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DOMESTIC MEDICINE;

OR,

MEDICAL VADE MECUM:

A

SAFE COMPANION AND GUIDE

FOR

FAMILIES, PLANTERS, COMMANDERS OF SHIPS OR STEAMERS,

OR ANY ONE WHO MAY REQUIRE

A TRUE FRIEND IN TIME OF NEED.

THIS COMPANION EMBRACES, ALPHABETICALLY ARRANGED, THE MEDICINES IN GENERAL USE; THE DISEASES AND ACCIDENTS OF USUAL OCCURRENCE; THE MOST USEFUL ARTICLES OF DIET OR DRINK FOR THE SICK OR CONVALESCENT, WITH THE BEST MODE OF PREPARING THEM; AND NUMEROUS REMARKS IN REFERENCE TO BATHING, EXERCISE, AND OTHER HYGIENIC MEASURES TO PRESERVE HEALTH, TO REPAIR AND STRENGTHEN AN ENERVATED CONSTITUTION, AND TO CURE DISEASE.

BY

EDWARD JENNER COXE, M.D.,

NEW ORLEANS.

PRINTED FOR THE AUTHOR,

AND FOR SALE BY ALL BOOKSELLERS THROUGHOUT THE UNITED STATES.

In publishing a fourth edition of this Medical Guide, much enlarged and improved, it is only necessary to remark that many subjects conducive to the preservation of health, and renovation of an enfeebled constitution, unnoticed in the former editions, have been introduced, adding, necessarily, to the value of the work.

PHILADELPHIA:
G. T. STOCKDALE,
73 South Second Street.

CONTENTS.

DEDICATION.

To Heads of Families, Planters, Commanders of Ships and Steamers, Travellers, and all who in their passage through life may stand in need of assistance in directing their minds to a correct manner of preventing and curing the diseases and accidents to which the human frame is liable, this companion and friend is respectfully dedicated by

Theirs, sincerely,

EDWARD JENNER COXE, M.D.

PREFACE.

In presenting to the public, for their use and benefit, a practical work on the various diseases and accidents to which all are liable, the most appropriate method of treatment, and a short but clear description of the remedies to be employed, and the articles of diet or drink that may be required, a few words of explanation as to the necessity of the work, and the reasons of the claim for their suffrages, may appear appropriate.

It is conceded, that many of the profession object to the popularizing a subject supposed to demand so much study, as the art of preserving health, or restoring it when invaded by disease.

By some, it is held to be scarcely possible to produce a safe and certain guide for those unacquainted with the delicate, complicated, yet perfect structure of the different organs of the human body, the diseases to which they are liable, or the power and action of the remedies required for their cure.

Such opinions might pass as correct, was it not an acknowledged fact, that, in proportion as medical men advance in age, knowledge, experience, and the power of curing diseases, so do they distrust the oft over-vaunted power of medicine, and repose more confidence in the ever-present and acting "vis medicatrix naturæ," the healing power of nature.

It is not my wish to undervalue the real efficacy of medicine, for there are cases where its powerful influence cannot be misunderstood; but, in the majority of cases, it cannot be denied, that but little is required to meet the indications plainly presented, and effect a speedy restoration to

health. All must acknowledge, that it is more consistent with reason to preserve health, prevent sickness, or invigorate a feeble constitution, by a correct observance of the laws of Hygeia, rather than fly at once to medicine for relief.

Compelled, by the necessity of seeking health, to travel by sea and land, I have frequently had occasion to notice the necessity and utility of practical works of medicine, for the benefit of families and travellers.

I do not presume to suppose that this medical companion and friend will, in all respects, surpass in excellence of matter, or arrangement, the various works presented to the public. I cannot, however, withhold the remark, that having carefully perused most of the works to be found in our country, I have seen reason to believe that, in many respects, the desideratum had not yet appeared. It will rest with those competent to decide, whether in this work there will have been presented all that may be required. At sea, in conversation with many intelligent captains and mates, I have heard from them valid objections to the many works on board, not to have endeavored, as far as possible, to avoid similar defects, in preparing a work which, I hope, will prove even more useful than the much smaller edition heretofore published, which has been extensively and advantageously resorted to.

The great object has been to notice, in plain language, whatever disease or accident is most likely to fall under the notice of those who may be far distant from their medical advisers. In the firm belief that no one will be led into error by aught contained in this companion and friend, it is sent forth with the assurance, that once looked into, it will be preserved for future reference.

It is deemed unnecessary to notice, in detail, the various authors from whose practical experience I have drawn much of the good herein contained. The arrangement is different from most works of the kind extant, and will be found, in all respects, to possess great and self-evident advantages.

EDWARD JENNER COXE, M.D.,
Camp Street, New Orleans.

LIST OF MEDICINES,

AND THEIR PREPARATIONS MOST GENERALLY USED, WITH THEIR ORDINARY DOSES, ALPHABETICALLY ARRANGED.

Aloes, grains 5 to 10.
Tincture of, drachms 1 to 2.
Alum, grains 3 to 10.
Ammonia, Aromatic, Sp. drops 10 to 20.
Water of, drops 5 to 10.
Assafœtida, grains 5 to 10.
Tincture of, drachms 1 to 2.
Milk of, tablespoonfuls 1 to 2.
Blue Pill, grains 2 to 10.
Blackberry Root Infusion, tablespoonfuls 1 to 4.
Boneset, Infusion, tablespoonfuls 1 to 3.
Buchu, Infusion, tablespoonfuls 1 to 4.
Bark, Peruvian, Powder, grains 20 to 60.
Infusion, tablespoonfuls 1 to 3.
Extract, grains 2 to 10.
Tincture, teaspoonfuls 1 to 4.
Calomel, grains 2 to 15.
Camphor, Gum, grains 2 to 6.
Spirits, drops 5 to 20.
Water, tablespoonfuls 1 to 2.
Cantharides, Tincture, drops 5 to 10.
Cayenne Pepper, grains 2 to 6.
Tincture, drops 10 to 40.
Catechu, Gum, grains 5 to 10.
Tincture, drops 20 to 60.
Chalk, Prepared, grains 5 to 20.
Chamomile, Infusion, tablespoonfuls 1 to 6.
Charcoal, grains 10 to 60.
Cod-Liver Oil, teaspoonfuls 1 to 4.
Colchicum, Wine or Tincture, drops 10 to 30.
Colocynth, Compound Extract, grains 5 to 12.
Colombo Powder, grains 10 to 20.
Tincture, teaspoonfuls 1 to 2.
Copaiva Balsam, drops 10 to 40.
Oil, drops 5 to 15.
Solidified, grains 5 to 10.

Cream of Tartar, teaspoonfuls 1 to 4.
Cubebs, Powder, grains 20 to 60.
Dandelion, Extract, grains 5 to 20.
Infusion, tablespoonfuls 2 to 6.
Digitalis, Powder, grains ½ to 1.
Tincture, drops 10 to 15.
Infusion, tablespoonfuls 1 to 2.
Dover's Powder, grains 5 to 12.
Elixir Vitriol, drops 5 to 15.
Epsom Salts, teaspoonfuls 1 to 6.
Essence Peppermint, drops 5 to 20.
Ginger, drops 10 to 20.
Ether, Sulphuric, drops 20 to 60.
Fowler's Solution, drops 5 to 12.
Garlic Syrup, teaspoonfuls 1 to 2.
Galls, Powder, grains 3 to 10.
Tincture, drops 20 to 60.
Infusion, teaspoonfuls 1 to 6.
Glauber's Salt, tablespoonfuls 1 to 2.
Gentian, Powder, grains 10 to 30.
Extract, grains 2 to 10.
Tincture, drops 30 to 70.
Infusion, tablespoonfuls 1 to 4.
Guaiacum Gum, grains 5 to 20.
Tincture, teaspoonfuls 1 to 2.
Tincture, ammoniated, teaspoonful, 1.
Tincture, Dewees', teaspoonfuls 1 to 2.
Hartshorn, Aromatic, drops 10 to 20.
Spirits, drops 5 to 20.
Hive Syrup, drops 10 to 60.
Hops, Tincture, teaspoonfuls 1 to 2.
Infusion, tablespoonfuls 1 to 4.
Huxham's Tinct. Bark, teaspoonfuls 1 to 2.
Ipecacuanha, grains 15 to 40.
Wine, drops 30 to 70.
Syrup, drops 20 to 80.
Iron, Carbonate, grains 10 to 40.
Tinct. Mur., drops 5 to 12.
Wine, drops 20 to 60.
Jalap, grains 10 to 25.
Extract, grains 5 to 15.
Tincture, teaspoonfuls 1 to 4.
James' Powder, grains 2 to 10.
Kino, Gum, grains 10 to 20.
Tincture, drops 20 to 60.
Laudanum, drops 10 to 30.
Lead, Sugar of, grains ½ to 3.
Lobelia Powder, grains 5 to 10.
Tincture, drops 20 to 60.
Logwood, Extract, grains 5 to 15.
Decoction, tablespoonfuls, 1 to 4.
Magnesia, Calcined, grains 30 to 60.
Carbonate, grains 30 to 60.
Manna, tablespoonfuls 1 to 2.
Mindererus, Spirits, teaspoonfuls 2 to 6.
Morphia, Acetate, grain ⅛ to ¼.
Muriate, grain ⅛ to ¼.
Sulphate, grain ⅛ to ¼.
Syrup, Liquor, { grain j to ℥ j, teaspoonfuls 1 to 2.

Mustard Powder, teaspoonfuls 1 to 6.
Naphtha, Wood, drops 15 to 40.
Nitre, Saltpetre, grains 5 to 12.
Nitric Acid, drops 1 to 10.
Oak Bark, Decoction, tablespoonfuls 1 to 3.
Infusion, tablespoonfuls 2 to 6.
Oil, Castor, tablespoonfuls 1 to 4.
Croton, drops ½ to 1.
Cubebs, drops 5 to 15.
Juniper, drops 4 to 12.
Turpentine, drops 10 to 30.
Wormseed, drops 2 to 10.
Valerian, drops 2 to 5.
Cod-Liver Oil, teaspoonfuls 1 to 4.
Opium, grains ½ to 1.
Tinct., drops 10 to 30.
Vinegar, drops 6 to 15.
Wine, drops 20 to 40.
Paregoric, drops 40 to 100.
Pink-root, Powder, grains 10 to 30.
Infusion, tablespoonfuls 1 to 2.
Pomegranate, Powder, grains 15 to 40.
Decoction, tablespoonfuls 1 to 3.
Potash, Acetate, grains 20 to 70.
Bicarbonate, grains 10 to 50.
Carbonate, grains 10 to 40.
Nitrate, grains 5 to 12.
Quassia, infusion, tablespoonfuls 1 to 3.
Extract, grains 2 to 5.
Quinine, grains 2 to 10.
Rhubarb, grains 12 to 30.
Syrup, teaspoonfuls 2 to 8.
Rhubarb, Spiced, teaspoonfuls 2 to 6.
Parched, teaspoonfuls 1 to 2.
Tincture, teaspoonfuls 2 to 4.
Rochelle Salts, teaspoonfuls 2 to 8.
Senega Snake-root, Infusion, tablespoonfuls 1 to 6.
Syrup, teaspoonfuls 1 to 4.
Senna, Infusion, tablespoonfuls 2 to 6.
Confection, teaspoonfuls 1 to 4.
Soda, Supercarbonate, grains 10 to 40.
Sweet Spirits Nitre, drops 20 to 80.
Squill, Syrup, drops 20 to 60.
Oxymel, drops 20 to 60.
Sulphur, Flowers, teaspoonfuls 1 to 4.
Milk, grains 20 to 60.
Uva Ursi, Infusion, tablespoonfuls 2 to 6.
Valerian, Powder, grains 10 to 40.
Tincture, drops 30 to 60.
Infusion, tablespoonfuls 1 to 3.
Extract, grains 1 to 4.
Oil, drops 2 to 6.
Virginia Snake-root, Infusion, tablespoonfuls 1 to 2.
Tincture, teaspoonfuls 1 to 2.
Warner's Cordial, teaspoonfuls 2 to 8.

Two ordinary-sized tablespoonfuls are equal to one ounce.

A teaspoon will hold from 65 to 80 drops.

The drops from a large bottle are smaller than those from a small one.

A teaspoon will hold from 30 to 40 grains of powdered jalap; 25 to 30 of powdered rhubarb; and 30 to 35 of powdered ipecacuanha.

The doses of the different medicines specified are intended for adults. A proper allowance should be made for children, as well as for sex and constitution.

gr., ...	grain.
℈i, ...	1 scruple: 20 grains.
ʒj, ...	1 drachm: 60 grains.
℥j, ...	1 ounce: 480 grains.

Mucilage—a word often mentioned—is gum Arabic, dissolved in water, two or three tablespoonfuls in a tumblerful of water. It should always be made with the gum in lumps, and not in powder.

DOMESTIC MEDICINE.

A COMPANION FOR FAMILIES, PLANTERS, COMMANDERS OF SHIPS, STEAMERS, AND ALL WHO MAY REQUIRE A TRUE FRIEND IN TIME OF NEED.

PART I.

THIS embraces an alphabetical classification of the medicines, and articles of diet or drink generally used.

ALMOND MILK.

A pleasant, mild, demulcent drink, used advantageously in some affections of the throat, lungs, stomach, and bowels. It is made by mashing two tablespoonfuls, each, of blanched almonds, gum-arabic, and white sugar, then adding one pint of water, stirring for some minutes. Strain before using. Dose, one tablespoonful every one or two hours.

ALOES.

A slow, though certain cathartic, acting principally on the large intestines. Frequently repeated aloes is apt to irritate the rectum, and cause the appearance of piles, and yet in small doses, it is by some recommended for that disease. In derangement of the monthly discharge of females, aloes is used advantageously.

In small doses, aloes is given successfully in cases of habitual constipation, attended with torpor of the digestive organs. In cases of ascarides, the small worms infesting the lower bowels, aloes is given internally, as also by injection. Dose, from two to ten grains, and as an injection, half a teaspoonful rubbed down in a pint of water.

ALUM.

This possesses valuable astringent properties, and may be used in hemorrhages, chronic dysentery, and diarrhœa. In painters' colic, one or two teaspoonfuls of alum given dissolved in water or mucilage, every three or four hours, has proved very serviceable, and by many is regarded the most certain remedy. In hemorrhage from the nose, a plug of lint soaked in a saturated solution, and pushed gently up the nostrils, will often arrest the flow of blood.

In inflammatory affections of the throat, the powder or solution is applied locally with advantage. In ordinary sore throat, the alum gargle will prove successful, and in the mercurial sore mouth, the watery solution or gargle is much used. Powdered alum in large doses, frequently repeated, is lauded by some as a prompt and certain emetic in croup, and although not equal to the hive syrup, may be conjoined with it in many cases, when, from the violence of the disease, there may exist a great insusceptibility to the action of most emetics. The dose of the former is from two to ten or twenty grains, given in mucilage, two or three times a day.

ALUM, DRIED OR BURNT.

