with pain in the shoulder, or some other parts of the body.

Head-ache is very often the consequence both of an *increased* and *diminhised* irritation of the brain, when it is termed *Nervous Head-ache.* This species is generally produced by close application of the mind, particularly on 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-ache 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 was primarily affected. 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 distention of blood-vessels. When it arises from a foul state of the stomach, it is generally termed Sick Head-ache, and is speedily relieved by vomiting. Nervous head-ache is also often connected with flatulence in the intestines. How this air should produce head-ache is difficult to say; but certain it is, that the most obstinate head-aches 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-ache; and I believe the blood-vessels are more frequently the seat of 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 vessels, blood becomes effused within the head, and fatal apoplexy is produced: hence apoplexy is not always the consequence of distention of the vessels, as is generally imagined.

Treatment.—In cases of head-ache it is a very essential point to ascertain whether the complaint be attended with fulness of blood-vessels of the brain, or depletion and debility, and whether the morbid irritation commenced in the brain or be sympathetic; 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 63, 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-ache 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 190, are applicable to this species of head-ache.

For the *rheumatic head-ache*, which generally occurs on change in the atmosphere, and particularly during the prevalence of the north-east wind, the volatile tincture of the Guaiac Gum, as directed No. 20, page 22, warm fomentations, the Cathartic Pill, No. 84, page 63, small doses of the Antimonial Powder, No. 37, every night at bed-time. The asarabacca snuff, as directed page 85, and the warm-bath, are the most powerful remedies. If it be attended with general plenitude, 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-ache, after other apparently more active medicines had failed. A flannel cap should be worn during the night. (See Rheumatism.)

For the cure of the sub-irritative *head-ache*, or head-ache arising from relaxation or debility*, the exciting cause should

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* It is sometimes difficult to say, whether head-ache 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

be avoided, and whatever is likely to irritate the mind. If the digestive organs be affected, 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; alkaline tincture of steel, two 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-ache, 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 17, and the asarabacca snuff used as directed page 85, which, by exciting sneezing and producing a discharge from the inner membrane of the nostrils, often affords instantaneous relief.

If the patient be troubled with flatulency, a little ginger powder may be taken in the common beverage.

When head-ache 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-ache, 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-ache 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.

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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 what is generally termed *nervous*.

The application of ether to the temples, washing the head with cold water, the asarabacca snuff as directed page 85, 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-ache, from whatever cause it may arise. In chronic or periodical head-ache, it is likewise of consequence to attend to the secretions of the head, particularly of the ears and nostrils: the former may be increased by introducing a little lamb's wool moistened with camphorated oil, and the latter by the asarabacca snuff. Simple as these remedies may appear to be, the author has known them to succeed in the most violent head-ache.

Recapitulation.—Head-ache is a complaint that arises from opposite causes, viz. fulness and depletion of blood vessels; from rheumatism or morbid irritation of the external covering of the skull bone, and from disordered state of parts with which the brain particularly sympathizes, as the stomach and womb. When fulness of blood-vessels, either local or general, prevails, the loss of blood is necessary, and aperient medicines. If it be local, the feet should be kept warm. The means recommended for the prevention of apoplexy are applicable to this species of head-ache. When, on the contrary, the system is in a relaxed or debilitated state, tonic medicines and the asarabacca snuff, are necessary. When the complaint is principally external, the remedies recommended for rheumatisms should be employed with the asarabacca snuff, and a flannel cap worn during the night. That when it arises from irritation in the womb or a disordered state of the stomach, the treatment recommended for Hysterics should be adopted in the former case, and that for Indigestion in the latter.

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 this complaint 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 eructation or heartburn 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 its 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 defends the coats of the stomach, the irritation of pungent or spicy aliments, and ulceration or organic disease of the stomach, are causes of heartburn.

CURE.—The treatment of heartburn must depend on its exciting cause. When it is produced by acidity in the stomach, and the bowels are confined, or in a regular 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 two much disturbed, or the patient subject to habitual purging, the Cretaceous Powder, No. 29, or Lime-water, page 83, 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 the complaint be 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, a scruple; 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 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 acidity. 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.

An irritant, as the Euphorbium plaster should be applied over the region of the stomach. 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 9, 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.

Recapitulation.—The generation of acidity in the stomach, producing the pain termed heartburn, being the consequence of indigestion, or a disordered state of the digestive organs, we should employ, with the medicines which neutralize the acidity, such remedies as will remove the cause, as bitters, &c. If organic disease of the stomach exists, which, in elderly people, is often the case (symptoms of which are vomiting of slime and cramp in the stomach), mercury is necessary with the Euphorbium plaster over the region of the stomach. The treatment recommended for Indigestion is applicable to this disease.

OF HECTIC FEVER.

This fever appears to be produced by pus conveyed to the mass of blood by the absorbent vessels; hence it is an 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 unfrequently mistaken for it. The fever returns every day, with noon and evening accessions. In the morning there is a considerabe *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 Consumption.)

OF HICCUP, OR HICCOUGH.

Hiecup 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 its recurrence may be prevented by the use of the Tonic Mixture, No. 77, page 62. 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 resorted 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 of 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 sucure 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 eye-lids 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 effluvium, 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 by an emetic of the Tartarised Antimony Wine, No. 16, and afterwards the mixture*, No. 76, page 61. The Euphorbium Plaster, 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 will be necessary. 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.

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. The author has generally employed the following

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* 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 twenty grains of asafœtida gum, in three or four ounces of gruel.

form; and when properly managed, so as to affect the system, which is manifested by nausea and giddiness, the author has 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 leeches and a blister over the breast bone, or between the shoulders, is more particularly necessary if the child be born of consumptive or scrophulous 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 cardamom seeds, half an ounce.—Mix. From one to two tablespoonfuls to be taken threetimes 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 distention 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 hooping-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 the author believes to be the most efficacious remedy for hooping-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 desert-spoonful 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.

The tincture of meadow saffron, in the dose of twenty to thirty drops, three times a day, has lately been much recommended as a remedy for hooping-cough, by some foreign physicians and from its powers of allaying nervous irritation, it is worth a trial.

The diet should be adapted to the strength and age of the patient. 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.)

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.

Recapitulation.---The violent action of the diaphragm which gives this disease its character is occasioned by a peculiar contagion.

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* 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 evacution of worms.

The object of practice is first to produce a state of system in which its violence may not do mischief, by bleeding and purging; after which, the counter-irritation of a blister, and an anodyne medicine. as the cicuta, or acetated ceruse, are most likely to effect a cure. If the disease has continued so long as considerably to reduce the strength of the patient, the treatment recommended for indigestion and change of air will prove more beneficial than anodynes. In infants, after unloading the system, an emetic of ipecacuan powder once a day, has a very salutary effect by relieving the stomach of slime.