Much used, dusted on relaxed sores, and to remove the proud flesh of ulcers. Burnt alum is made by holding a lump of alum in an iron spoon over a candle or the fire, until the water is driven off, when it should be finely powdered.

ALUM GARGLE.

Powdered alum, one or two teaspoonfuls, dissolved in a tumblerful of sage, or flaxseed tea, adding vinegar, two tablespoonfuls; honey or loaf sugar, four tablespoonfuls. Independently of the efficacy of alum, as a gargle in inflammatory affections of the throat, it is thought to possess the power of preventing the frequent recurrence of those complaints.

ALUM POULTICE.

An excellent application in ophthalmia, after inflamma-

tion has been subdued by appropriate treatment, made by rubbing alum with the white of one or more eggs, until a coagulum is formed. It is applied to the eye between linen.

AMMONIA, WATER OF.

A counter-irritant, or stimulant. Externally applied it is too immediate in its action for general use, or ordinary cases, but in extreme cases, where a speedy action is required, it may be used pure, or mixed with spirits of camphor, lard, or olive oil.

Granville's lotion, and other counter-irritants, very useful applications, are composed of the concentrated aqua-ammonia, spirits of camphor, and some essence.

ANTACIDS.

These are medicines which neutralize and remove acidity existing in the stomach and bowels. Excess of acidity being a frequent cause of pain or uneasiness, and looseness of the bowels, more especially of children, the use of antacids is indicated, and will generally produce speedy relief. The discharges from the bowels during the existence of acidity are generally of a greenish color.

The principal antacids are, Prepared Chalk, Magnesia, Soda, Lime-water, Ammonia.

ANTIDOTES.

These are medicines, or other substances, possessing the power of neutralizing poisons accidentally or designedly swallowed, thereby preventing injurious effects upon the stomach, which, if not timely applied, death will ensue. In all cases of poisoning, from whatever cause proceeding, unless the antidote is at hand, and in most cases, even when such is the case, the first and most important step is to excite vomiting as quickly and effectually as possible, by the administration of an emetic, and copious draughts of mucilaginous and diluent drinks. Warm water, salt and water, mustard and water, being generally readily obtained, should be given freely. If ipecacuanha, white or blue vitriol, tartar emetic, antimonial wine, or the tincture of

lobelia, are at hand, they may be freely given at the same time. In cases of emergency, any article that will produce vomiting may be properly given, more especially if copious draughts of some diluent are simultaneously swallowed. In some cases of poisoning, more particularly from opium, or other powerful narcotics, it will be necessary to use the stomach-pump. While free vomiting by copious draughts of mild diluents, with or without emetics, is being carried on, it is proper to administer the appropriate antidote for the poison known to have been swallowed. As a frequent consequence of poisoning, after the poison may have been removed by vomiting, inflammation of the stomach and bowels supervenes, which must be combated by the usual remedies for those diseases. The different antidotes will be noticed under the head of the poisons generally taken.

ANTISPASMODICS.

Medicines which equalize the energy of the nervous system, thus allaying inordinate muscular action. Spasm, or excessive muscular action, results from so many causes, often in opposite states of the system, that there are few articles in the Materia Medica which will not, under certain circumstances, act as antispasmodics. The principal antispasmodics are Assafœtida, Valerian, Sulphuric Ether, Chloroform, Opium, Musk, Camphor, Garlic, and Castor.

ARROW-ROOT.

A nutritious and easily-digested article of diet, much used for the sick and convalescent, and especially adapted to affections of the bowels, lungs, and urinary organs. As an article of food for infants, it is much used. The mode of preparing it, is to mix one or two tablespoonfuls with cold water, then pour one pint of boiling water upon it, stirring all the time; finish by boiling over a slow fire for a few minutes, and sweeten with loaf sugar. It is made with milk, or milk and water. Lemon-juice, spices, and wine, are added in certain cases.

ARSENIC, FOWLER'S SOLUTION.

This is chiefly used for intermittent fever, or other dis

eases assuming a paroxysmal form, and many diseases of the skin. In obstinate cases of ague and fever, or whenever quinine cannot be taken, Fowler's solution will often prove advantageous.

The usual dose is ten drops three times a day, gradually increased until the disease is cured, or there is manifested some evidence of its action on the system, indicated by a puffiness of the eyelids. Mixed with water, in the proportion of a drachm to an ounce, it is often found useful as an external application to chronic ulcers, and diseases of the skin.

ASSAFŒTIDA.

A saturated, watery solution, called milk of assafœtida, is a good expectorant in chronic coughs, the coughs of old persons, and in the latter stages of hooping-cough, after inflammatory action has been subdued.

In nervous diseases this is employed with great advantage. In spasmodic pains of the stomach and bowels, and in some cases of constipation connected with nervous symptoms, it often produces the best effects.

The dose, in substance, is from three to ten grains; of the tincture, one or two teaspoonfuls, and of the milk, or watery solution, one or two tablespoonfuls every one or two hours. The milk of assafœtida is a good injection in cases of ascarides, the small worms infesting the lower bowels.

ASTRINGENTS.

These are substances possessing the power of contracting the muscular fibre, thereby restraining or arresting hemorrhages, and other discharges from the human body. In administering this class of remedies, it is proper to attend to the general condition of the system, as, in those cases attended by febrile action, with a full and hard pulse, bleeding, rigid abstinence, and other depleting remedies, may be necessary.

The principal astringents are, Oak-bark, Galls, Logwood, Blackberry and Dewberry Root, Kino, Catechu, Sugar of Lead, Alum, White Vitriol.

BALSAM COPAIVA.

Much used in diseases of the kidneys, bladder, and urethra, more especially gonorrhœa, in which it may be considered a specific. In chronic affections of the mucous membrane of the air-passages, it has been used beneficially internally and by inhalation. The use of this medicine is sometimes followed by an eruption, like nettle-rash, over the body. It is apt to act on the bowels, and should then be conjoined with laudanum. Dose, twenty to fifty drops, three or four times a day.

BALSAM, TURLINGTON'S.

Frequently applied to recent cuts and wounds, but by exciting inflammation and preventing healing by the first intention, it often does more harm than good. The edges, or lips of the cut surface being brought together by strips of adhesive plaster, this balsam may be carefully poured over the plaster, or upon lint, which may be laid upon it, and in this way do good by acting as a varnish or cement. Administered internally, as a stimulating expectorant, Turlington's Balsam is at times used advantageously in the chronic coughs of old persons, in the dose of twenty to forty drops, three or four times a day, on a lump of sugar, or mixed with the yolk of an egg, or mucilage of gum arabic.

BARK, PERUVIAN.

The most useful of vegetable tonics. Formerly the bark, in powder, alone or combined with other articles, was given in large doses, for the cure of intermittents; but since the introduction of its active principle, quinine, which is used in all cases where the bark is considered proper, it is rarely prescribed in substance. The dose of bark, in powder, is one or two teaspoonfuls in port wine, water, or a bitter infusion, every one or two hours, when fever is not present. As a general tonic in debilitated conditions of the system, a strong infusion of the bruised bark is used with great advantage, and will frequently prove of more service than quinine.

BARK AND SNAKE-ROOT TEA.

One of the most useful tonics in cases of debility. Used in conjunction with quinine, the stomach and bowels and secretion of the liver being in a healthy condition, few cases of ague will resist their combined influence. It is made by taking two or three spoonfuls of Peruvian bark, bruised, a handful of snake-root, one or two dozen cloves, a few bits of cinnamon, ginger, and orange-peel, and a pint and a half of boiling water. Let the bowl in which the tea is made, stand near the fire for one or two hours. When cold, the dose is one or two tablespoonfuls three or four times a day.

BARK, HUXHAM'S TINCTURE OF.

A useful tonic in cases of debility of the digestive organs, or of the general system, unattended by inflammation. It is given alone, or combined with bark and snake-root tea, or other bitter infusions. It is a good menstruum in which to give quinine in ague and fever. Dose, one or two teaspoonfuls several times a day.

BASILICON.

This ointment is principally used to dress blisters and old sores. Mixed with spirits of turpentine, to the consistence of cream, it forms one of the best applications to burns, scalds, and frosted feet or hands. When applied to burns, the ointment should be spread on the burnt surface alone.

BEEF, ESSENCE OF.

In a small quantity, this contains a large proportion of nourishment, and is advantageously administered in the low stages of fevers, where it is desirable to give as much nourishment as possible, to increase or support the strength of the system. It is made by cutting into small pieces, as much lean beef as will nearly fill a bottle. Pour into it half a tumblerful of water, and tie a rag over the mouth. Place the bottle in a vessel of water, then put the vessel over a fire, and continue boiling for eight or twelve hours. When finished, strain, add a little salt, and if proper, spices.

BEEF TEA.

Cut half a pound of beef, free from fat, into small pieces, pour two pints of water upon it. Boil slowly for thirty or forty minutes, skimming it occasionally. To be drank hot or cold, as may be desired, adding salt to suit the taste.

In the same manner may be prepared chicken, or mutton broth. When necessary to have these preparations more nourishing, take a larger proportion of the solids, and continue the boiling for one or more hours.

BISMUTH, SUBNITRATE, OR OXIDE.

This, as a tonic and antispasmodic, is used with efficacy in some cases of dyspepsia, accompanied with pain. It is also given for that disease, when there occur frequent rejections of water from the stomach, known as water-brash. Dose, from two to six grains, two or three times a day.

BLACKBERRY ROOT.

In bowel affections, a decoction of the roots has long been esteemed. Boil one ounce, in a pint and a half of water, down to a pint. Dose, two or three tablespoonfuls, three or four times a day.

BLACK WASH.

Made by adding two to four drachms of calomel, to eight ounces of lime-water. A useful application to sores, whether of a syphilitic or other character.

BLISTERS.

In almost all diseases, at certain stages, blisters are applied with decided advantage, and when properly timed, great power is justly attributed to them for the cure of diseases. As a general rule, they are inapplicable in a state of high arterial excitement or febrile action. Spread the ointment on a piece of sheepskin, linen, or coarse paper. Rub the part previously with strong vinegar, or apply a mustard poultice, or flannel steeped in turpentine, till considerable irritation be produced, then apply the blister, and pass four to six strips of adhesive plaster across it, extending

three or four inches upon the sound skin, to retain the blister securely in its position. A soft towel, folded rather larger than the blister, should be laid upon it, and retained by a long towel doubled, and passed round the body, and secured by large pins. When the blister is applied to the arm or leg, a bandage should be used over the compress. As a general rule, a blister should be kept on twelve hours; though in children, and some particular cases, for one or two hours, or until a decided redness of the skin results, when a bread and milk poultice must be applied, and will generally produce full vesication. When applied on the head, twenty-four hours is generally required to produce its full effect. It is proper to shave the head four or five hours before applying the blister. The blister being removed, cut the vesicles with a pair of scissors, to allow the fluid to escape, and dress the surface with basilicon or simple cerate, morning and evening, or more frequently, should there be much uneasiness or irritation experienced. Where it is considered important to keep up the discharge from the blistered surface, it may be dressed with savin cerate, or a mixture of one part of fly ointment, to two or three of basilicon. Strangury, or difficulty of making water, is a frequent consequence of the application of blisters, and in such cases, gum-water, flaxseed-tea or lemonade, should be drank freely, and one teaspoonful of sweet spirits of nitre with twenty drops of antimonial wine given every hour. At times, the uneasiness and pain from this cause, are so severe, as to require an injection of thirty to fifty drops of laudanum in a wineglassful of warm mucilaginous fluid, which may be repeated in an hour's time if necessary. A warm bread and milk, flaxseed meal, chamomile, or hop poultice, applied over the lower part of the abdomen, with a teaspoonful or more of laudanum poured over the surface, will prove soothing, and remove the pain. Strangury will be prevented, by sprinkling powdered camphor over the blister, or by covering it with thin gauze.

In reference to the size of a blister, a large one gives but little, if more pain than a small one, while the amount of benefit is generally in proportion to its size.

BLUE PILL.

A mild preparation of mercury, used in bilious derangements. Dose, five to ten grains at bedtime, its powers being increased by the addition of one grain of ipecacuanha.

BLUE VITRIOL, SULPHATE OF COPPER.

A prompt and active emetic, generally administered in cases of poisoning from narcotics. Dose, five to ten grains, dissolved in water, and repeated several times, if necessary. Its operation should be assisted by copious draughts of warm water.

As a lotion, two to ten grains to the ounce of water, it is much used as an application to ill-conditioned sores, and as an injection in gonorrhœa, the violence of the inflammation being subdued.

BONESET.

Very extensively and beneficially employed throughout the United States, as a diaphoretic, particularly in coughs and other catarrhal affections, and also in rheumatism. It is generally used in infusion, one ounce in a quart of boiling water, taken hot or cold, though more active and certain when hot, and drank freely, the individual being confined to his bed.

BRANDY MIXTURE.

Beat the yolks of three or four eggs in a bowl, for five or ten minutes, then add of brandy and orange-flower, or cinnamon-water, each eight or ten tablespoonfuls, and a sufficient quantity of sugar, and beat them well together for a few minutes. In cases of debility, one or two tablespoonfuls may be given occasionally with advantage.

BROTH, OYSTER.

Cut into small pieces one or two dozen oysters, and boil them with their liquor in a pint of water for ten minutes, adding a little salt. This forms a pleasant, nourishing drink in convalescence from many diseases.

BROWN MIXTURE.

This is an excellent expectorant or cough medicine, long

in use, and deservedly esteemed. It is made as follows: Powdered liquorice extract and gum Arabic, of each one tablespoonful; boiling water, ten tablespoonfuls. When dissolved by rubbing in a mortar, add spirits of nitre, two teaspoonfuls; antimonial wine, one tablespoonful, and laudanum, one teaspoonful. Dose, one or two teaspoonfuls every one or two hours.

BURGUNDY PITCH.

As a rubefacient, spread upon sheep-skin, it is applied with the best effect to the breast, in chronic catarrh and hooping-cough, to the abdomen for chronic affections of the bowels, or to the loins for rheumatic pains.

BUTTER, OIL OF.

Prepared by stirring a lump of fresh butter in a teacupful of boiling water. When cold, skim off the oil from the surface, and repeat this process three or four times, when it will be ready for use. The late Dr. Dewees praised this in the highest terms, as a valuable remedy in the bowel affections of infants and children. Dose, one or two teaspoonfuls three or four times a day.

CALOMEL.

A valuable remedy, properly administered, especially serviceable in bilious derangements. As a general rule, it is best to give it at bedtime, and the next morning one or more doses of oil, salts and magnesia, or senna tea. Dose, for a child of two years, 2 to 4 grains; three to five, 4 to 6; five to twelve, 6 to 8. For an adult, 10 to 15. To be given in syrup or molasses.

CAMPHOR.

By allaying nervous irritation, and quieting restlessness, this is useful in some cases. In diseases of a typhoid character, with restlessness, tremors, and low delirium, it is often given advantageously. Dose, two to five grains.

CAMPHOR, SPIRIT OF.

Much used externally in rheumatic or other pains, as

also to chilblains, bruises, and sprains. It is used internally with benefit in cramp of the stomach, colic, and affections of the bowels unattended by inflammation. Dose, five to twenty drops, poured on a lump of sugar, and mixed with water.

CARROT.

The root and seeds of the garden carrot possess diuretic properties, and are used at times advantageously in dropsy, chronic affections of the kidneys, and in the painful strangury caused by the action of blisters. A strong infusion of the roots or seeds, or both conjoined, may be freely drank. Scraped or mashed carrots, as a poultice, are much used for ulcers, or sores of various kinds, correcting the fetor so often attendant upon them.

CASTOR OIL.

A mild, certain, and prompt cathartic, peculiarly applicable where we wish to empty the bowels, or remove costiveness. In most diseases of the bowels, castor oil is given with advantage, and in the diseases of infants and children, it is especially useful as a laxative. To overcome the habit of constipation, one teaspoonful of castor oil, taken every morning one hour before breakfast, will often prove successful.

Dose, from one teaspoonful to two or three tablespoonfuls, according to the age, to be repeated every two or three hours, if necessary. It is best given in hot coffee or milk, or as an emulsion, rubbed up with powdered gum Arabic, the yolk of an egg, or cinnamon and mint water. A few drops of essence of peppermint, and spirits of lavender, and a tablespoonful of peppermint-water, stirred into the oil, will enable the dose to be readily swallowed.

CATECHU.

One of the best astringents for diarrhœa and dysentery. It is given alone, or combined with the chalk mixture. Dose of the powder, ten to twenty grains, and of the tincture, thirty to fifty drops, several times a day. An infusion in hot water is a valuable injection in fluor albus, and a gargle in chronic sore throat.

CATHARTICS, PURGATIVES, LAXATIVES.

These are medicines which cause the contents of the bowels to be expelled, or produce purging, by increasing the peristaltic action of those organs. These medicines diminish the activity of the circulation, by evacuating the contents of the bowels, causing a greater flow of fluids from them, thus abstracting from the general mass of the blood. In this manner, cathartics act as powerful revulsives, and diminish the determination of blood to the brain or other important organs. In apoplexy, and most affections of the brain, free purging is much relied upon. In the different stages of most fevers, purgatives are of unquestionable advantage. In acute diseases of the lungs, caution is required in their use, from the exposure of body incident to their operation. In inflammatory diseases of the alimentary canal or stomach and bowels, purgatives, as a general rule, should be used sparingly, if at all, but when considered proper or necessary, the mildest should be selected. In those common affections of the stomach and bowels, attended by derangement of the biliary secretion, popularly termed bilious, evinced by a furred tongue, bad taste in the mouth, loss of appetite, headache, soreness of the eyeballs, and occasional pains in the stomach and bowels, a properly selected cathartic will often remove these symptoms, and possibly prevent a severe attack of illness. During the operation of cathartics, to hasten and assist their action, warm, diluent drinks may be used. Cathartics are best given upon an empty stomach at bed-time, or early in the morning. In diseases where it is important to obtain the speedy operation of cathartics, as in some sudden and violent attacks, the exhibition of a large injection, one or two hours after the medicine has been given, may be resorted to with advantage. The principal articles of this class are Epsom, Glauber, and Rochelle Salts, Seidlitz Powders, Magnesia, Castor Oil, Aloes, Senna, Jalap, Rhubarb, Scammony, Gamboge, Colocynth, Cremor Tartar, Calomel, Blue Mass, Sulphur, Congress, and Blue Lick Water.

CAYENNE PEPPER.

An excellent rubefacient. It may be applied made into

a paste with butter, lard, or oil, or it may be sprinkled over the surface of a common poultice. The tincture, combined with laudanum and spirits of camphor, makes a powerful stimulating liniment, advantageously used in pains of a chronic character.

CAYENNE PEPPER GARGLE.

One teaspoonful of cayenne, two teaspoonfuls of common salt, four teaspoonfuls of vinegar, in a tumbler of boiling water. When cold, strain, and gargle frequently. This gargle may be used with success in the incipient stages of inflammation of the throat, and will often arrest its progress. In the sore throat of scarlet fever, not only has its use as a gargle been lauded, but its internal administration has been no less strongly insisted upon; and in cases with a strong tendency to a recession of the eruption, and a depressed or typhoid condition of the system, its use will prove advantageous. Dose, one or two teaspoonfuls in sugar and water, three or four times a day, or more frequently, if required.

CERATE, GOULARD'S.

For allaying irritation, and soothing pain, this is a useful application to contused wounds, ulcers, excoriated and blistered surfaces, burns, scalds, and irritable cutaneous affections.

CERATE, SIMPLE.

A mild and useful application for sores, wounds, or blisters. It is made by melting in an earthen dish white or yellow wax, with a sufficient quantity of fresh lard or sweet oil, to form an ointment of the proper consistence.

CERATE, TURNER'S.

A mild, astringent application, much used for burns, old sores, and excoriations.

CHALK, PREPARED.

A useful antacid, much used in diarrhœa, or the latter stages of dysentery of children or adults. It is given alone, or combined with sugar and gum Arabic; dose, two to ten

grains, three or four times a day. Paregoric or laudanum are useful additions to the chalk mixture.

CHALK MIXTURE.

For diarrhœa and dysentery, this is a valuable remedy. It is made by mixing in a mortar two teaspoonfuls of precipitated or prepared chalk, two tablespoonfuls of powdered gum Arabic, and one tablespoonful of white sugar, with six or eight tablespoonfuls of water, then adding a few drops of laudanum. The tincture of kino or catechu are often useful additions. Dose, one or two teaspoonfuls every one or two hours.

CHAMOMILE.

A mild tonic, used advantageously in cases of weak digestion, or general debility, with languid appetite. Infused in cold water, it is more agreeable and efficient as a tonic. A warm infusion is preferable, when it is given to assist the operation of an emetic. As a fomentation, the flowers mixed with hot water, are useful in cases of irritation or inflammation of the stomach or bowels.

Chamomile-tea is made by macerating a tablespoonful of the flowers in a tumblerful of cold water for one or two hours; a wineglassful or more occasionally.

CHIA, OR MEXICAN SEED.

This small seed comes from Vera Cruz, and neighboring parts. It enjoys a high reputation there for its great utility in dysentery, diarrhœa, and other affections of the alimentary canal. As a mild and rich demulcent and agreeable drink, it may be used freely in all diseases where such may be required.

Without being able to say that by its employment I have found it to display all the marvellous power attributed to it, I can recommend the Chia Seed as a really valuable remedy.

A few teaspoonfuls stirred in a tumbler half full of cold water, form in a short time quite a thick, mucilaginous fluid, almost tasteless, and which cannot be equalled by flaxseed, gum Arabic, or pith of sassafras.

The seed may be put in water and drank, or a teaspoon-

ful or two may be placed in the mouth, and, with a little water, passed into the stomach.

I have thus far failed in obtaining accurate information as regards the nature of the plant producing these seeds, its precise habitat, or aught else concerning them.

CHLOROFORM.

Discovered within a few years, this article has come into very general use. Chloroform is an anæsthetic to destroy, temporarily, consciousness; to soothe pain, and quiet nervousness; is a colorless fluid, having a peculiarly fragrant odor, a slightly acrid and very sweet taste.

Although used internally with much advantage in many cases, where the object is to calm nervous irritation or excitement, as also to allay pain, its most frequent and advantageous employment is by inhalation. Inhaling chloroform poured upon sponge, handkerchief, or piece of linen, is found of great service in some of the most violent diseases to which the human frame is liable, many surprising cures being alleged to have followed its internal and external use.

Its palpable and almost immediate effects are, complete insensibility to pain and outward occurrences, and an entire forgetfulness of all passing events, while fully under its calming influence. The pain necessarily dependent upon extracting teeth, more serious surgical operations, no less than that from parturition, are perfectly avoided, and, when judiciously used, no remedy so much claims or merits thanks for its fortunate discovery and application to the wants of suffering humanity. Besides the above, the following diseases are those in which chloroform is calculated to be resorted to advantageously: Tetanus, Hydrophobia, Neuralgia, Chorea, or St. Vitus's Dance, Hooping-cough, Asthma, and many other affections of the respiratory organs. The dose internally is from five to twenty drops in mucilage, or sugar and water, repeated more or less frequently, depending upon the urgency of the case.

CLYSTERS, INJECTIONS.

The employment of this mode of acting on the bowels dates from an early period, and at this day injections are

in general use and highly praised. In many cases injections are preferable to cathartics. They are used either to produce an immediate evacuation from the bowels, to assist the operation of medicines given by the mouth, or to support the system where the patient cannot swallow, or where the stomach, from great irritability, or other causes, cannot retain nourishment or medicines. When we wish to evacuate the contents of the lower bowels, an injection of one or more pints of cool, or tepid water, alone, or with one or two tablespoonfuls of common salt dissolved in it, will generally answer. Common soap-suds is a very certain injection. In affections of the head, injections daily repeated are very important; and in nervous headache, an injection of cold salt and water, repeated every morning, has frequently succeeded in effecting a cure.

In cases of ascarides, the small worms existing in large numbers in the rectum, or lower bowels, injections are especially serviceable; one of the most certain is made by mixing one or two tablespoonfuls of oil of turpentine, and the yolk of one or two eggs in a pint of flaxseed-tea, or mucilage of gum Arabic. Emollient, anodyne, and astringent injections are much used in dysentery and diarrhœa. The tobacco injection is made by infusing twenty or thirty grains of tobacco in one pint of boiling water, for five or ten minutes, and straining. In strangulated hernia and cases of poisoning, this may be resorted to, but being at all times a dangerous remedy, requiring much caution in its use, it is best to give it in divided quantities. The fumes of tobacco may be used instead of the infusion, and are considered a safer remedy. The bowl of a common pipe being filled with tobacco and lighted, the stem being greased, is introduced into the rectum a few inches; over the bowl is placed a rag, and by blowing through the rag, the smoke is forced upwards into the intestines.

Nourishing injections of chicken, beef, or mutton broth, have succeeded in supporting life for a long time, where swallowing could not be performed, or the stomach retain nourishment, in which cases, they should be repeated every two or three hours. The usual quantity for an ordinary injection for an adult, is from two to four pints, and for

an infant, from three to six tablespoonfuls, according to the age.

In cases of poisoning, particularly from narcotics, an injection of tartar emetic will frequently succeed in producing powerful vomiting, and prove the means of saving life where swallowing cannot be performed, or when the stomach-pump cannot be procured.

It should be remembered that when an individual is suffering intense pain, the system is, to a great degree, insusceptible to the action of narcotics; and in such cases, not only may the quantity given by injection be larger than usual, but it should be repeated in a shorter time than under other circumstances.

The following are some of the ordinary mixtures for injections when intended to act freely:

Two tablespoonfuls of common salt, or castor oil, four to six tablespoonfuls of molasses, and half a pint to a quart of warm water, or flaxseed tea. Or, half a pint to a pint of senna tea, to which may be added four to six tablespoonfuls of molasses, or oil, or both.

One or two pints of soap-suds is a common and excellent injection.

Anodyne injections are made by adding from twenty to fifty drops of laudanum to two, four, or six tablespoonfuls of flaxseed tea, gum water, or water, which may be repeated every few hours if necessary.

COD-LIVER OIL.

The benefits resulting from the use of this oil in many diseases have been partially known and acted on for many years; but latterly it has been brought more prominently before the profession, in consequence of its alleged property of accomplishing more for the relief and cure of the many symptoms which, combined, produce the too-well-known disease Consumption. This oil has proved itself deserving of great praise, and will frequently do more than any other article, heretofore brought into notice, for the treatment of consumption; yet must it not be forgotten that many other remedies have, within the last century, been heralded for the same purpose, with equally strong lauda-

tory language, and yet now, where are they? or what in reality have they accomplished in the way of curing that insidious disease? The peculiar properties of this oil, well calculated to meet the prominent indications and symptoms appertaining to consumption, encourage the fond hope that, in conjunction with a more consistent course of proceeding, as to diet and exercise in the fresh air, the heretofore almost proverbial incurable consumption may be forced to yield to the power of a rational treatment. In reference to the real value of Cod-Liver Oil, agreeing for the most part with the opinions of Dr. Wood, as published in his Practice, I take the liberty of extracting the summary of his remarks for the benefit of all interested in the subject. Dr. Wood says, "The following, so far as I am capable of judging from my own observation, and the recorded experience of others, appears to be the real value of the remedy. It does not act as a specific, and is wholly incapable by any direct influence of its own, to cause the removal of the deposited tuberculous matter. But it invigorates digestion, improves the character of the blood, and by a peculiar power modifies the nutritive process, so as to obviate, in a greater or less degree, the tendency to the deposition of tuberculous matter. When this tendency is not very strong, and other suitable measures are made to co-operate with the oil, it appears capable of arresting the further formation of tubercles altogether. But the matter deposited must pass through its own destined changes. If small in quantity, as in the earliest stage of the disease, it may undergo the calcareous metamorphosis, and thus cease to do harm. If larger, it must soften and be discharged, leaving a cavity, which may ultimately heal, if not increased by further accessions of tubercle. If *abundant, it must undergo the same change, and then must necessarily prove fatal,* should so much of the lung be destroyed in the process as to render the remainder insufficient to fulfil the purposes of respiration, or should *the strength be inadequate to support the exhausting effects of the necessary irritation and suppuration.* It is seen, therefore, that Cod-Liver Oil, though a very valuable agent, perhaps the most valuable, should be looked on only as *one of the means of confirming the general health,* and

thus affording the best possible protection against the further progress of the malady, and enabling the system to withstand the depressing and exhausting influences necessarily exerted upon it in the elimination of the tuberculous matter. These views are certainly encouraging, and they would seem to be supported by the fact of the recent diminution of the general mortality from consumption, as evinced by the statistical reports in the city of Philadelphia, which can be ascribed to no other known cause than the general use of Cod-Liver Oil. But *great care* must be taken to *guard against the error of relying upon this alone, to the neglect of exercise, exposure to pure air,* and the *various other methods of invigorating* the system already referred to. A tablespoonful of the oil should be given three times a day, and the remedy persevered in for many months, nay, interruptedly, even for years, should it continue to agree with the patient, and the disease not appear to be sooner eradicated. As the diathesis is often constitutional and inherited, it will be necessary to be always on the watch, even after the disappearance of the symptoms, in order to meet them promptly should they return. As the oil favors the production of a rich blood, it is obvious that, upon the occurrence of hemorrhage from the lungs, or acute inflammation, it should be suspended until these have been subdued, and then resumed." Thus concludes Professor Wood, and certainly most encouragingly to all laboring under or predisposed to the disease consumption.

COLUMBO.

A good tonic, not possessing astringent properties, is particularly useful in general dyspepsia, and debility in convalescence from acute diseases. In some cases of indigestion, attended by habitual flatulence, the following will often prove serviceable. Infuse in one pint of boiling water, half an ounce of columbo, half an ounce of Jamaica ginger, one drachm of senna, and a few cloves. One or two tablespoonfuls for a dose, three or four times a day.