OF HYPOCHONDRIACISM.

This disease, commonly called vapours or low spirits, arises from debility of brain and nervous system, affecting the general health and disturbing the intellectual functions. 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 at the period when the sympathy between the brain and genitals is about to be established, 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 advantage of those situations in life which more immediately call for intellectual exertions and bodily exercises. "Industry seldom fails to place us 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 burden 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 conceits of mankind†.

As it is the nature of man, to indulge every present emotion, 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 ap-

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* "Absence of occupation is not rest;—
"A mind quite vacant is a mind distrest!"

† 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 found of medicines, and though often disappointed, will still take every new nostrum that can be proposed to them.

plication to any kind may appear, 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 proves 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 it engages the person in more constant exercise, and in a greater degree than is commonly taken in an airing near home; and lastly, as it is constantly presenting new objects which call forth the person's attention.

The symptoms of indigestion and hysteric complaints that so frequently attend this state of mind, although the effect rather than the cause, are objects of practice, inasmuch as they tend to aggravate and realize 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 an alterative aperient medicine with a tomachic, as the following:—

Take 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:

Take 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, without insisting on any points of doctrinal uncertainty, tend 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, either 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 religion; for nothing can tend more to ennoble and strengthen it than an intercouse with supreme Perfection. The pure love of God naturally connects itself with the love of man; hence rational devotion humanizes 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 with 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 devout man regards life, with all its interests, as a very small part of human existence; and, looking forward to the 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; be it 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."

In the last edition (the 2d) of his Medical Dictionary, the Author has entered fully into the causes, &c. of the Hypochondriasis of Youth.

OF THE HYSTERIC PASSION.

Females are more liable to this disease than males, in consequence of the great sympathy which exists between the brain and womb. Slight irritation in the latter organ often disturbs the nervous system so as to occasion the convulsions termed hysteric fits.

SYMPTOMS.—The hysteric fit commonly begins with some pain and fulness in the left side of the bowels, from which the patient has the sensation of a ball moving with a grumbling noise, into the other part of the bowels, and making, as it were, various convolutions, seems to pass into the stomach; and, more distinctly still, rises up to the top of the gullet, where it remains for some time, and gives a sense of suffo-

cation, when the patient is affected with a stupor and insensibility, and the body agitated with various convulsions: commonly the convulsive motion of one arm is that of 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 motion, 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 occurring both in plethoric and robust, as well as in the debilitated and leucophlegmatic, the treatment must be regulated by the state of constitution. If the patient be in a debilitated state, the fit may be relieved by the antihysteric mixture†, No. 65, page 59, to each dose of which, in obstinate cases, a teaspoonful 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.

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* 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 immodest publications."

† 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.

During the hysteric fit in a plethoric subject, the nervous system being in a state of super-irritation, officiousness, such as forcing open the hand and violently slapping them, dashing water over the face, filling her mouth with liquids, applying pungent salts to the nostrils, &c. tends to keep up the morbid irritation of the nerves, and of course to prolong the fit. If the patient be placed on a bed, and care taken that she does not hnrt herself, she will much sooner recover than if such attempts be made to hasten the termination of the fit.

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 62, as there directed, to which a drachm of prepared natron may be added in case acidity prevail in the stomach. Costiveness should likewise be obviated, 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-ache from over distention 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 58. 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.

In the 13th. No. of the Gazette of Health, a case of hysteric passion is given, that resisted the usual remedies, in which the tincture of meadow saffron was administered in the dose of 30 drops, in a glass of water, every eight hours, by Dr Alderson of Norwich, with complete success.

A morbid irritation of the nervous system, 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,

duringthe 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 notwistanding 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 mask 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 amiable 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 in 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 of adverse with prosperous fortune is necessary to inspire humanity and pity.

Recapitulation—The morbid irritability of the nerves in hysteric

affection is of two kinds, viz. super-irritative and sub-irritative, i. e. attended with fulness and increased vigour of system, and with debility and depletion. In the former, the countenance is florid, and the body plump; and in the latter, the face is pale and flesh soft and flaccid. In the treatment of the super-irritative kind, remedies to reduce the system are necessary; and in the treatment of the sub irritave, stimulants and tonics are proper. During the violence of a fit, little can be done in either case to recover the patient. The object of practice is therefore, to prevent its recurrence.

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 it 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 fibresof the bladder, a blister should be applied over the lowermost part of the back-bone, and when the surface has healed, the irritation should be kept up by a stimulant as the Euphorbium plaster. The Tonic Mixture, No. 77, page 62, should be taken as there directed, with ten drops of tincture of cantharides in each dose, and half a grain of calomel made into a pill, with a little conserve of roses, every other night, in the manner as directed for indigestion; 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 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 not admit of cure or much 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.

Under the head of Introduction to the first part, page 153, the important office of the stomach 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 is conveyed to every part of the trunk; which, of course, will flourish according to the richness of the soil. In the animal, the intestines answer the same purposes the root of 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, way 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 fœcal secretion of the intestines should be duly evacuated: if the fœces 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 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 great 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 very powerful acid is often formed, which counteract the effects of some remedies, as the soda or kali, when administered in stone and gravel; while to other articles a degree of activity is given, which may render them dangerous as mercury and antimony. Hence it is of the greatest importance, in many diseases, to prepare the stomach for the exhibition of such remedies.

Of such importance is the proper digestion of our food to the general health of the system, that Mr. Abernethy at-

tributes all the chronic diseases that occur in the human frame to imperfect digestion, and in their treatment he asserts that it is only necessary to pay attention to the state of the digestive organs. This author's system and his advice, with respect to medicine diet, exercise, &c. are detailed in the fifth and sixth numbers of the Monthly Gazette of Health.

Symptoms.—A loss of appetite; disengagement of air, producing distention 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-distention of the stomach, too great a quantity of warm relaxing liquors (as tea and coffee), unripe fruit, an indolent and sedentary life, close application or anxiety of the mind, or whatever may tend to weaken the digestive organs. A vitiated or deficient secretion of the gastric juice is likewise often the cause of bad digestion.

Indigestion is sometimes the effect of diminished irritation, as in cases of palsy.

It has been the fashion of late, to attribute every symptom of indigestion to the secretion of Bile, some complaining of a deficiency, and others of redundancy of Bile. The Bile has nothing to do with the digestion of the food in the stomach, for the duct which conveys it from the liver terminates in the intestine. See Bilious Complaints, and the office of the Liver, page 202.

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 both on animal and vegetable aliment; and we find the flesh of animals, with a pro-

* 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.

portionate 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 bitters 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 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 mith 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 spirituous 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

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* 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.

† 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 guzzler of small beer has no security

great numbers that die 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 the author has thought it incumbent to give directions for making a test for its detection †. (See Cream of Tartar.) A frequent question to medical men is, 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 fermented, 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 is 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,

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against them; nay, so sure and uniform is this effect of producing diseased bowels by fermented 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, Ipswich. 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 late 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. The author has found that the most genuine wines are sold by the Italian merchants who import it. He has been in the habit of recommending his patients to procure the wine and spirits they may require from the Italian warehouse of Messrs. Pressey and Company, of Oxford street, in consequence of having always found the articles sold by them to be perfectly free from adulteration.

very liable to become acid in the stomach; this disposition is, however, in some degree counteracted by its astringent quality. Some time ago the author distilled a quantity of different foreign wines commonly drank in this country, to ascertain the proportion of ardent spirit each contains, the result of which he has published in the seventh and eighth numbers of the Monthly Gazette of Health. He also gives the quantity of ardent spirit he obtained from different ales, porter, perry, and cyder. From a bottle of good old Port wine he obtained no less a quantity than nearly half a pint of brandy!!

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 impaired, and a variety of complaints gradually induced.

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 determination 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 sleep after dinner. When indigestion is accompanied with this state of system, the loss of blood by cupping, and the Epsom salt (as directed page 9), and the application of cold water to the head every morning* are the best remedies. When the

* I have known this remedy to prove very beneficial in the indigestion

system is not overloaded with blood, the treatment should commence with the Emetic Powder, No. 88, after which the Stomachic Mixture, No. 61, page 58, or the Tonic Mixture, No. 77, page 62, 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. For debilitated, gouty, or languid constitutions, the Compound Tincture of Ginger and Camomile is an excellent remedy.

Quassia root has been much recommended in cases of indigestion; but from its poisonous effects on insects and small animals, which it speedily destroys, the author cannot consider it a safe remedy.

The extract of camomile * was a very favourite stomachic medicine with the late Dr. Cam, an eminent physician of Hereford; it may be taken in the following manner:—

Take of the extract of camomile, one drachm; purified natron, one drachm; tincture of ginger, two drachms; mint-water, six ounces. —Mix. Three tablespoonfuls to be taken two or three times a day.

If the form of a pill be preferred by the patient, the following may be substituted:—

Take of extract of camomile, one drachm; dried natron, half ditto; powdered rhubarb, one scruple; oil of caraway seeds, ten drops; sirup 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, when attended

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of nervous subjects, when attended with head-ache, increased heat of body, and restlessnees.

* 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, coculus 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.

with much flatulence. (See No. 7, page 12.) 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 recommended by Mr. Abernethy to accompany the use of small doses of mercury in such cases, but it is not so efficacious as the Stomachic Mixture, No. 61, or the tincture of ginger and camomile.

Till 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 not *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 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 Nut, p. 89.) 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,

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* 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 of digestion; and by boiling, the juice and more nourishing qualities are extracted. The best method of cooking meat appears to be by steam, which render 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-road, which is also attended with a very considerable saving in the expence of fuel and labour.

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 headache, 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 Headache.)

When the stomach is evidently disturbed by over distention 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 the 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.

If the patient be subject to diarrhœa or purging, flannel should be worn next the skin.

If the remedies above recommended do not succeed in removing the disease, we may suspect that some organic mischief exists either in the coats of the stomach or in the organs connected with it, as the pancreas, liver, &c. with the view of removing which, a grain of calomel may be administered every night for a week or a fortnight, according to its effects on the constitution. The Euphorbium plaster should be applied over the region of the stomach, and a wineglassful of the following mixture taken three times a day:—

Take of lime water, seven ounces; extract of cascarilla, one drachm; tincture of cardamom seeds, half an ounce.—Mix.

If the bowels be in a costive state, the Epsom salt, No. 2, may be taken as directed, page 9, so as to procure one proper evacuation every day. Spirituous liquors and high seasoned dishes should be avoided. The Malvern water has been found particularly beneficial in this species of indigestion.

Prevention.---It must appear evident, from the foregoing observations on the causes of this disease, that the most 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

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* 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

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 claret is probably the most salutary beverage, in the quantity of a glass or two after meals, but this wine is too often mixed with English brandy, which entirely destroys its salubrious property.

Such as are in the habit of drinking a quantity of spirit, or spirituous wines, will receive great relief by taking distilled water at meals*, instead of wine or malt 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. (See Diet Drink and Exercise.)

Recapitulation.—Hence it appears that indigestion arises from a variety of causes—That it is equally a disease of plenitude and excess of health, as well of debility and depletion---that the principal cause in this country is debility or relaxation of stomach, in consequence of being overstimulated by wine and high seasoned dishes---that when fulness of system prevails, bleeding and aperient medicines are the best remedies—that when general debility of the system is an attendant, tonic medicines are necessary (see Heartburn)---that if the disease proves obstinate, some organic mischief may be suspected either of the coats of the stomach, pancreas, liver, or intestines, in which case mercury is necessary, and the application of the Euphorbium plaster. That in all cases particular attention must be paid to diet and exercise---that water during meals is the best beverage; and that meat undercooked is the most easy of digestion, as well as being more nutritious.

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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 sleep may be sound, let your supper be small."

* During meal time, water is certainly the best beverage. The custom of drinking fermented liquors, and particularly 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 excessive use of strong liquors.

OF INFLAMMATORY FEVER.

The causes and phenomena of this fever have been noticed, page 160.

Symptoms.---Inflammatory fever is distinguished by an 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 appearing red and bloated; the pulse strong, full and frequent; great thirst; sense of general lassitude; the urine high-coloured, and on standing deposits a brick-dust-like sediment; the tongue is generally covered with a white fur; the judgment much impaired, and rest disturbed.

Causes.---Whatever increases the excitability of the brain, 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. 62, page 58, should be administered: if the stomach be much disordered, the Emetic Powder, No. 11. p. 64, should precede the use of the aperient mixture. If after the operation of these remedies the skin should continue dry, perspiration should be excited by the Antimonial powder, No. 37, page 43, and if this fail, the body should be placed in a warm-bath of about 96 degrees; the Saline Mixture may be taken, as directed, No. 78, page 62; and the perspiration kept up by small doses of ten or twenty drops of Tartarised Antimony 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, page 8.