COOLING MIXTURE.

Dissolve two grains of tartar emetic, one teaspoonful of

saltpetre, and two tablespoonfuls of Epsom salts, in one pint of water. Dose, one or two teaspoonfuls every one or two hours. As a mild, cooling laxative and diaphoretic, this will frequently prove serviceable in cases of fever, or whenever the skin is hot and dry, and the pulse quick, hard and full.

CORROSIVE SUBLIMATE.

This powerful preparation of mercury is used with the greatest advantage in many severe diseases generally of a chronic character. It is less apt to salivate than most other preparations of mercury, and is often found to cure the disease without any of the ordinary manifestations of the effects of mercury upon the general system. In large doses, it occasions nausea, vomiting, griping pain in the bowels, diarrhœa, and other symptoms of irritation in the intestines. In yet larger doses, it acts as a powerful poison, highly destructive to life. Its use in the treatment of syphilis dates from an early period, and it is considered to be superior to other preparations of mercury in the different stages of that disease, more especially those of a secondary character. In many cutaneous diseases of an obstinate or chronic character, it will frequently succeed in effecting a cure. Externally used, in solution it proves highly beneficial as a wash in many diseases of the skin, old ulcers, and some cases of ophthalmia. Combined with an equal weight of sulphate of zinc, Dr. Physick used it with great success in cases of malignant onychia or whitlow, dusted on the surface of the sore, and then covered with lint saturated with tincture of myrrh. Dose, from one-twelfth, to one-fourth of a grain, in a pill, or dissolved in water or diluted alcohol.

COUGH MIXTURE.

Dissolve four tablespoonfuls of sugar-candy or loaf sugar, and two tablespoonfuls of gum Arabic, in half a pint of water, and add two tablespoonfuls of paregoric, three teaspoonfuls of antimonial wine, and one tablespoonful of sweet spirits of nitre. Give a tablespoonful every hour or two.

COWHAGE.

An effectual and safe vermifuge, acting mechanically upon the worms. The mode of giving it is to mix it well with syrup or molasses, to make an electuary; the dose is from half a teaspoonful to one tablespoonful according to the age, every morning and evening for three or four days. It is advisable, before giving this electuary, to premise one or two active cathartics. The cowhage, applied to the skin, produces intense itching, care should therefore be observed in handling it.

CREAM OF TARTAR.

An excellent cooling diuretic and laxative. One or two tablespoonfuls dissolved in a pint or more of cold water, and sweetened, should be drank freely, one or more wine-glassfuls every hour or two. In small doses one or two teaspoonfuls cream of tartar act as a cooling aperient. In larger quantity it will produce copious watery stools, for which reason it is much used in dropsy. One part of jalap and two of cream of tartar act pretty powerfully as a cathartic, producing copious watery stools, hence its great reputation in cases of dropsy of all kinds.

CREAM OF TARTAR LEMONADE.

Pour one pint of boiling water upon one tablespoonful of cream of tartar, and a few pieces of lemon peel; when cold, strain, and sweeten to suit the taste. As a pleasant, cooling, and slightly laxative drink, this may be used freely in febrile diseases.

CUBEBS.

This species of pepper is diuretic, and possesses no little power in allaying irritation in the urethra, and is much used in gonorrhœa. In cases of weakness, relaxation, or want of tone in the bowels, as well as in piles and the whites of females, it is often used advantageously. Dose of powder, half to one teaspoonful in water, three or four times a day.

DANDELION.

This is aperient, alterative, and diuretic. In jaundice, obstructions of the liver, and some cutaneous eruptions, the

German physicians use it largely, and praise it highly. The root or extract may be used. Dose of extract, from ten to forty grains, three times a day, and of the root, four or five ounces boiled, in a quart of water, down to a pint. A teacupful three or four times a day.

DEMULCENTS—EMOLLIENTS.

These are substances used externally or internally, to prevent, or diminish the action of irritating matter upon any part of the body, by sheathing or defending the surfaces with which they come in contact. Where poisons have been swallowed, or in cases of irritation, or inflammation of any part of the air-passages, stomach or bowels, kidneys or bladder, they are given with benefit. Used internally, they possess nutritive properties, and in acute febrile or inflammatory diseases, contain sufficient nourishment for the wants of the system. Warm water, applied externally, is one of the best emollients, and the idea has been entertained, that to the water alone, is due all the power of the different stupes or poultices applied externally.

The principal articles of this class, are, Almond Milk, Barley-Water, Rice-Water, Carrageen, or Irish Moss, Iceland Moss, Flaxseed, Gum Arabic, Chia Seed, Pith of Sassafras.

DIAPHORETICS.

These are medicines which excite or increase the cutaneous exhalation, producing perspiration or sweating, or a discharge from the skin. Properly applied, diaphoretics, as a depleting remedy, act beneficially, by lessening the force of the heart and arteries, by direct evacuations from the skin. In endeavoring to produce perspiration, as a remedial agent, the patient should be kept in bed, and made to drink freely of diluent drinks. The temperature of the drink and the quantity of covering must necessarily depend upon the heat of the skin and the condition of the stomach, as well as the desire of the patient.

In the application of this class of medicines, it should be remembered, that when considerable febrile action exists, with a hard and frequent pulse, a hot and dry skin, with fulness or heat in the head, bleeding, cold ablutions, or

sponging the body, and the use of antimonials, will often be required before perspiration can be produced. Where, on the contrary, the skin is pale, cold and shrivelled, with a weak pulse, the more stimulating diaphoretics, in conjunction with hot drinks, will become necessary to accomplish the object. In certain stages of febrile diseases, of almost every character, the use of diaphoretics will frequently be found of great value.

The principal articles of this class, are, Tartar Emetic, Antimonial or Fever Powders, Dover's Powders, Boneset, Saline or Neutral Mixture, Effervescing Mixture, Guaiacum, Sulphur, Sweet Spirits of Nitre, Spirits of Mindererus, Ipecacuanha.

DIETETICS, NUTRIENTS.

The importance of a judicious administration of well-prepared articles of diet, in assisting the efforts of physicians to cure diseases, cannot be too strongly urged. By it alone, many diseases, in their forming stage, may be cut short; or, if further advanced, the proper action of such remedies as may be demanded by the symptoms and stage of the disease will be facilitated, and the physician better enabled to form a correct opinion of the actual condition of the different organs.

The most usual nutrients for the sick are Arrow-root, Gruels of Oatmeal, Rice, and Corn; Sago, Tapioca, Panada, Rennet, Jelly, Beef-tea, &c.

In reference to the various articles of diet, as a general rule, says Dr. Combe, animal food is more easily and speedily digested, and contains a greater quantity of nutriment in a given bulk, than either herbaceous or farinaceous food; but, apparently from the same cause, it is also more heating and stimulating.

Farinaceous food, such as rice, sago, arrow-root, and gruel, are also rapidly assimilated, and prove less stimulating to the system than concentrated animal food. Milk ranks in the same class, the stomach being in a healthy state.

The other kinds of vegetable substance are the slowest of all in undergoing digestion, and very frequently pass

out of the stomach, and through the bowels, comparatively little changed; hence the uneasiness which their presence so often excites in the bowels, especially in persons of weak digestion. In a given bulk, they contain less nutriment, and excite the system less, than any other kind of food. They are, therefore, well adapted for the diet of those in whom it is necessary to avoid every kind of stimulus, and who are not subjected to great muscular exertion, while for those undergoing hard labor, they afford inadequate support.

Liquids, soup, for example, are slow of digestion, and hence are unfit for most dyspeptic patients. Before the gastric juice can act upon them, the fluid part must be absorbed, and the mass thickened to a proper consistence for undergoing the usual churning motion.

DISINFECTANTS.

These are used for the purpose of correcting or removing unhealthy odors from a sick-room, and have been supposed by some to possess the power of destroying those emanations or exhalations, whether of a malarious or other character, capable of producing disease. The best disinfectant, or corrector of odors in a sick-room, is unquestionably a free current of fresh air, avoiding in certain cases the direct passage of air over the patient. Pouring a small quantity of sulphuric acid upon nitre or saltpetre, or sprinkling the floor with, or standing in the room, vessels containing chloride of soda, or a solution of chloride of lime, is much practised.

DIURETICS.

These are medicines which increase the action of the kidneys, and the discharge of urine. As a general rule, in giving diuretics, the body should be kept cool, febrile action diminished, and cool, diluent drinks allowed freely. In diseases of the kidneys and bladder, this class of remedies is especially useful. Exposure to cold air, walking on a cold floor, immersing the feet in cold water, or cold applications to the pubes, or lowest part of the stomach, will often excite the action of the urinary organs, when other

and apparently more active remedies had failed. In the treatment of dropsy, no remedies prove more generally efficacious as curative agents than diuretics, which, when brought to act fully, will rarely fail to moderate or remove the disease.

The principal articles of this class are: Spirits of Nitre, Balsam Copaiva, Water (perhaps the best of all), Mustard Whey, Saltpetre, Cream of Tartar, Parsley, Carrot, Watermelon, and other seeds.

DOVER'S POWDER.

A combination of opium, ipecacuanha, and sulphate of potash, long celebrated as an anodyne diaphoretic, in rheumatism, affections of the lungs, pleura, or bowels. The dose is from ten to fifteen grains at bedtime, or in smaller quantities, repeated every two, three, or four hours. A warm drink, as lemonade, balm, or sage tea, taken one or two hours after the dose has been given, will materially assist its operation.

Dover's powder may often be given with advantage, in cases where opium by itself might be inadmissible. In dysentery and diarrhœa, it often proves highly beneficial and curative.

DRINKS.

Most of the articles named under the head of demulcents belong properly to this class, and may be used advantageously in cases of fever and inflammation.

To repair the natural waste of the fluids of the body, to assist the operation of diuretics or diaphoretics, to sheathe or protect the irritated or inflamed mucous membrane of the air passages, stomach, bowels, kidneys, or bladder, and allay febrile heat, the free use of drinks, cold or hot, according to the state of the system, or desire of the invalid, is demanded. As a general rule, the feelings of the patient may regulate the quantity; occasionally, however, where a particular effect is desired, it is preferable to give a certain quantity at regular intervals. In the acute stages of febrile and inflammatory diseases, most of these drinks con-

tain a sufficient amount of nourishment to supply the wants of the system.

The principal articles of this class are: Water, Apple Water, Cremor-Tartar Whey, Lemonade, Orangeade, Toast-water, Whey.

EFFERVESCING MIXTURE.

Dissolve thirty grains of salt of tartar in a wineglassful of water, add one tablespoonful of lemon juice, or ten grains of tartaric or citric acid, dissolved in one tablespoonful of water, with sugar, if desired, and drink while effervescing. This is a cooling draught, given with great benefit in fevers, or to allay nausea, and check vomiting. It may be repeated every one or two hours.

EGG FLIP.

The yolk of one or more eggs beat up with half a tumblerful of cold or hot water, for ten or fifteen minutes, adding sugar, nutmeg, and wine or brandy, makes a pleasant nourishing drink in convalescence from most diseases, and will almost always agree with the stomach.

ELIXIR OF VITRIOL.

A tonic and astringent, much employed in cases of debility, with or without night sweats, in loss of appetite, and convalescence from fevers and other sickness. In hemorrhage from the lungs, or other organs, unattended by inflammation, it is given advantageously. Dose, ten to thirty drops three or four times a day, in a tumbler half full of sugar and water, cold chamomile, quassia, or bark tea. Care should be taken that it does not injure the teeth, to avoid which it should be drank through a quill, or reed. Sweetened water, acidulated with elixir of vitriol, makes a cooling and refreshing drink in fevers.

ELM BARK.

This is an excellent demulcent, abounding in mucilage, and particularly useful in dysentery, diarrhœa, and diseases of the respiratory and urinary organs. The powder, or flour, mixed with boiling water, flavored with cinnamon,

and sweetened, will always be found serviceable in diseases of the bowels.

An infusion of the bark in cold water is much used as an expectorant and demulcent. The powder forms an excellent emollient poultice, considered milder than bread and milk, or flaxseed meal, and is much used in ulcers, burns, boils, bruises, and eruptions.

EMETICS.

These are substances which excite vomiting by a specific impression made on the stomach, independent of mere distension from quantity, or of nauseous taste and smell. Emetics are of great service in the forming stages of most fevers, especially if the stomach be in a disordered state, indicated by a furred tongue, a bitter taste in the mouth, nausea or vomiting, headache, and pain or soreness in the eyeballs.

When the stomach has been overloaded, a mild emetic, by removing the offending cause, will prevent unpleasant symptoms. In inflammatory diseases of the throat, great benefit generally results from the use of an emetic in the forming stage, and in that dangerous disease, croup, or hives, too much cannot be said in favor of the efficacy of free vomiting, with hive syrup, in the first instance, followed by nauseating doses of the same remedy, as a prompt and certain cure. In cholera morbus, whether of ordinary or malignant type, an emetic given early will most frequently arrest the further progress of the disease.

In diseases attended by plethora, or a determination of blood to the head, evinced by redness or flushing of the face and eyes, painfulness and throbbing in the head, emetics should be cautiously administered, and, as a general rule, bleeding, general or local, should previously be resorted to. In that distressing complaint, nervous or sick headache, an emetic, followed by a mild tonic purgative, will generally effect a cure. When an emetic operates too powerfully, or for too long a time, producing spasm or cramp in the stomach, its action must be restrained by administering small quantities of laudanum, paregoric, essence of peppermint or ginger, spirit of lavender, hot clove, cinnamon, and ginger

tea, or brandy and water, bathing the feet in hot mustard-water, and applying a mustard poultice, or spice plaster, flannel steeped in hot brandy, or turpentine, to the stomach, the calves of the legs, or soles of the feet.

The principal emetics are Ipecacuanha, Squill, Lobelia, Mustard, Tobacco, Tartar Emetic, Antimonial Wine, Blue and White Vitriol.

EMMENAGOGUES.

These are medicines which promote the menstrual discharge, and relieve the pain frequently attendant upon its regular appearance. In derangements of the menstrual secretion, it is important to pay attention to the digestive organs, as well as to the condition of the system; as upon these very much will depend the successful use of any article of the class.

In those cases where the discharge ceases to flow in consequence of general debility, the best curative means are those calculated to invigorate the system, as tonics, the cold bath, exercise, and a strengthening diet. Where, on the contrary, it depends upon a full and inflammatory habit, depleting remedies, as bleeding, purgatives, and a spare or farinaceous diet, become indispensable.

The principal emmenagogues are Savin, Pennyroyal, Guaiacum, Senega, Snake-root, Cantharides, Madder, Ergot, Hellebore.

ERRHINES.

Substances which produce an increased discharge of mucus from the nostrils. In a remedial point of view, they are principally employed in chronic affections of the eyes, face, and brain, and some cases of earache and tooth-ache.

The principal errhines are Tobacco and Turpeth mineral.

ESCHAROTICS, OR CAUSTICS.