In all fevers, but particularly the inflammatory kind, it is of great consequence to keep up perspiration, for by the evaporation of perspirable matter, superabundant heat is conducted from the system. A dry skin, on the contrary, by favouring

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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.

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 constant application of it to the head, by means of napkins, is more 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:---

Take 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 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 electric matter to the part, in consequence of local irritation.

People in the vigour of life, the passionate, the studious, 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 lassitude 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 dosing he

generally talks or mutters a great deal, with a chattering of the teeth, trembling of the hands, and almost constant motion of the fingers, which seem employed to pick or gather something, and often do gather the nap of the bed-clothes. After the *fourth* day, the delirium is more continual and furious, with watching, convulsions, and hiccup; the fæces 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. Cold water, or vinegar and water should be applied to the head by means of napkins or folded linen, and removed when they become dry or warm. 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. The room should be kept dark and quiet, and the patient supported with barley-water, acidulated with lemon-juice. Such 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 pulse, are too often neglected by timid or inexperienced practitioners, till the brain has sustained irreparable mischief.

The Saline Mixture may likewise be given every three or four hours, as directed, No. 78, page 62, with ten or twelve drops of the tartarised Antimony Wine, No. 16, to which, as many drops of the tincture of fox-glove may be added, if the circulation be much hurried; but, in inflammatory attacks of a part of such delicate structure, and so essential to life, as the brain, the advice of the most skillful 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 have, with regard to this, given many very judicious directions. Aretæus remarks several circumstances, apparently minute, but, in reality, very important. Thus he advises, "quiet and calmness both to the sick person 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 not ornamented with variety of colours or paintings, 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

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* 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; and, instead of the depleting plan recommended above, treat the phrenetic symptoms as delirium from debility. The pulse, observes the learned Celsus, *res fallacissima est*; and in this disease it is particularly so.

of the mind might not be destroyed by habit and familiarity." All these precautions are extremely proper, being founded on reason and experience. These directions, however, more apply to the delirium attendant on low or irritative fever, than *active* inflammation of the brain; as 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 ball of the eye, or its membranes, accompanied with intolerance of light, and generally with an effusion of hot acrid tears.

CAUSES.—External injury, excessive light, minute examinations, 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, the occasional use of the Aperient Mixture, No. 62, page 58, the constant application of the Eye-water, No. 100, (by means of folded old linen), the Saline Mixture, No. 78, a dark room, and low diet, are all indispensably necessary in the treatment of this disease, and should be *speedily* employed, to prevent the formation of matter, 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 61, 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

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* Inflammation, or redness of the eyes, is a distinguishing badge 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 wounds without cause? who hath *redness of eyes?*" says Solomon; "they that tarry long at the wine, they that go to seek mixed wine."

† This effusion, terminating in adhesions of the layers, of which the transparent cornea consists, produces opacity, and is a very common cause of blindness.

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 of 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 122, 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 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 62, 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 Aperient Pills, No. 46, page 47, 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; but the most effectual prevention is, an issue in the arm or nape of the neck.

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, attended 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, page 66, 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. Almond emulsion, with a little gum arabic dissolved in it, is 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 the 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 reduplicature 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. The author has 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, quickness 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 Quinsy, 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, uvula, and soft palate, attended with a troublesome clamminess of the mouth, and fever, with its usual attendants, as head-ache, 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 vio-

lently stimulates the fauces, in a plethoric 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 58; and after its operation, the Saline Mixture, No. 78, page 62, with twenty drops of antimonial wine at bed-time. The Gargle, No. 92 or 93, page 65, should be used frequently, and the Volatile Liniment, No. 103, page 68, 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 table-spoonfuls 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 67) should be administered three or four times a-day, for the purpose of throwing nourishment into the system.

INFLAMMATION OF THE LIVER.

Symptoms.—Fever with tension and pain in the region of the liver, often pungent, like that of a pleurisy, but more frequently dull or obtuse; a pain at the collar bone and at the top of the shoulder of the right side; much uneasiness in lying down on the left side; difficulty of breathing; a dry cough, vomiting and hiccough.

Inflammation of the liver has generally been considered of two kinds; one the *acute*, the other *chronic*.

Causes.—Besides the causes producing other inflammations, such as cold, external injuries from contusions, blows, &c. this disease may be occasioned by certain passions of the mind, by violent exercise, by intense summer heats, by long continued intermittent and remittent fevers, and by various solid concretions in the substance of the liver. In warm climates, this viscus is more apt to be affected with inflammation than perhaps any other part of the body, probably from the increased secretion of bile which takes place when the blood is thrown on the internal parts, by an exposure to cold; or from the bile becoming acrid, and thereby exciting an irritation in the part.

This disease, like other inflammations, may end in resolution, suppuration, gangrene, or scirrhus; but its termination in gangrene is a rare occurrence.

The disease is seldom attended with fatal consequences of an immediate nature, and is often carried off by hæmorrhage from the nose, or hæmorrhoidal vessels, and likewise by sweating, by a diarrhœa, or by an evacuation of urine, depositing a copious sediment. In a few instances, it has been observed to cease on the appearance of erysipelas, in some external part.

When suppuration takes place, as it generally does before this forms an adhesion with some neighbouring part, it is usually discharged by the different outlets with which this part is connected, as by coughing, vomiting, or by an abscess breaking outwardly; but in some instances, the pus has been discharged into the cavity of the abdomen, where no such adhesion has been formed.

On dissection, the liver is often found much enlarged, and hard to the touch; its colour is more of a deep purple than what is natural, and its membranes are more or less affected by inflammation. Dissections likewise shew that adhesions to the neighbouring parts often take place, and that large abscesses, containing a considerable quantity of pus, are often found in its substance.

Treatment.—The same remedies as are recommended for pleurisy are necessary in this disease, except the situation of the blister, which should in this case be applied over the region of the liver. (See *Pleurisy*, and for the *Chronic kind*, see *Hepatic Disease*, Medical Dictionary.)

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 themselves 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

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* If the constitution of the patient be naturally weak, the extraction of blood from the surface of the chest, by cupping, will often prove more serviceable than from a vein.

to the nape of the neck, and even to the feet. A dose of the Aperient Mixture, No. 62, page 58, should be taken every two hours, till it operates, and afterwards the Cough Mixture, No. 66, page 59, 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 84, or an infusion of linseed, acidulated with lemon juice, which will be sufficient for his support 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 71.)

The structure of the lungs is of that delicate nature, that 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 case 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 69, the unpleasant smell of this remedy is disguised. The part affected should be well anointed with it every night, till the eruption entirely disappears. 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.

Dr. Gales of Paris, in a work lately published on the cure of this disease, recommends sulphurous fumigation as more speedy and effectual than the usual methods of applying sulphur. That this remedy may have a trial in this country, the doctor has forwarded an apparatus to the author.

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 practitioners; 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 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 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 the author has certainly witnessed its good effects

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* Schirrous enlargements of the viscera are generally the consequence of the abuse of spirituous liquors; drunkenness 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.

in several cases; but whether from a solvent power, as the doctor supposes, or as an anti-spasmodic, the author cannot take upon him 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 Ipecacuan Powder, No. 23, the Aperient Pill, No. 46 and exercise.

When the disease is produced by the *pressure* of a schirrous tumour,* the remedies to be depended on are the hemlock, mercury, (in the following proportion,) and 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 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.

In all cases of jaundice, it is good practice to excite a degree of irritation of skin over the region of the liver, by the application of the Euphorbium plaster, with the view of preventing mischief.

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

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* Schirrosity of the pancreas, by compressing the biliary duct, is not an unfrequent cause of jaundice.

(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 23.

People subject to this disease from gall-stones, should be very particular in guarding against indigestion, and the consequent formation of acidity. (See Prevention of Indigestion, page 311.)

Recapitulation.—Hence it appears that the yellowness of the skin is produced by bile taken up into the circulation, in consequence of an obstruction in the biliary duct. That the obstruction arises from spasms, from slime, or biliary concretion within the biliary duct, or the pressure of a diseased pancreas. That the treatment must be regulated by the state of the system with respect to fulness or depletion. That when a proper state of system is produced, if the cause be spasms, ether, opium, and the warm bath will prove beneficial. When the cause be slime, the occasional exhibition of a mercurial purgative and an emetic will be necessary; when biliary concretion, opium and warm bath to relax the parts are proper; and when the spleen or liver is diseased, mercury is chiefly to be depended upon, conjoined with such medicines as the state of the constitution may indicate. That in all cases, the irritation produced by the euphorbium plaster will tend to prevent mischief which might ensue from internal irritation or inflammation.

OF KING'S-EVIL, OR SCROFULA.

The Latins term 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 England* and France, pretending to cure it by the touch.

The cause of this disease has already been noticed, page 166. In subjects of a delicate structure the absorbent system is often extremely tender, which constitutes what is termed the scrofulous habit. The absorbent vessels not acting in unison with the secerning 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.

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* 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.

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 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.

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 221; 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 nervous 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 nerves will aggravate scrofula. For the improvement of the general health, the directions given under the head of Indigestion, page304, 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 lungs 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 so long as to occasion irritation in the system, or what is termed the mercurial fever, it will aggravate the mischief. The local irritation of an issue is very beneficial in this complaint, and in plethoric habits its discharge is desirable. 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 a subject 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 patients to exceed the dose specified in 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. For the dry, scaly, chronic inflammation of the skin, generally termed leprosy, the ammoniacal plaster, with mercury spread on black silk, is a very efficacious remedy. (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.

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* 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!!

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-ache in adults, and heaviness in children; a slight inflammation and considerable 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 58, 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 59, will likewise be absolutely necessary, and should not be delayed. The almond emulsion, linseed tea, or the compound barley-water, as directed page 84, 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 84, or Compound Barley-water,

page 84, and vegetable jellies, as Arrow-root, page 87, 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 contains, 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 59. 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, a blister 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 distinguished from other eruptions by the *cough*, *watering of the eyes*, *sneezing*, *hoarseness*, *difficulty of breathing*, and *drowsiness*, that precede the eruption.

Recapitulation.---Measles is a disease produced by a specific contagion, and runs a certain course. The object of practice is, in the first instance, to reduce the system by purgatives; and if the system be plethoric, by bleeding; and to keep up perspiration. As the lungs generally suffer more than any part of the body in this disease, cough should be quieted by an anodyne mixture, and by blister. In case of great debility, and symptoms of putrid fever coming on, the strength of the system must be supported and if the eruption recede, the warm bath, blisters, and sudorific medicines, are necessary. After the termination of the disease, the use of purgative remedies are necessary to take off the inflammatory state of the system which generally follows it, provided the strength of the patient will admit of it.

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 the hypochondriac affection, and distinct from melancholy; 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 cholic 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 whose 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 *Hypochondriacism*, 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, 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-ache 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.

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* Ladies are frequently 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 inquire whether she menstruates regularly? or the lady may observe, 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.

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 ecphractic pill of the Edinburgh pharmacopœia, two drachms; oil of caraway seed, six drops; prepared calomel, five grains.—Mix well together, and divide into thirty pills: two to be taken twice a day.

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 table-spoonfuls 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 table-spoonfuls 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 ex-

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* If there be a preternatural determination of blood to the head or lungs, or the patient be affected with cough, cold bathing is improper.

tolled as a remedy for this disorder by Dr. Mead; it has not, however, succeeded so well in the pratice 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 ecphractic 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 *retention* 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-ache 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-ache, oppression of breath, &c. it should be of the nutritious kind, but not stimulating; wine, particular Port, and spirits, should be avoided. Exercice is of greater consequence than medicine, as it will obviate plethora, amuse the mind, and promote digestion. If, on the contrary, it be attended with symptoms of local or

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* For the purpose of immersing the Hips in warm water, a convenient bath has been constructed, named the Hip Bath.

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 the 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*.

When a large flow of the menses has been *preceded* by head-ache, 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 œdomatous 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

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* 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.

of mind, liable to strong emotion 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 constringe the vessels of the womb, as the application of cloths sprinkled with vinegar over the region of the womb, and three tablespoonfuls 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 a quarter of water to a pint, then strain, and add alum, a drachm and half. To be used cold.*

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* 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 cases, 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 of 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 table-spoonfuls 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 some organic disease of the womb or stomach, or a determination of blood to the head, producing violent head-ache, apoplexy, &c. or to the lungs or bowels, occasioning consumption. At this period, a woman

should be very particular in avoiding fulness of the system, by moderate exercise, abstemious diet; and by keeping the bowels open by an active purgative, as the Aperient Pills, No. 46, page 47. In case of violent head-ache or giddiness, the loss of blood from the arm will be necessary; but the most powerful preventive of mischief at this critical period of life, is an issue in the arm or thigh, which should be applied some months before entire cessation of the menses, or as soon after as possible.