These are substances possessing the power of destroying animal matter in the living body, and are employed to remove excrescences, open abscesses, change the condition of ulcerated surfaces, and form artificial ulcers.

The principal caustics are Nitrate of Silver, Burnt Alum, Blue Vitriol, Red Precipitate, Caustic Potash, the Mineral Acids, boiling fluids.

ETHER, SULPHURIC.

This antispasmodic and diffusible stimulant is transient in its operation and effects. As an antispasmodic, Sulphuric Ether is useful in asthma, hysteria, and other nervous affections, as well as in some stages of low fevers, cramp of the stomach, and flatulent colic. In sea-sickness, a teaspoonful in a wineglassful of white wine often alleviates and cures. In catarrhal complaints, attended with difficulty of breathing, the inhalation of ether, alone, or combined with laudanum, paregoric, or tincture of cicuta, will afford relief. Dose, forty to sixty drops, every one or two hours, or more frequently, and in larger doses, in severe cases. Poured on an inflamed surface, its evaporation produces an intense cold, often useful in whitlow. If evaporation is prevented by the application of several thicknesses of rag, a powerful rubefacient effect will result.

EXPECTORANTS.

These are medicines which promote and facilitate the discharge of mucus, or other matter, from the mucous membrane of the air-passages.

The principal expectorants are Squill, Senega, Snakeroot, Liquorice, Elm-bark, Gum Arabic, Gum Ammoniac, Garlic, Onions, Assafœtida, Balsam Tolu, Hive Syrup. Inhalation, properly performed, is one of the most certain and valuable.

FEVER POWDERS, FRANK'S.

Mix four grains of tartar emetic with one tablespoonful of cream of tartar, and divide into eight or ten powders. One every hour or two.

FLAXSEED.

This valuable seed possesses, in a striking degree, emollient and demulcent properties only inferior to those of the

Mexican or Chia Seed. Flaxseed is used as a tea, or infusion.

Flaxseed tea is made by washing two or three tablespoonfuls of flaxseed in cold water to remove dust, then pour upon them, in an earthen vessel, one quart of boiling water, and let it stand near the fire for one hour. Strain off the clear tea when wanted. Sugar, lemon-juice, or a slice of fresh lemon, to be added, to suit the taste. In catarrhal affections, the addition of liquorice root increases its efficacy as a demulcent drink.

Boiling extracts a portion of the oil contained in these seeds, rendering the drink less agreeable, but increasing its properties as a laxative emollient injection. The meal or flour, mixed with hot water, makes an excellent emollient poultice, well adapted to all cases where such becomes necessary.

FRUIT.

The following remarks upon the use of fruit, corresponding with my own views, that, without knowing from whom they proceed, I introduce without hesitation.

"Instead of standing in any fear of a generous consumption of ripe fruits, we regard them as positively conducive to health. The very maladies commonly assumed to have their origin in a free use of apples, peaches, cherries, melons, and wild berries, have been quite as prevalent, if not equally destructive, in seasons of scarcity. There are so many erroneous notions entertained of the bad effects of fruit, that it is quite time that a counteracting impression should be promulgated, having its foundation in common sense, and based upon the common observation of the intelligent. We have no patience in reading rules to be observed in this particular department of physical comfort. No one, we imagine, ever lived longer, or freer from the paroxysms of disease, by discarding the delicious fruits of the land in which he finds a home. On the contrary, they are necessary to the preservation of health, and are therefore caused to make their appearance at the very time when the condition of the body, operated upon by deteriorating causes not always understood, requires their grateful, renovating influences."

GALLS.

These are powerfully astringent. The powder, infusion, or decoction is used advantageously in the latter stages of dysentery or diarrhœa, the inflammatory condition having been removed. The infusion or decoction is much used as a gargle in chronic affections of the throat, and as an injection in chronic discharges from the bowels. Doses of the powder, five to ten grains, and of the infusion or decoction, two to four teaspoonfuls, two or three times a day.

GALL OINTMENT.

Made of one part of finely-powdered galls, and eight of lard, simple cerate, or stramonium ointment, this proves serviceable as an external application to piles.

GAMBOGE.

This is a powerful cathartic, apt to produce griping, nausea, and vomiting, in a full dose. Gamboge is rarely, if ever, given alone, and the violence of its action is lessened by combining it in small doses with other cathartics, whose action it increases. Combined with cremor tartar, or jalap, it forms an active purgative, much used in dropsy. The full dose of gamboge is from two to six grains.

GARLIC.

This is an excellent stimulating expectorant, generally given in the form of oxymel, or syrup. Externally applied, garlic acts as an irritant or rubefacient. Bruised and applied to the soles of the feet, garlic often produces the most beneficial results as a revulsive in diseases of the head, and the febrile complaints of children, by quieting restlessness, and predisposing to sleep. It is also useful as an application to indolent tumors. Steeped in spirits, it is used as a liniment in the spasmodic complaints of children. In deafness, a clove of garlic, or a few drops of the juice introduced into the ear, proves advantageous. In retention of urine, garlic poultices are applied to the lower part of the stomach with decided advantage.

GARLIC SYRUP.

Take a handful of garlic, bruised; vinegar, four tablespoonfuls; boiling water, one pint. Macerate for twelve or twenty-four hours, express through a towel, add an equal quantity of white sugar, and dissolve by a gentle heat. Garlic syrup is more stimulating than onion syrup, not as proper for acute colds or coughs, but decidedly superior to it in chronic colds, the coughs of old persons, and in the latter stages of hooping-cough. Dose, one to three teaspoonfuls every hour or two.

GENTIAN.

As a tonic in general debility or indigestion, this is employed with advantage. It is generally given in infusion, one ounce bruised, to a pint of cold water. Dose, a wineglassful three or four times a day.

GENTIAN, COMPOUND TINCTURE OF.

An excellent bitter, in dyspepsia, and debilitated states of the digestive organs. Dose, one to three teaspoonfuls several times a day.

GRAY POWDER, MERCURY WITH CHALK.

This is a very mild medicine, and as an alterative in the bowel affections of infants, it is used very advantageously. The dose is from one grain to three or four grains three times a day.

GRUEL, OATMEAL.

Mix two or three tablespoonfuls of oatmeal in a little water, which stir into a quart of boiling water, and continue the boiling for fifteen or twenty minutes, stirring constantly. Strain, and add sugar, or salt, to suit the taste. This gruel may be made with milk, or milk and water. Nutmeg, cinnamon, or a slice of fresh lemon may be added, when not forbid by particular symptoms.

GRUEL OF CORN MEAL

Is made in the same manner, and used for the same purposes as the above. Indian meal gruel frequently produces

a relaxation of the bowels, and may be inadmissible where a predisposition to looseness exists. These are mild nutritious articles of diet, generally of easy digestion, much used in chronic, as well as in convalescence from acute diseases.

GRUEL, RICE.

Mix three tablespoonfuls of rice flour, with two quarts of water. Boil slowly for half an hour, then add a few bits of cinnamon, and continue the boiling ten minutes longer. Strain, and add sugar to suit the taste. In convalescence from dysentery, diarrhœa, and other diseases, this constitutes a suitable and agreeable article of diet. When proper, nutmeg and wine may be added; at all times it may be flavored with orange-flower or rose water.

Rice gruel may be made with the whole rice, when the flour cannot be had, requiring longer boiling, and being pressed through a piece of muslin.

GRUEL, SAGO.

Wash one or two tablespoonfuls of sago, in half a pint of water. Pour one pint of water upon the washed sago, allow it to macerate for one hour, then boil gently, stirring constantly, for fifteen or twenty minutes, or until the mixture becomes smooth and thick, like jelly, and add salt or sugar.

GUAIACUM, TINCTURE OF.

In suppression of the catamenia, and in dysmenorrhœa, attended with excessive pain, this is given with success in doses of one or two teaspoonfuls, three or four times a day, mixed with milk, mucilage, or sweetened water. It is also used advantageously in chronic rheumatism and gout.

GUAIACUM, VOLATILE TINCTURE OF.

This is used in the same diseases, and in similar doses as the last.

GUAIACUM, DEWEES' TINCTURE OF.

This preparation was introduced, and highly praised by the late Dr. Dewees, in suppression of the menses, and

dysmenorrhœa, in which diseases he considered it superior to any other preparation of guaiacum. The dose is the same as that of the simple tincture.

GUM AMMONIAC.

As an expectorant, it is serviceable in the coughs of old persons, and in some cases of asthma. It may be given in pills, though generally preferred as an emulsion, made as follows : Gum ammoniac, two to four drachms ; gum Arabic, the same quantity, to be rubbed down with half a pint of water. Dose, one tablespoonful every one or two hours. Paregoric, and any of the preparations of squill, may be advantageously combined with it. Gum ammoniac, spread upon sheepskin or muslin, and applied to indolent swellings of the joints, is regarded as a valuable discutient.

GUM ARABIC.

As an expectorant or demulcent, gum Arabic, dissolved in cold water, is of great use in affections of the throat, lungs, or bowels. The gum in lump should always be used when a drink is required. The powder rubbed down with water, one teaspoonful to one tablespoonful of water, forms a mucilage used to suspend oils, balsams, and other articles. As an article of diet in febrile, and other cases requiring adherence to a rigid regimen, gum Arabic is perhaps superior to other substances. Six ounces a day are said to be sufficient to support life in a healthy person.

GUM ARABIC WATER.

Dissolve, by constant stirring, three or four tablespoonfuls of lump gum Arabic in one or two tumblerfuls of cold water. Gum water, made with the powdered gum and hot water, though sooner dissolved, is not so agreeable to the taste of invalids. As a demulcent drink in inflammatory affections of the throat, lungs, stomach, bowels, kidneys, and bladder, it may be drank freely with advantage. Sugar, lemon-juice, or tartaric acid may be added.

HARTSHORN, SPIRITS OF.

This or the stronger aqua ammonia, is much used wher-

ever an active rubefacient is required. It may be applied pure, by soaking a pledget of four or five folds of linen in it, applying this to the part, and covering with a towel to prevent evaporation; it may be used as a liniment combined with an equal part of olive oil, spirit of camphor, or soap liniment. Laudanum is usefully conjoined where an anodyne effect is required.

HIERA PICRA.

This well-known and useful domestic remedy, is made by mixing three parts of powdered aloes with one of powdered canella alba. The dose of the powder is from five to fifteen grains, and is generally taken in wine or spirits.

HIVE SYRUP, COXE'S.

A combination of squills, senega, snakeroot, tartar emetic, water, and honey. As an expectorant, this is unsurpassed, if equalled, by any remedy in use. As an emetic, particularly in croup or hives, it is unquestionably superior to any other, and given promptly, in sufficiently large and frequently repeated doses, it will rarely fail to overcome that formidable disease of childhood. Dose, from ten to forty drops every one or two hours, according to the age of the person. In croup, the dose must be larger and more frequently repeated, until nausea and vomiting are produced, after which, smaller doses are to be given to keep up the impression.

INHALATION, MEDICAL.

By Medical Inhalation, is to be understood the inspiration of air, impregnated with the active principle of medicines, calculated to produce a local remedial effect upon that part of the mucous membrane of the respiratory organs which may be in a morbid condition, and, indirectly through it, upon those diseases implicating other portions of the lungs.

To accomplish this object in a perfect manner, two modes may be employed.

One, by causing the patient to breathe in a close room, the vapors or fumes of such medicines as may be appropriate

to the existing disease. This is readily accomplished by placing the solid or fluid medicine in a vessel over live coals, or an ordinary nursery lamp will answer the purpose.

The other most efficient and only proper mode, is by a properly constructed inhaler, consisting of a vessel of glass, or other material, with a tightly fitting top, and two tubes, one, extending internally from the upper surface of the cover to within half an inch of the bottom, the other extending from the under surface of the cover, six or more inches in length. Through this external tube, furnished with a mouth-piece, inspiration or inhalation is to be carried on, and expiration through the nostrils. The medicated fluid being poured into the inhaler, inhalation is effected by drawing into the lungs, through the external tube, the air contained in the inhaler over the surface of the fluid. The air thus inhaled, has its place naturally supplied from the external air by the inner tube, and passing through the medicated fluid, is impregnated with the active principle of the medicines employed.

Such is medical inhalation, and it follows necessarily, that if the air does extract the medicinal properties of the articles employed, these must be applied to every portion of the mucous membrane of the air-tubes, thus exerting a decided curative force.

That this effect does result, cannot admit of a doubt, and requires no reference to the numerous facts and experiments easily adduced in proof of it. The important point is the selection of the appropriate remedy, or combination of remedies known, when thus applied, to exert a curative influence. By means of the inhaler thus described, the following are some of the remedies used, resulting in alleviating or curing diseases, that have proved incurable by the ordinary modes of treatment: balsam copaiva, creasote, tar, naphtha, turpentine, cyanuret of potash, iodine, iodide of potash, assafœtida, camphor, the various narcotic extracts and tinctures; tannin, galls, cayenne, in decoction and tincture; tincture of iodide of iron, the infusion or decoction of different tonic and astringent vegetables, &c.

This manner of employing medical inhalation originated with Dr. Mudge, an English physician, who published a

work on the subject in 1799, in which is delineated and described a correct inhaler as above.

Until the last fifteen years, the inhaler used in the United States, though called by his name, resembled the original only in external appearance, wanting the most important part, the internal tube, to allow the passage of the external air through the medicinal fluid contained in the inhaler. This fact offers a sufficient explanation of the disappointment resulting from the employment of that misnamed inhaler, or its usual substitute, a common teapot. If the top of this inhaler or teapot be tightly fitted, it is manifestly impossible to inhale more than the limited quantity of air existing over the surface of the fluid in the inhaler; and if the top does not fit accurately, it is equally evident that the air inspired can only be that entering from without, to supply the place of that inspired, but not passing through the medicinal fluid. In either case, it is clear, that the air not passing through the fluid, cannot contain a particle of medicinal power. Inhalation thus practised, certainly does not deserve to be noticed by those, who, in their practical works, allude to medical inhalation as a means of cure or alleviation.

The reason of my personal and practical interest in this valuable remedial agent, proceeds from my having suffered for many years from a severe and constant disease of the larynx, attended by pain, hoarseness, at times total loss of voice, and copious muco-purulent expectoration. Deriving no permanent benefit from eminent physicians of Philadelphia, or of Trousseau and others of Paris, and finding a long-continued rigid system of diet, frequent leeching, cupping, bleeding, blisters, tartar emetic ointment, setons in the throat and breast, a winter's residence in the island of Madeira, and three years in Nice and other parts of the South of Europe, unable to effect a cure, I fortunately resorted to medical inhalation, properly so called, which succeeded most perfectly. It may not be amiss to state, that I had previously given a most ample and long-continued trial to the incorrect mode of inhalation which had been recommended, without the slightest benefit.

A strong argument in favor of a more general and perfect

trial of medical inhalation, is deduced from the consideration of two well-established facts in reference to those prevalent and fatal diseases, consumption, bronchitis, and laryngitis, for which it is recommended as a means of prevention and cure.