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. See Intellectual Functions of the Brain, page 151. 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 exhilirating 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, exhilirate 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 delirum, often amounting to insanity, is the certain consequence.*—

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* The basis of the advertised nervous cordials is 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

"————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."

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**."

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relief from such medicines; and we may conclude that those who have attested their efficacy, were addicted to dram-drinking. See analysis of a pretended Balm of Gilead in the seventh Number of the Monthly Gazette of Health.

* 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

"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
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?*"

Invalids whose general health and nervous system have been impaired by the too frequent 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 304.

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 of Epsom Salt, No. 2, 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

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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.

of the lungs, and the consequent obstruction to the free return of blood from the brain from over-distention 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 Aperient Pills, No. 46, page 47, 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-ACHE.

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 action 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

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* 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 fœtal 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 debility or diminished sensibility 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 ear, producing deafness. In bad cases, where one half of the body is paralyzed, 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, distention of blood-vesesls 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 distention 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 campression 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 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 as a remedy for palsy. 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.

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* 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.

Dr. Gales, of Paris, has lately found sulphurous fumigation very beneficial in paralytic complaints, and cases of local debility of nerves. He advises the body to be exposed to the fumes for a short time every day in a machine, which he has invented for the purpose. That the author may give this remedy a trial in this country, the Doctor has lately sent him a machine.

The inhalation of vital air to the extent of three gallons daily, the author has lately found very beneficial in general and partial palsy, not occasioned by compression of the brain, or the consequence of an apoplectic fit.

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 costivenes, the spirit of nitre, as recommended page 17, and the application of cold water to the head every morning by means of the shower-bath, the author has 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 instaneously 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, 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 free from every thing of a stimulating nature, as spices, wine, spirit, and fermented liquors. The patient should be careful not to overload 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 colombo, 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.

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* A few months since I opened a gentleman who died suddenly of this disease. The coats of the coronary arteries were so thickened as nearly to obliterate their cavity. The heart was also preternaturally large and flaccid.

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-ache, stupor, giddiness, and other symptoms of fever, with a sense of tightness, or fulness, heat and itching, and a sense of dragging down towards the anus; or otherwise symtoms 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 pills, 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 9, 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 relaxation, 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. The following stimulating electuary, known by the name of Dr. Ward's Paste, has been much recommended :

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 scirrhous 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.

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* 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 in inflammatory, attacks of the bowels.

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 ablution of the parts every night and morning with the following lotion for a month, will afterwards destroy the disposition of the skin to their formation.

Take of vitriolated copper, half a drachm; dissolve in rose water half a pint.

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 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 25. 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 diarrhœa (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 65, 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 62, 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 67, 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 92. The evaporation of the Acetic Acid, as advised,

No. 38, page 44, will, in a small room, answer as well in destroying 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 fœces 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 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 councils 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 viccisitudes 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 the 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 58, or either of the Neutral Salts, as directed No. 2, page 9; after the due operation of which the Antimonial Febrifuge Powder may be exhibited, as directed, No. 37, page 46; or if the pain be very severe, the following draught at bed-time. --

Take of Tartarized Antimony Wine, No. 16, thirty drops; Liquid Laudanum, No. 31, fifteen drops; Camphorated Julep, No. 23, 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 59 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 Cajeput Liniment, 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. Ex-

posure 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 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 60, 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 plaster, will be necessary;—

Take of Burgundy pitch plaster, 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

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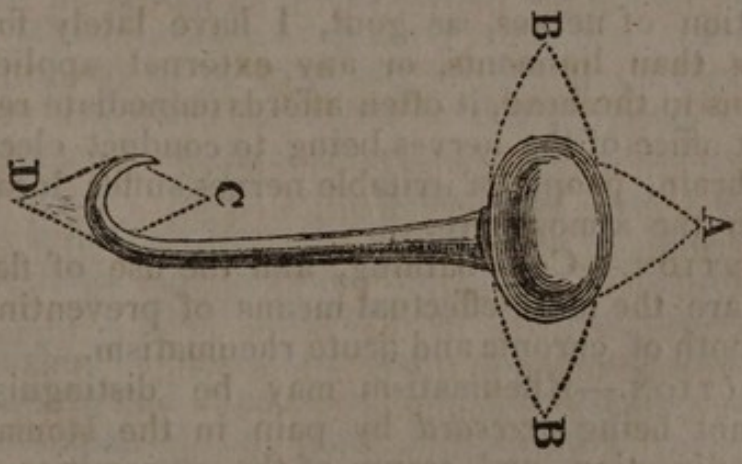
* The period of *acute* rheumatism seldom or ever exceeds forty days; after which, if the pain continue, it may be pronounced *chronic*.

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 71, 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 wine-glassful 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 advisable to begin with the small dose of a tablespoonful at first, and increase it gradually to a wine glassful.

Dr. Balfour, of Edinburgh, has lately recommended a practice which has been, for many centuries, employed in the East-Indies and in China, in the cure of chronic rheumatism, viz. To pommel and rub the affected part with an hard but smooth substance. Admiral Henry has long adopted this mode of treating rheumatism on his own person, and, by perseverance in it, he has entirely destroyed all disposition in his habit to it, and also to gout, to which he was very subject.—In the 12th. Number of the Monthly Gazette of Health, a hammer made of box is recommended both for pommelling and rubbing the different parts of the body affected with rheumatism or gout, of which the following is a representation:



The part A is for the purpose of rubbing a broad surface where the pain is deeply seated, as lumbago, sciatica, &c. The ends B are for pommelling the affected part, or for

rubbing where the surface is confined, as the ham, palms of the hand, face, &c. The inside of the curved end of the handle C is for rubbing the toes or fingers in cases of gout, and the convex end D is for rubbing parts that are indented or to which the end of the hammer B cannot be applied, as the ear, the eye, the nose, between the fingers, &c.: and also where it is necessary to begin with a very gentle pressure, on account of the great sensibility of the part affected, as gout in the toe, &c.

Dr. Gales, of Paris, speaks highly of the effects of sulphurous fumigation to the whole body, as a certain remedy for rheumatism and gout. This gentleman has lately forwarded the apparatus constructed by him for applying the fumigation, to the author, that the practice may have a trial in this country.

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 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 any earlier period of life; *not* being *hereditary*, and in general can be traced to some ex-

citing 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 nor 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 deposite 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 *pre-disposing* 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 mysenteric 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, sometime 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.

The plaster of rust of iron, commonly called strengthening plaster, spread on callico, applied round the tumefied joints, has lately been much recommended by a physician in Germany, and, in many instances, the author has found it to prove very beneficial. He has also applied it to the tumefied bowels of ricketty children, with the most decided advantage, which he attributes chiefly to its mechanical support, and to a slight degree of irritation it keeps up in the skin.