The first is, that the diagnosis of the healthy or morbid condition of the respiratory organs, is at present more readily and certainly ascertained than before the discovery of the immortal Laennec.

The second, that notwithstanding this advance, this possibility of effecting a cure in confirmed cases of the above diseases, is by many considered problematical, or at least, of exceedingly rare occurrence.

The statistics of our country and Europe, prove the generally fatal termination of those diseases, regardless of the system of treatment persisted in. In the exceptional cases, where a cure does result, it may be questioned whether such is due to the medical treatment strictly speaking, with the exception of that part, having a tendency to maintain and increase the general strength, thereby enabling the restorative power of nature to heal by her laws, those morbid conditions, depending upon many general causes, and requiring the aid of hygienic, rather than medical treatment. Numerous authorities could be cited to prove that the commencement of many diseases for which medical inhalation is particularly proposed, depends upon a morbid or depraved condition of the system, either hereditary, or resulting from the combined influence of poor living, impure air, and a total disregard of common sense in respect to clothing, exercise or diet, finally localizing itself upon the important pulmonary organs, thus undermining the mainspring of health, and rendering, after a time, all efforts to arrest its progress of no avail. It necessarily follows, if we are to hope for improvement in the treatment and termination of the diseases alluded to, that we must not wait until we have presented all the symptoms indicating the firm hold upon the organs, but rather watch for the forming germ, and adopt hygienic and other measures, to arrest and overcome the morbid predisposition, and force or coax nature to repair the evils resulting from a combination of causes, favorable to the

rise and progress of an almost incurable disease. As one of the means, well calculated to aid in the accomplishment of so desirable an end, by giving vigor to the pulmonary organs, and others connected with them, I have no hesitation in assigning a very prominent place to medical inhalation.

In pursuing the consideration of this curative agent, it is necessary to inquire into its mode of action, which I regard as twofold. The one, altogether mechanical, consisting in the gradually increased expansion of the lungs, by drawing a large volume of air into them, allowing them to remain in this expanded state for as long a time as can be endured without uneasiness, and finally permitting the air to be expired slowly through a valvular opening of the lips, a small reed, or quill, or one of the many breathing-tubes made for that purpose, though in no respect superior to the other modes. By repeating this process more or less frequently, during the day, for fifteen or twenty minutes each time, we have an increase of size, or capacity and strength, and as an effect, a permanent enlargement and strength of the thorax, an increased action of the heart, with a more perfect distribution of blood to all parts of the system.

The second consists in the remedial and curative power exerted by the local application of such remedies as may be indicated by the symptoms of each case, and the stage of the disease.

By the correct adaptation of remedies to the existing disease, we can produce positive effects, similar, often superior, to those resulting from the internal exhibition of medicines, with the advantage of not harassing the stomach and bowels.

If successful in establishing what may correctly be attributed to the local application of remedies, may it not be expected, that inhalation will be more generally brought into notice, its claims upon the profession more clearly defined, and the proper manner of using it, as well as the medicines to be employed, more specifically laid down for the guidance of those who may desire to benefit others by its employment?

In endeavoring to place medical inhalation upon its proper basis, let it not be supposed that impossibilities can be effected, by restoring to perfect health those already at the

verge of the grave. Let it rather be regarded as a remedy to be employed at the forming stage of the disease, or, in those cases where such may be apprehended, to impart vigor to the thoracic organs, and thus arrest the progress of morbid action.

An occasional trial will not suffice to decide as to the actual value of this remedial agent; time, perseverance, and a continued series of observations are indispensable. The end to be attained is certainly deserving of our most strenuous exertions. In the following observations and conclusions of those who have recorded their experience, it will be seen, that some allude to the mechanical action of inhalation, others to the curative effects resulting from the different medicines employed. Dr. A. T. Thomson says, "There is one description of exercise too little attended to, but which is nevertheless of great importance in warding off pulmonary diseases, namely, the exercise of the chest. Nothing is more essential for the preservation of health, than the full expansion of the lungs, so as to maintain the free passage of the air to the minutest tubes and all the air-cells, to promote the pulmonary circulation, and to favor that complete change in the blood, for which the respiratory motion is intended." Dr. Tweedie says, "Changes of structure in the bronchial tubes, are most commonly the result of inflammation, or of some kindred modification of the nutritive process. Frequent recurrence, or long continuance of inflammation of the bronchial membranes, as in other structures, changes their condition, and the mechanical forces to which they are subjected in the junction of respiration, may variously modify this change. Inasmuch as these lesions seem to arise from continued inflammation, it becomes of the more importance to direct remedies against those forms of bronchitis, that are habitual, or frequently recurring. An imperfectly cured cough will often harass a patient for months, and even for years. In process of time, the breathing becomes permanently shortened, and an irritation is often fixed in some of the tubes, manifesting its effects on their secreting function by habitual expectoration, generally thin and mucous, sometimes muco-purulent. There is one point with regard to treatment particularly suggested

by a knowledge of this change of structure,—that, not only should the practitioner persevere in the use of the means which tend to eradicate the low degrees of inflammation that produce it, but he also should endeavor to countervail, by mechanical means, that mechanical limitation, which this change induces in the size of the tubes. If the patient use no exertions, and give his lungs little play, any increase in the rigidity of the tubes will more readily fix them in their present contracted state; but if he take moderate exercise, increased as habit improves his power, the lungs will be kept in that free mobile condition that is least favorable to rigidity or deposition of any kind. Probably, special efforts of inhalation would be useful with the same view, and, as this might be combined with some mildly stimulating vapor, such as that of water impregnated with tar, or camphor, it might also be serviceable in improving the secreting properties of the membrane."

Dr. Good observes, "A moderate use of the vocal organs, as of any other, tends to strengthen them, and to enable public speakers, singers, and performers on wind instruments, to go through great exertion without inconvenience, which would be extremely fatiguing to those who are but little practised in any of these branches; but the labor is often carried too far, and the lungs become habitually irritated, and hæmoptysis succeeds. The organs of respiration, like those of every other kind, derive strength instead of weakness from a temperate use of them."

Says the eminent Professor Rush, "Those persons who have been early instructed in vocal music, and who use their vocal organs moderately through life, are seldom afflicted by a hemorrhage from the lungs. Lawyers, players, public criers, and city watchmen, all of whom exercise their lungs either by long or loud speaking, are less affected by this disease than persons of other occupations. The lungs, when debilitated, derive equal benefit with the limbs, or other parts of the body, from moderate exercise."

Dr. Mudge says, "The two great indications, of preventing an increased irritation by the cough on the inflamed parts, and removing inflammation itself by such

emollient applications as could most conveniently be applied to them, are thoroughly answered by opium, and the inhaling warm steams into the lungs, and the fact is past dispute, that the conjoined powers of those agencies are a sure and, in general, an immediate cure."

Van Swieten remarks, "It is certain that steam and vapors drawn in with the air in respiration may be of use, as they everywhere come in contact with the whole aerial cavity of the lungs, and thus various remedies may be applied, according to the various conditions of the ulcer."

Dr. Baillie says: "In quinsy, should leeching and other treatment not materially lessen the inflammation of the tonsils and velum palati, the progress of the inflammation should be encouraged by inhaling the vapors of boiling water and vinegar, as by this means the disease goes more quickly through its process, and the patient suffers less."

Dr. Crichton, after giving cases in which fumigations of tar had been used, remarks: "It must be evident from the preceding cases that the tar fumigations, though completely successful in some of them, did not produce the same good in all, but, on the other hand, the very great relief which every patient has experienced at first from it, particularly in the diminution of cough, expectoration, and hectic fever, is a fact which ought to encourage us to multiply the trials of this remedy as far as possible."

Delpit observes: "If any species of consumption exists in which simple or compound fumigations become useful, it is certainly in that of the larynx, more accessible and susceptible to their influence."

Mascagni says: "If an efficient remedy for diseases of the lungs is ever discovered, it will be one that can be applied by inhalation."

Dr. Pearson found the vapor of ether serviceable in cases of consumption, and that, in some cases, combined with musk, camphor, opium, assafœtida, and similar articles, it appeared to possess greater power.

Dr. Ramage lays great stress upon the advantages resulting from the free use of inhalation through a long tube, which is altogether mechanical in its action. He says: "Inhalation performed two or three times daily, for

half an hour each time, will, in the short space of a few weeks, work a wonderful change on the chest externally; the muscles concerned in respiration will be manifestly enlarged, and the bony compages of the chest visibly increased, whilst, at the same time, the natural respiratory murmur will be heard far more distinctly than ever."

Dr. Elliotson says: "I have made my phthisical patients breathe for four or five minutes, four or five times a day, through a mixture of creasote with mucilage and water, but with no further effect in general than occasionally an increased facility of respiration, and a diminution of the cough and expectoration. Some it always appears to irritate, and all in whom any degree of inflammation exists. I am satisfied it is no remedy for tubercles. Where, however, only a single ulcer, or but a small number, exist in the lungs, and there is no disposition to further tubercular formation, it is very beneficial. In bronchorrhœa, or that state of the bronchial mucous membrane which consists in a profuse secretion without inflammation, I have seen its inhalation of essential service, and in one instance of this affection in which the expectoration was extremely offensive, the cure was very rapid. In asthma, also, dependent upon morbid excitability of the bronchial membrane, its inhalation is often useful."

In chronic affections of the fauces, larynx, trachea, and bronchi, I have frequently employed creasote by inhalation, generally combined with other medicines, with marked benefit; and while the testimony of Dr. E. is decidedly favorable to its use, it clearly shows the necessity of discrimination in the selection of remedies, no less than attention to the existing stage of the disease.

Dr. Mackintosh remarks: "The inhalation of hot vapors will be found very serviceable in croup, and in chronic complicated cases of bronchitis, service may be expected from the inhalation of tar vapor. In scarlet fever, when the throat is much affected, inhaling the vapor of warm water affords more ease than any gargle."

Dr. Eberle says: "The inhalation of aeriform fluids may be employed to great advantage in the treatment of pulmonic affections. In this way we are enabled to make

direct impressions on the respiratory organs, a circumstance which experience has shown to be of much consequence in many of the diseases to which these organs are liable. In catarrhal affections, attended with painful and difficult expectoration, much benefit may generally be obtained from the inhalation of the steam of hot water, or of vinegar and water. This acts as an emollient and soothing application to the tender and inflamed vessels of the internal surface of the bronchial tubes.

"In pneumonia, after the violence of the arterial excitement has been reduced by depletory measures, the inhalation of the steam of hot water, or decoctions of emollient herbs, will often contribute much to the support of an easy and regular expectoration. In no affection, however, are inhalations of this kind more decidedly beneficial than in the paroxysms of asthma. Inhalations of warm water and vinegar are often very serviceable in cynanche tonsillaris and trachealis. The inhalation of ethereal vapors is a remedy of very considerable value in certain affections of the respiratory organs. In dyspnœa, depending on a spasmodic condition of the pulmonary system, I have frequently derived very great benefit from the inhalation of the vapors of sulphuric ether. In two cases of hooping-cough that had been mismanaged during the early period of the disease, and in which the expectoration had assumed a purulent appearance, I have derived decided benefit from tar fumigations. This remedy has also been found very useful in asthmatic affections. In acute inflammatory diseases of the lungs, however, it cannot be employed without doing mischief. The inhalation of the tar fumes appears to be particularly beneficial in chronic bronchitis, or in that form of pulmonary consumption which depends on chronic inflammation of the mucous membrane of the bronchi."

Dr. Thomas observes: "To moderate the severity of the paroxysms in asthma, we cannot employ a more powerful and efficacious means of relief than the inhalation of steam frequently from an inhalator; an infusion of chamomile flowers, with the addition of a little ether, may be used on the occasion."

Sir C. Scudamore remarks: "Much professional scepti-

cism appears to be entertained concerning the possibility of affording any material relief in cases of consumption. This I must condemn. It is I conceive less adverse to the interest of science than of humanity, to consider any disease as absolutely incurable. Our art is doubtless bounded by certain limits, but let not these limits be still further circumscribed by our own supineness and prejudices. It has often happened, that valuable remedies have been laid aside or neglected, in consequence of some mismanagement in their use, or perhaps, from an excessive zeal in the recommendation of them by their authors, so that not being found capable of producing the promised effects, they have experienced the unmerited fate of being rejected as useless.

"Some of the medicines which I have recommended for inhalation are agents of much delicacy and power. My conviction of their most perfect safety employed in this manner, has not been shaken by a single untoward instance, but it is right to state, that their administration requires careful attention and management. The composition of an inhaling mixture, and the doses to be used, are to be adapted to the particular case, and changed according to its varying circumstances, in the same manner as we find it necessary and proper to alter and accommodate our treatment with internal medicines.

"In consumption, even in desperate circumstances, I recommend the use of inhalation, as being calculated more than any other treatment to mitigate the most troublesome symptoms, and afford the patient great comfort and relief; also, I am persuaded, that such treatment affords the strongest chance of cure. Before the disease has made much destructive progress, and especially in the very early stage of phthisis, I have the highest opinion of the efficacy of the treatment. But I desire to repeat what I have before said, that internal treatment and general management should be joined with the plan of inhalations. I have occasionally, as shown in some of the cases which I have related, found the pulmonary or bronchial disease in so great a degree local, that I have chiefly or wholly trusted to the use of inhalations, and with success; but these are exceptions to the general rule. In chronic bronchitis, the bene-

fits of inhalation are too well proved by the speedy favorable alteration produced both in the quantity and quality of the expectoration, and by the sensible relief which is experienced by the patient, that no question of the value of the remedy can be entertained. It gives relief to the asthmatic patient, proves often curable in cases of consumption, not become desperate in their nature, and is capable of much useful influence even in those extreme examples of the disease which too probably admit only of alleviation, and seem to bid defiance to the ordinary rules of practice."

In reference to medical inhalation, I may observe, that continued and increased experience causes me to think still more highly of that mode of applying remedies to the many and different diseases of the lungs, and parts appertaining thereto. In some, more especially of the larynx, trachea, and fauces, it will almost uniformly prove curative, by itself, or materially accelerate the effects of other appropriate treatment. In others, and especially consumption, it may truly be said, in the language of Mascagni, that "if an efficient remedy for diseases of the lungs is ever discovered, it will be one that can be applied by inhalation." In consideration of the high opinion entertained by the many authorities cited in proof, may it not be said that sufficient attention has neither been paid to its use, nor the proper articles to be employed in the different stages of that bane of most countries, phthisis.

It is not surprising that this disease should prove rebellious to the plans of treatment hitherto practised, more especially that, so long continued, of still further exhausting or debilitating a system already seized with, or susceptible of, by inheritance, and other causes, a disease known to have a direct tendency to exhaust or prostrate the vital energies.