If the bones of the lower extremities be 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 more 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 92, and the beverage chiefly pure water. A teacupful of good fresh milk, with a table spoonful of lime-water, given two or three times a day, is very beneficial in this complaint.

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 30.)

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.

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* 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.

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 Patent Self-adjusting Truss) is the invention of Messrs. Salmon, Ody, and Co. 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.

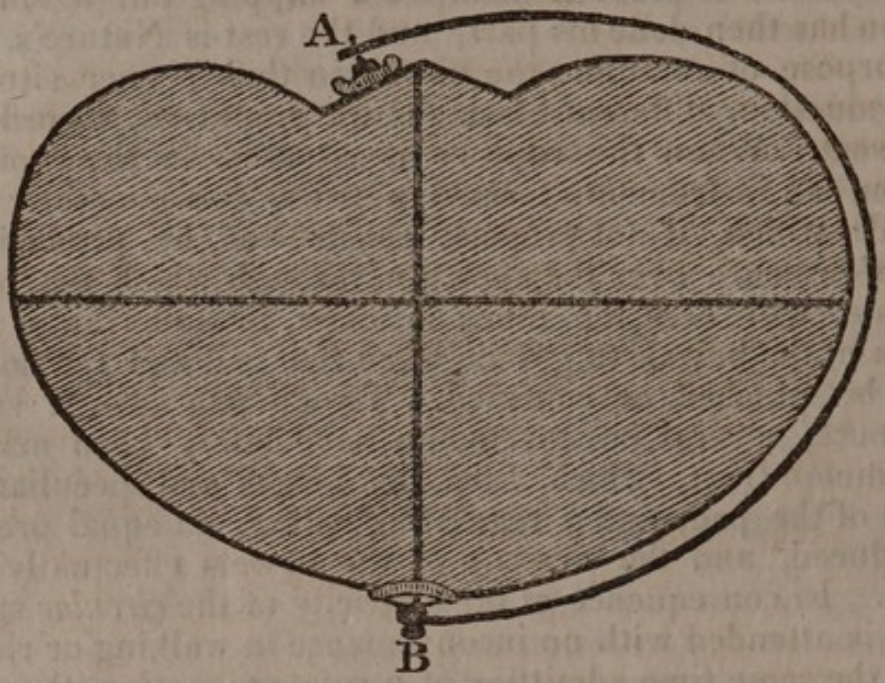
The cases to the springs, the back and front cushions, and their cases, are all made so as readily to take on and off to be repaired or cleaned; and additional sets of these may be had at the manufactory at a small charge.

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 additionnal 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 the bowels, the pressure should be by degrees lessened.

Description and application of Salmon, Ody, and Co.'s Patent Self-adjusting Opposite-sided Truss, requiring no understraps nor any other confinement on the body.



A, Front Cushion; B, Back Cushion.

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 pubes, which bone is situate just under the hole from whence the rupture protrudes; the back cushion should then be situate 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.

Directions to increase or decrease the Size.

At each end is a screw; by taking out of which, the cushion 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 wanted to decrease the force, it is of course done by taking out the additional springs.

N. B.—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 measures thirty-two inches in circumference (just above the hips, not from the seat of complaint), a truss so marked will fit.

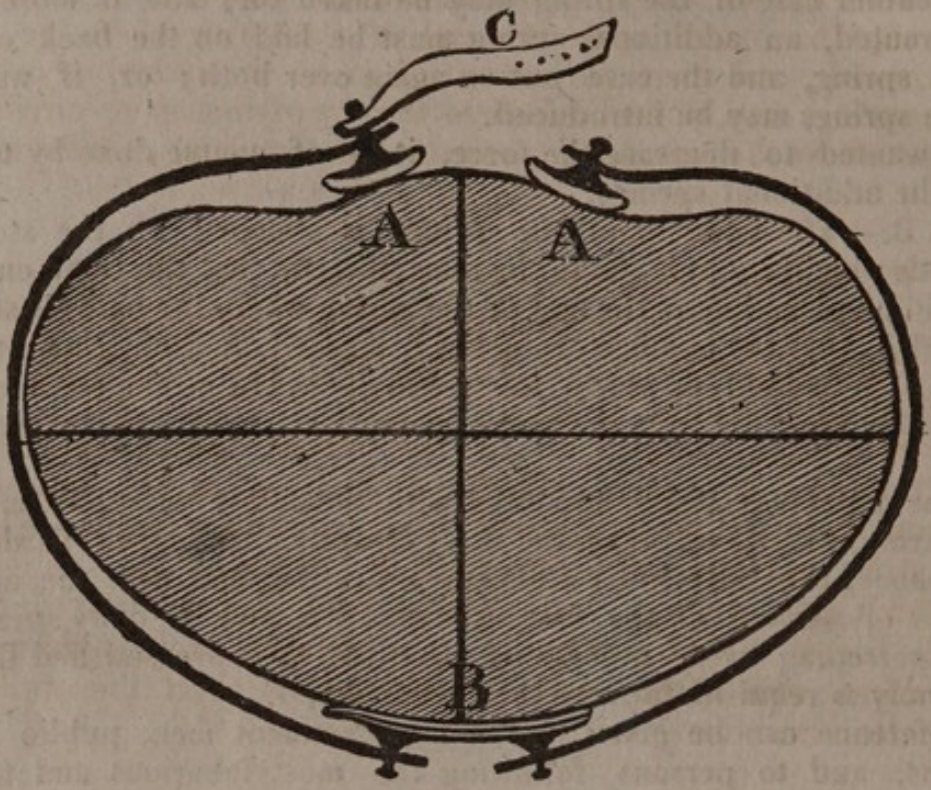
The patentees being honoured with the following appointments: the Army, the Royal Navy, the Navy Hospitals and Dock Yards, the Ordnance, the East India Company, &c. &c. and with the approbation of persons of the first respectability, and in daily practice of superseding every other sort of truss, they are satisfied that a trial only is requisite to prove their assertion.

Reference can be given to the most eminent men, public institutions, and to persons following the most laborious and trying occupations.--Umbilical trusses on the same princpile.

Manufactory, 292, Strand, opposite Surry-Street, London.

DOUBLE TRUSS,

requiring no understrap, or any other confinement on the Body.



A, A, Front Cushions; B, Double Back Cushion; C, Strap.

This sort of truss is called "*Double*," because it is two same-sided trusses united, and is for complaints on both sides. To apply it, the front cushion should be placed just above the bone of the pubes, and the back cushion on the centre of the back; and when placed, the small strap in front is sometimes used to keep the cushions at due distance from each other.

Directions to increase or decrease the Size.

At each end is a screw; by taking out of which, the cushion 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 wanted to decrease the force, it is of course done by taking out the additional springs.

N. B.—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 measures thirty-two inches in circumference (just above the hips, not from the seat of complaint), a truss so marked will fit.

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, with 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, gradually 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. See Erysipelas, page. 161.

TREATMENT.—The brain in this disease is always more or less disturbed. When the patient does not complain much of head-ache, 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 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.

As an alterative aperient, the Leamington Salt has been found most successful in this disease. The dose is from two to four drachms, dissolved in a quarter of a pint of water.

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 sustains; the object of practice is, therefore, on the first attack,

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* An examination of the blood of a person afflicted with St. Anthony's Fire proves it to be surcharged with common salt.

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, gleets, and fluor albus. In ladies of such constitution, fluor albus particularly is often atended 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 grain of calomel may be taken every night for a week. For breakfast and supper, the Sassafras Cocoa, page 89, 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. The author 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 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 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

* 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.

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 the author has 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,

In the Monthly Gazette of Health, the tincture of the root of the meadow saffron is much recommended by Dr. Alderson, and some cases are published in which it is said to have succeeded in restoring the patients to health in a short time. In the trials the author has given it, this remedy has completely failed.

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 air 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, shaving of the head will be requisite; after which, the scalp should be well washed with soap and 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 oiled silk, 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 soap and water, or a decoction of tobacco, till the hairs begin to grow on the parts that have suffered, 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.

In the fifteenth Number of the Monthly Gazette of Health the following liniment is highly extolled as a remedy for scald head :—

Take of olive oil two drachms; spirit of turpentine six drachms. —Mix. To be applied every night and morning, by means of a camel hair pencil, after washing the part gently with soap and water.

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 apparently 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 shiver-

ings; 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 characterized 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 anti-scorbutic 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 vitriolic acid, the Peruvian bark, and the red sulphate of iron, are likewise very valuable remedies in the far-advanced stage, of this disease.

The room or cabin of the patient should be fumigated two or three times with the nitrous vapours, as directed, page 91, 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 daily mended surprisingly, 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!

The diseases of the skin generally termed scorbutic are noticed under the head of Eruptions.

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 symp-

toms 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, always 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 maturate, 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 adjoiningcavities of the nose, from the stomach, or from the lungs; it is, however, of importanc toascertain 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 ulce-

ration, 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 prominency 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.

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 wine glassfull of the infusion of red rose leaves, 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 excercise, 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.

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* A Doctor 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!!

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 characterized 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.

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 produces 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 clysterwise, 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 ad-

visable 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 Lalonette, 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 enclosed *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 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 of the

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* The grey precipitate of mercury and cinnabar are generally employed for this purpose; but calomel will answer as well.

† Some surgeons recommend 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.

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 connexion 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 a 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. cover the chin and neck, have 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.

In the 14th number of the Monthly Gazette of Health, an interesting article appears on the treatment of this distressing disease, by the Editor of the *Gazette de Santé de Paris*, and several new remedies recommended, as the chlorine, &c. which it seems, have been lately employed in France and Germany with complete success.

OF THE TOOTH-ACHE.

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-ache.

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-ache. 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-ache, but often suspend the progress of caries.

The tincture for tooth-ache recommended by Mr. Perry, of Farnham, I have known employed in several instances, and in consequence of the uniform success that has attended its use, I have noticed it in the work, page 44.

The effect of fear on an acute attack of the tooth-ache 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 (observes Mr. Hertz, in his late Familiar Dissertation of the Teeth), 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. In-

deed, 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 pernicious 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 the sockets, but effectually preserve them from caries and tooth-ache, 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 prepared 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 sponge. When a hair brush is employed, care should be taken that the gum be not irritated by it." (See Prepared Charcoal, page 89).

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 89, 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 doloreux.

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 autumn 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 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*

* 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 happened of a great part of Europe, Asia,

cause. The characteristic symptoms of the 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 turgid 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*, which, by evacuating the stomach and bowels, producing an equal distribution of blood over the body, and promoting the different secretions, generally succeeds in abatiug 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 Crystallized 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 91. Wash-

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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.

ing 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 superabundant heat to the air, 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, 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. 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, 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 prognostics. 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 83.)

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 county 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*.

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* 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 mal-treatment; 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

For the means of purifying the air of the chamber, see page 91.

OF VOMITING.

When vomiting is the effect of poisons taken into the stomach, it requires the treatment already recommended for poisons, page 96.

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 effer-

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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, and the small quantity of wine and medicine which was forced down his throat, was soon after vomited up. The one that took the medicine died, and the water drinker recovered!!

vescence (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 hœmoptoe, 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 tablespoonfuls 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 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 an active purge, as the Antibilious Aperient Pills, No. 46, or a lavement of gruel, with a drachm of socotrine 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 orders 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 Aperient Pills, No. 46, with a generous diet, and abstinence from spirituous and fermented liquors, will effect a cure.

OF WARTS.

Warts are organized bodies, and probably a kind of parasiti-

cal 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 disappears.

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 they attribute 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 remedy, 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 the fourth number of the Monthly Gazette of Health, a few cases of this disease are given which were cured by mercurial friction.

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 vagina, 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, 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 a half; then strain, and add alum, a drachm and a 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 9, 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 blanc mange, 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: but 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 329.) It is often brought on by accidents, as bruises and strains, and sometimes by frequent attacks of rheumatism. The knee, ancle, 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 distention 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 a 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 in a cool state---friction with the hand is often very beneficial, by rousing the action of the absorbent vessels, and thereby producing a mutation of the diseased 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 infusion 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 intes-

* 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 more pointed on both extremities than the

tines 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 of worms are common to the different species, viz. indigestion, with a variable appetite: foul tongue; offensive breath; hard, full, and tense belly, with 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

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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 semi-lunar 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 larger 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.

* 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.

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 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 tea-cupful, two or three times a day, during the operation of the Basilic Powder, and with the Tonic Mixture; the Electuary of Tin, No. 86, 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,

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* 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.

redness and pain in the eyes, that sometimes affect the patient during the use of this medicine, prove that it should be administered with 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. 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 teaspoonful, 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 expelling 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 asafœtida in water and tobacco fumes, by other eminent physicians; to be thrown into the rectum. The muriated 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 bed-time, 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, 171, Piccadilly, 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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