Fully impressed with the truth of the remarks of the late distinguished Dr. Parrish, of Philadelphia, as to the proper course of viewing and treating consumption, while I endeavor to overcome all symptoms positively demanding medical treatment, local and general, properly so called, I cannot but believe that much greater attention should be paid to the various means calculated to support and invigo-

rate those who may have reason to excite our fears that so dread a disease is about to manifest its insidious premonitory symptoms. Would not the baneful habits of much medication and confinement, or too much care, from the fear of taking cold, or adding to that already contracted, be most wisely and successfully substituted by that which should and will enable the body to resist the first impressions, by means of regular and vigorous exercise in all weathers, the free and constant use of cold bathing in some form, followed by long-continued hard friction, a nutritious diet, and such vegetable and ferruginous tonics as may appear most proper for each case? Would not the ratio of mortality be far different from that now experienced? The subject of consumption is one loudly demanding renewed efforts from our profession; and I cannot help thinking, that if our past and present eminent physicians had devoted as much attention to the plan of curing consumption and other diseases of the lungs, as they have to the detection of all the pathological changes induced (although the latter is highly praiseworthy), much practical benefit would have resulted.

IPECACUANHA.

In large doses, this is a mild though certain emetic, and in small quantity it is an expectorant and diaphoretic. This emetic is particularly adapted to cases where the sole object is to evacuate the stomach.

Ipecacuanha was formerly much used in dysentery, and in many cases there is no doubt of its value. As a nauseant, it is used in asthma, hooping-cough, and the different hemorrhages. Combined with opium and sulphate of potash, we have the famous Dover's Powders,—a truly valuable remedy in a great variety of diseases. As an expectorant, ipecacuanha is used in small doses in all diseases of the respiratory organs, more especially of children. Dose, as an emetic, twenty to thirty grains, in water, and repeated at intervals of twenty minutes until free vomiting is produced. Copious draughts of warm water are to be taken to assist its operation. As a nauseant and expectorant, one or two grains every one or two hours.

IPECACUANHA SYRUP.

This is much used in the catarrhal affections of children, as a mild, efficient expectorant. It is advantageously combined with hive syrup, syrup of squills, and paregoric. Dose, as an expectorant, five, fifteen, or twenty drops, every half hour, one, or two hours. If used as an emetic, the dose should be one or more teaspoonfuls every five or ten minutes until vomiting be produced.

IPECACUANHA WINE.

The preceding remarks upon the syrup will apply equally to this preparation of Ipecacuanha.

IRON.

The various preparations of iron are justly ranked among the most powerful tonics, raising the pulse, promoting the secretions, increasing the coloring matter of the blood, and producing effects of a durable character, requiring frequently a considerable time before they display all their powers. They are particularly useful in diseases marked by debility and relaxation of fibre, attended by a languid circulation. In inflammatory diseases, the preparations of iron are inadmissible, as they produce heat, thirst, headache, difficulty of breathing, and an aggravation of all the symptoms.

IRON, PRECIPITATED CARBONATE.

This is the most used of all the preparations of iron, and will generally succeed in producing its tonic effects, when the case is appropriate for the use of iron in any form. In the various forms of neuralgia, it has acquired a deserved celebrity; and in some cases of tetanus, and hooping-cough, it has been used with benefit. When given as a tonic, the dose is from five to thirty grains, three or four times a day. In cases of neuralgia, it is given in doses of one or more teaspoonfuls, three or four times a day.

ISSUES AND SETONS.

These remedies are of service in chronic diseases where a permanent discharge is desirable. Giving little pain or

uneasiness after the first week or ten days, they in no manner interfere with the regular occupations of life.

The best mode of making an ISSUE is to make an incision with a lancet from half an inch to an inch long, and from one-eighth to one-quarter of an inch in depth, then introduce into the wound two or more peas, which should be retained in their place by strips of adhesive plaster, or a compress and bandage.

As soon as the peas have formed a bed for themselves, they should be renewed every day.

A SETON is made by passing the seton needle, armed with a skein of silk or thread, oiled, through a portion of the skin, by elevating and firmly compressing it between the thumb and fingers, while with the other hand the needle is passed through. The space occupied by the seton should be from two to four inches long. The skein of silk or thread is to be left in, moving it a little from day to day. But having found, by personal experience, many objections to this old method, I changed it for the following, which I can recommend as more cleanly, and less painful. After having introduced the skein of silk with an ordinary seton needle, I allow it to remain until suppuration has freely commenced, when it is withdrawn, and a seton, prepared in the following manner, inserted in its place, and renewed every day. Take a piece of old, soft linen or muslin, four inches long by two broad, roll it with the fingers into the shape of a quill, then partially unroll it, and spread simple ointment on both sides, when it is again to be rolled up tight. A little ointment being smeared over it, it will be found to pass readily, giving it a slight rotatory motion.

Should there be any apprehension of this seton falling out, a piece of thread or tape may be passed around the two ends in the shape of a figure of 8. A piece of muslin or linen, spread with any simple ointment, and tied around the neck, or pinned to the clothes, will prevent their being soiled.

JALAP.

This is an active cathartic, operating briskly, and pro-

ducing copious watery stools. In most cases requiring an active cathartic, jalap is applicable. In dropsical complaints it is particularly useful, and is generally conjoined with cream of tartar. Combined with calomel, it is much used in bilious complaints. From six to ten grains of calomel, and twelve to twenty of jalap, make an efficient purgative. Dose of powdered jalap, from fifteen to thirty grains, and of the extract, from five to ten grains.

JELLIES.

When fresh made, whether from calves' feet, hartshorn shavings, or isinglass, will generally be found of easy digestion. Given in moderate quantities, they will frequently agree better in many diseases of the bowels than farinaceous articles.

KINO.

Very advantageously used in chronic diarrhœa and dysentery. It is frequently combined, in such cases, with the ordinary chalk mixture, and laudanum. The dose of powdered kino is from ten to twenty grains; of the tincture, from twenty to forty drops, four or five times a day.

LAUDANUM.

One of the most valuable preparations of opium. Laudanum, long kept, and occasionally exposed to the air, becomes thick, and given in this state, will produce more powerful effects than when perfectly clear. Death, particularly in infants, has resulted from want of attention to this fact. Dose, from one month to one year, from half a drop to two drops; from one year to two years, 1 to 4 drops; from two years to five years, 5 to 8 drops; from five years to ten years, 8 to 12 drops; from ten years to fifteen years, 10 to 20 drops; for a grown person, 25 to 40 drops.

Half a drop is made by mixing one drop in a teaspoonful of water, and giving one-half.

LAVENDER, SPIRIT OF.

A pleasant medicine, used for uneasiness in the stomach and bowels, nausea, flatulence, and general languor or faint-

ness. Dose, twenty drops to a teaspoonful, on a lump of sugar, or in sugar and water.

LEAD, SUGAR OF.

In small doses this is a powerful astringent and sedative, and in larger ones an irritant poison. One grain night and morning, is at times given advantageously in cases of salivation from mercury of long standing. It is sometimes given successfully in small doses, to check vomiting. In hemorrhages, chronic diarrhœa and dysentery, sugar of lead alone, or combined with opium and ipecacuanha, is used with great advantage. The dose is from half a grain to three grains, according to the violence of the disease. Dissolved in water, it is employed as a lotion, two grains to the ounce in ophthalmia; as an injection in gonorrhœa, gleet, and fluor albus; and, stronger, ten to twenty grains to the ounce, to swellings and hemorrhoidal tumors.

LEAD, GOULARD'S EXTRACT OF.

A valuable sedative and astringent, employed externally, diluted with from sixteen to thirty times as much rain or distilled water, forming ordinary LEAD WATER. It is a useful application to bruises, scalds, inflammations, ophthalmia, and painful wounds. It is applied by soaking linen rags, or a piece of bread enveloped in linen, in it, renewing them as soon as they become dry. A small portion of laudanum, or wine of opium, is frequently added to lead-water with advantage.

LINIMENT, SOAP.

An excellent application for bruises, sprains, chilblains, rheumatic and gouty pains, or whenever a mild liniment is required. It should be rubbed over the part for ten or fifteen minutes, three or four times a day, with the hand, or a piece of flannel.

LINIMENT, VOLATILE.

An excellent stimulating liniment, made by mixing one part of aqua ammonia with two or three of olive or lard oil. This liniment is usefully employed in inflammatory affec-

tions of the throat, in catarrh, and for pains in any part of the body, whether of a rheumatic or other character. Laudanum, tincture of arnica, or cicuta, are added in some cases.

LIQUORICE.

This is one of the best demulcent expectorants, used with benefit in catarrhal and other irritations of the mucous membrane of the air-passages. The root or extract may be employed alone, or combined with other expectorants.

LOGWOOD.

An excellent astringent, used in chronic diarrhœa. It is generally given in decoction, made by boiling one ounce of rasped logwood, and one drachm of cinnamon, in two pints of water down to one pint. The dose is from one teaspoonful to two or three tablespoonfuls three or four times a day. The extract is frequently given in solution, in the dose of ten to twenty grains, three or four times a day.

LUNAR CAUSTIC, NITRATE OF SILVER.

In solution, one to ten or more grains to the ounce of distilled water, it is beneficially applied to ill-conditioned ulcers, to chronic discharges from the ear, and to gonorrhœa as an injection. In a still stronger solution, forty to sixty grains to the ounce, it is usefully applied by means of a sponge fastened to a piece of whalebone, to acute and chronic inflammations of the throat. It is also applied to corns and warts, by moistening the end of a stick of caustic with water, and rubbing it on the parts.

MAGNESIA, CALCINED.

As a mild laxative, this is particularly serviceable where acidity prevails. In bowel complaints of children, with green discharges, it is much employed. Combined with milk of sulphur, it is serviceable in bilious complaints, and with rhubarb it forms a valuable cathartic. Dose, from one-fourth of a teaspoonful to one tablespoonful, mixed with water or milk. In slight affections of the bowels in infants,

evidently depending upon acidity, the following infusion will be found serviceable: one teaspoonful of magnesia, a few small pieces of rhubarb root and mace, infused in two or three tablespoonfuls of boiling water; when cold, give of the water, without stirring the magnesia, one teaspoonful every one or two hours.

MINDERERUS' SPIRIT.

This solution of acetate of ammonia is made by nearly saturating diluted acetic acid with ammonia, by putting a piece of carbonate of ammonia into the acid. As soon as the effervescence slackens, and the taste is very slightly acid, the liquid should be poured off. This preparation should always be made when wanted for use. It shortly loses its valuable properties, which few physicians accustomed to prescribe it are aware of, it being made in too large a quantity, and often on hand weeks or months. It is, when freshly made, a useful, cooling diaphoretic in all fevers, being grateful to the stomach, even when irritable. It is often conjoined with spirits of nitre, and a small portion of tartar emetic, to increase its powers as a febrifuge.

Dose, two to four teaspoonfuls or more every one or two hours.

MOSS, ICELAND.

This is demulcent, tonic, and nutritious, being well adapted for various affections of the lungs, stomach, and bowels. In chronic catarrh, dyspepsia, dysentery, or diarrhœa, it is used with benefit. It is principally used as a decoction, and may be taken freely. It is made by washing a handful of the moss in cold water, and then boiling it in a quart of water down to a pint. By long boiling, the bitter and tonic property is removed, making it simply demulcent, and not so beneficial in many cases.

MOSS, IRISH; CARRAGEEN.

This, like the preceding, is nutritious and demulcent, forming a useful article of diet in many pectoral affections, as well as in dysentery and diarrhœa. It is generally used in the form of decoction, and may be made with water or

milk. In making the decoction or jelly, it is best to soak it previously for ten minutes in cold water, to remove an unpleasant flavor attached to it.

MUSTARD SEED, WHITE.

These are slightly aperient, diuretic, and stimulant, and are useful in some cases of costiveness from indigestion, dropsy, or any torpid condition of the bowels. They act mildly and effectually as a laxative, swallowed whole in the dose of two or three teaspoonfuls two or three times a day.

MUSTARD.

One or two tablespoonfuls of mustard flour mixed in a tumblerful of water, will act promptly as an emetic, and in cases of emergency, may be given with much certainty. An equal quantity of common salt is frequently added to the above, and is supposed to increase its efficacy. In the forming or advanced stages of Asiatic cholera, the benefits resulting from this emetic are at times surprising.

MUSTARD POULTICE.

Mix two or more tablespoonfuls of the strongest flour of mustard with boiling water, to make a paste, which spread upon muslin, flannel, paper, or India-rubber cloth. This poultice should, as a general rule, be kept on the part for as long a time as can be borne, remembering, that in cases of insensibility, it should be looked at occasionally, for, if allowed to remain on too long, a painful and troublesome sore may result. When the poultice has been removed, wipe off what adheres, dip a feather in sweet oil, and apply it freely to the surface, or lay a linen rag, soaked in sweet oil, upon it.

MYRRH, TINCTURE OF.

Used internally, in doses of twenty to forty drops, on a lump of sugar. Two or three teaspoonfuls mixed with sugar and water, form a good mouth-wash in ulcerations and sponginess of the gums, and a gargle in affections of the throat.

NARCOTICS.

These are medicines which diminish the sensibility of the nervous system, thereby relieving pain, and causing or promoting sleep. The use of narcotics is especially indicated in affections of the nervous system, attended with pain or spasm, though there are few diseases in which, at some stage, some one of the articles of this class may not be resorted to advantageously, if judiciously prescribed. This class is distinguished from all others by the special and primary influence exercised on the brain and nervous system. In small doses, they diminish sensibility and irritability; in larger doses sleep is commonly produced; and in still larger doses, heaviness of the head, dimness of sight, muscular weakness, sleep, more or less comatose, violent headache, convulsive motions, and a peculiar state resembling sleep and intoxication, profound coma, the precursor of death. The pupils are dilated, respiration is quick, the pulse variable, at first generally strong and full. Furious delirium, and palsy of the limbs frequently attend. The principal narcotics are opium and its preparations, as Laudanum, Paregoric, and Morphia, Lactucarium, Spider's Web, Hyoscyamus, Cicuta, Stramonium, Digitalis, &c.

NITRE, SWEET SPIRITS OF.

This valuable medicine possesses diaphoretic, diuretic, and antispasmodic properties, and is used with advantage in febrile diseases. It is frequently conjoined with tartar-emetic, saltpetre, squill, or digitalis, for the purpose of increasing its action on the skin and kidneys. In the application of blisters, where strangury is apt to follow, spirits of nitre, largely diluted with flaxseed tea, gum-water, or other mild diluent, is given with advantage. The dose is from thirty to sixty drops, repeated every one or two hours.

OAK BARK.

In chronic diarrhœa, and the latter stages of dysentery, the decoction is used advantageously. It is made by boiling one ounce of the bruised bark in a pint and a half of water, down to a pint. Dose, one or two tablespoonfuls several

times a-day. As an injection in many diseases of females, and as a gargle in chronic inflammation of the throat, a strong decoction often proves of service.

A tan bath is used with advantage in cases of weak and rickety children. It should be used daily, and continued for weeks or months. It is made by boiling two or three handfuls of bruised oak bark in one gallon of water, for half an hour; strain, and add water to make a tepid bath.

OINTMENT, CITRINE.

This is advantageously employed in many cutaneous diseases, and that chronic inflammation occurring at the roots of the eyelashes. It is often necessary to dilute it with one or two parts of lard.

OINTMENT, MERCURIAL.

Frequently employed as a dressing to old ulcers, and some cutaneous eruptions. By some, it has been extolled as an application to erysipelas and chilblains. Spread upon muslin, or linen, and applied to small-pox pustules about the third day, it is said to prevent the pitting.

OINTMENT, RED PRECIPITATE.

Spread on lint, or old linen, this is an excellent application to old indolent ulcers. Mixed with two to four parts of simple cerate, it forms an ointment of great efficacy, in that chronic inflammation of the roots of the eyelashes, attended with the secretion of a tenacious matter. A small portion should be applied to the parts upon going to bed.

OINTMENT, SULPHUR.

This specific for the itch, and excellent application for many chronic cutaneous diseases, is made by mixing two tablespoonfuls of flowers of sulphur with a sufficient quantity of lard to form an ointment. It should be applied every night, until a cure is effected.

ONION SYRUP.

As a mild remedy for coughs, deservedly esteemed.

Take five or six onions, cut into small pieces, pour on them, in a bowl or pitcher, one pint of boiling water, mashing them with a spoon. Let it stand near the fire, or on a few coals two or three hours, strain forcibly through muslin, and add an equal quantity of sugar, dissolving it by a gentle heat. Made in the following manner, it is equally efficacious, and more agreeable :—Cover six or eight onions with hot ashes until they become thoroughly heated, or partially roasted; tear off the outer rind, mash them well, in a bowl, with half a pint of boiling water, and one teaspoonful of vinegar, let it stand an hour or two, strain through a rag, and add sugar to make a syrup. A quick mode of making onion syrup, is to cut into small slices four or five onions, putting a layer of onion and one of sugar alternately,—allow it to stand for two or three hours for the juice to exude, and mix with sugar, when it is ready for use. The dose of onion syrup is two or more teaspoonfuls every half hour or hour.

OPIUM.

Unquestionably the most important of all narcotics. When opium or its preparations cannot be retained on the stomach, they may be given by injection, or applied externally by frictions, combined with olive oil, camphor liniment, or spirits of camphor. When there is intense pain in any part of the body, opium or its preparations may be given in large doses without producing their narcotic effects upon the system; in such cases, they are required to be given at short intervals to render that benefit which they alone can often afford. Dose of opium, from half a grain to one grain, repeated once, or more frequently, depending upon the nature of the disease, and the severity of the symptoms.

OPODELDOC.

This well-known article is much used as a liniment for bruises, sprains, and pains, whether of a rheumatic or other character.

ORANGEADE.

Squeeze the juice of one or more oranges into a pint of water, and add sugar to suit the taste. A refreshing and agreeable drink.

OXALIC ACID.

This is a white substance with a sour taste, dissolving in nine times its weight, of cold, and in its own weight, of boiling water. In small quantities, largely diluted with water, and sweetened, it forms an agreeable cooling drink, which has been substituted for lemonade; for this purpose, a few grains are sufficient. In large doses, oxalic acid is a violent and quick poison, death having occurred at times in fifteen or twenty minutes. It has been at times given through mistake for Epsom salts, but this would not happen, if only recollected that Epsom salts is intensely bitter, and oxalic acid very sour. It is little used as a medicine, though freely in the arts.

PANADA.

Made by putting crackers or slices of bread in a saucepan, and covering them with hot water. Boil for a few minutes, or until the bread becomes pulpy, strain off the excess of water, and beat up the bread or crackers, until of the consistence of gruel. White sugar, and when proper, wine, cinnamon, or nutmeg, may be added. This is an agreeable, light food, for convalescents and children.

PAREGORIC ELIXIR.

This is in general use to allay coughs and the tickling irritation in the throat, whether arising from catarrh or other affections of the air-passages, to relieve nausea and slight pains of the stomach and bowels, to check mild cases of diarrhœa, and to procure sleep in the restlessness of infants; in this last case, it is too frequently and unnecessarily resorted to. As a remedy for coughs and colds, its powers are much increased by combining with it small quantities of syrup of squills, or still better, hive syrup. The dose of paregoric for an infant, is from two to ten drops, and for an adult, one or more teaspoonfuls. One ounce of paregoric contains rather less than two grains of opium; one teaspoonful is equal to one-fourth of a grain of opium. It is about fourteen times weaker than laudanum.

PARSLEY.

The fresh root, the part used, is considered to act on the bowels, but more especially and certainly on the kidneys, for which reason a strong infusion is a well-known family remedy for dropsical affections. The juice of the fresh herb has been used for the cure of intermittents.

PECTORAL DRINK.

Pearl barley, three tablespoonfuls; raisins, stoned, the same quantity; liquorice-root, six or eight pieces; water, two quarts. Boil the barley in the water for thirty minutes, then add the raisins and liquorice-root, and boil ten minutes longer. An excellent drink in coughs and other affections of the lungs.

PENNYROYAL.

A popular remedy in suppression of the catamenia. A strong infusion, made by pouring one pint of boiling water on one ounce of the herb, and drank in doses of a wine-glassful three to five times a day, is the best mode of using it.

PINK ROOT.

A valuable vermifuge; taken in large doses, it is occasionally followed by unpleasant and apparently alarming symptoms, as temporary mental derangement, distortion of the countenance, alternate fits of laughing or crying, the pupils dilated, dimness of sight, and the language incoherent. These symptoms disappear in the course of twelve or twenty-four hours, leaving the patient as well as before. It is generally used in infusion, combined with senna, manna, and other articles. The tea is made by pouring one pint of boiling water upon one ounce of the root. Dose, two or three tablespoonfuls three or four times a day for several days, when a small dose of calomel should be given at bedtime, followed the next morning by a dose of castor oil.

PLASTER, ADHESIVE.

Spread on linen, or muslin, it is much used for retaining the sides, or lips of wounds in contact, and for dressing

ulcers to draw the edges together, and give support to the granulations.

PLASTER, LEAD; DIACHYLON.

As an application to excoriated surfaces and wounds, to protect from the action of the air, this is in constant use. Spread on linen, or muslin.

PLASTER, MERCURIAL.

Spread on sheepskin, it is much used as a discutient, to swellings of the glands, whether dependent upon a syphilitic taint or not. In some persons, its use will occasionally affect the gums.

PLASTER, STRENGTHENING.

A popular and excellent application, to relieve the pains of, and impart strength to the various parts of the body, whether resulting from rheumatism, or other causes.

PLASTER, SPICE.

Take of powdered cloves, allspice, cinnamon, and ginger, of each one tablespoonful, red pepper, two teaspoonfuls. Mix and incorporate with a sufficient quantity of flaxseed meal and hot water or brandy, which spread upon flannel or muslin. In great irritability of the stomach, with constant nausea, whether of a gouty, or other character, this plaster is advantageously applied to the abdomen.

POULTICES, EMOLLIENT.

The great comfort resulting from the application of emollient poultices, warm or cold, to bruises, sores, and swellings, as well as in cases of inflammation of the lungs, stomach, bowels, and bladder, is generally conceded. They are made by mixing with hot water, a decoction of poppy heads, vinegar, or milk and water, a sufficient quantity of any of the following articles: Indian meal, flaxseed meal, the soft part of stale bread, hops, or chamomile flowers. In most cases, an emollient poultice should be applied as warm as can be comfortably borne, and renewed every one

or two hours: to prevent its cooling too rapidly, it is well to lay a few folds of flannel, or a soft towel over it. When much pain exists, two or more teaspoonfuls of laudanum may be poured over the poultice, or the parts may be gently bathed with a mixture of sweet oil and laudanum, warmed in a cup, before applying the poultice.

POULTICE, CHARCOAL.

To a poultice of bread and milk, or flaxseed meal, add two or three tablespoonfuls of finely-powdered charcoal. It should be renewed three or four times a day. This is an excellent application to foul ulcers, removing the fetor, and improving the condition of the sore.

POULTICE, YEAST.

Mix a sufficient quantity of flour, or flaxseed meal, with half a pint of yeast, and expose it to a gentle heat, until it begins to rise, when it may be applied. When yeast cannot be procured, this poultice may be made by thickening flour with a solution of super-carbonate of soda, or saleratus, stirring in subsequently a solution of tartaric acid, or cremor tartar. This poultice is an excellent application to foul and gangrenous ulcers, correcting the fetor. One or two tablespoonfuls of powdered charcoal may occasionally be conjoined with it advantageously.

PRIDE OF CHINA.

The bark of the root is the part used, and yields its virtues to boiling water. It is considered to possess cathartic and emetic properties, though rarely, if ever, used for those purposes. The decoction is considered useful in infantile remittent fevers, resembling those produced by worms.

The pride of China, as a remedy for worms, is used by many with confidence, it being thought equal to pink root. The fresher the root, the more active is its effects. The decoction is made by boiling four ounces with a quart of water down to a pint. The dose for a child is a tablespoonful every two or three hours, till the stomach or bowels are affected.

QUASSIA.

A pure tonic, strengthening the digestive organs, without exciting the circulation. In debility of the stomach, a frequent cause of dyspepsia, it is used with advantage. It is generally given in infusion, made with cold water, one tablespoonful of the rasped to a tumbler of cold water, to be taken at intervals during the day.

QUININE, SULPHATE OF.

This truly valuable medicine is in general use, and while it may be properly called a specific for the cure of intermittent fevers, it is, when properly timed, no less valuable in fevers of a different and more violent character. In the administration of this, as of all other tonics, it is a matter of importance that the digestive organs be attended to, as upon their condition will frequently depend the successful action of the particular remedy. To derive all the benefit which this medicine is capable of producing, it is often requisite to give it in much larger doses than those commonly prescribed.

Dose, from three to ten grains, in sweetened water, or dissolved in water by the addition of a few drops of elixir of vitriol, repeated every one, two, or three hours, according to circumstances.

RENNET.

This is the stomach of a sucking animal, preserved by salting, that of the calf preferred. A small portion, washed, is put into a bowl of fresh milk, which, in a few hours, becomes solid, and is called curd. This is a pleasant article of food in hot weather, proving cooling, and agreeable to convalescents from fever.

RHUBARB.

A valuable medicine, possessing, besides its cathartic properties, a considerable degree of astringency, hence its utility in diarrhœa, and other diseases connected with looseness, and debility of the bowels. In the treatment of indigestion, where purgatives are needed, rhubarb is generally

preferred. Where acidity exists in the stomach or bowels, rhubarb may be usefully conjoined with magnesia, or supercarbonate of soda.

Dose, for a child of two years, 3 to 5 grains; for a child of four years, 5 to 8 grains; for a child of eight years, 8 to 10 grains; for a child of twelve years, 10 to 15 grains; for an adult, 20 to 30 grains.

RHUBARB, SYRUP OF.

A mild cathartic, particularly applicable to infantile diseases, or in all cases where the bowels are deranged. Dose, for children, one or two teaspoonfuls every two or three hours; and for adults, one or two tablespoonfuls, two or three times a day.

RHUBARB, SPICED SYRUP OF.

A mild stomachic laxative, well adapted to many of the bowel affections of children and adults. Dose, one to four teaspoonfuls every two or three hours, until the discharges indicate that the medicine has produced its effect.

RHUBARB, SYRUP OF PARCHED.

Made by carefully parching the root, cut into small pieces, then infusing one ounce in eight ounces of boiling water for twenty-four hours, pouring off the clear liquor, and adding an equal quantity of loaf sugar. In diarrhœa, or looseness of the bowels, particularly of infants, it is useful in doses of one or two teaspoonfuls two or three times a day. By parching, or roasting, rhubarb loses much of its laxative powers, while its astringency is increased.

RHUBARB TINCTURE.

This is not much used as a purgative by itself, but in diarrhœa, caused by indigestible food and attended by pain, two or three teaspoonfuls, with a little paregoric, will be found serviceable.

RHUBARB TEA.

This mild remedy will be found of great use in slight bowel affections of infants. It is made by pouring three

or four tablespoonfuls of boiling water on a small piece of rhubarb root cut up, and a little mace. Let it stand near the fire one or two hours. Dose, one or two teaspoonfuls every two or three hours. The addition of a small quantity of magnesia, or super-carbonate of soda, will frequently add to its efficacy, especially if acidity exists in the stomach.

RUBEFACIENTS, COUNTER-IRRITANTS.

These are substances which, externally applied, possess the power of producing redness, inflammation, and, long continued, a destruction of vitality. They are in general use, and will be found of great service in cases of deep-seated irritation, or inflammation, and many affections of the head, breast, or abdomen, unattended by violent febrile action, when depleting remedies are previously required. They may be applied immediately over the seat of pain, or at some distance from it. When the skin is delicate, and easily acted on, always the case in children, rubefacients will often produce a blister, or troublesome sore; care must, therefore, be observed not to allow them to remain on too long, and also to examine the part occasionally. The principal rubefacients are, Mustard, Cayenne Pepper, Garlic, Oil of Turpentine, Aqua Ammonia, Spirits of Hartshorn, Granville's Lotion, Burgundy Pitch, Tartar Emetic.

SALT, COMMON.

The use of this almost essential of life, and preservative of health, cannot be abstained from without injurious consequences, besides weak digestion. Those children who use it sparingly, or abstain from it almost entirely, are much subject to worms. The forcing criminals to eat bread alone, made without salt, was considered among some nations as the most severe punishment that could be inflicted, the criminals becoming infested with worms.

Salt is tonic and stimulant; in moderate quantity promoting digestion, strengthening the stomach and bowels, and assisting the natural action of the bowels. A saturated watery solution is of use in toothache, and as a local application to scrofulous and other hard swellings.

SALTPETRE, NITRE.

This is given in fever and dropsy, to promote perspiration and urine. Dose, five to ten grains every two or three hours, dissolved in a wineglassful of water.

Dissolved in rose-water, or sage tea, with the addition of honey of roses, honey, or brown sugar, it forms an excellent gargle in inflammatory sore throat.

SALTS, EPSOM.

Much used as a certain and useful purgative. It is especially applicable to febrile cases, and is frequently given in combination with magnesia, tartar emetic, or saltpetre, to quicken its operation, and determine to the skin and kidneys. Dose, from one teaspoonful to two tablespoonfuls, according to the age. The addition of a small portion of common salt is supposed to increase its purgative powers.

Oxalic acid, a strong poison, resembles in appearance Epsom salts; many deaths having occurred from taking it in mistake. Oxalic acid is very sour; Epsom salts is very bitter.

SALTS AND MAGNESIA.

A certain and quick purgative, particularly serviceable in bilious derangements; given a few hours after a dose of calomel or blue pill, a free discharge of bile is produced; half a grain to a grain of tartar emetic is frequently added to it with advantage. Dose for children, one or two teaspoonfuls of salts, and one-half to one teaspoonful of magnesia; and for adults, one or two tablespoonfuls of salts, with two or three teaspoonfuls of magnesia. Salts and magnesia are best taken mixed with a little water.

SALTS, GLAUBER'S.

Now not much used, except for horses, the preceding having taken its place.

SAVIN.

In suppression of the catamenia, depending upon a relaxed state of the system, this is at times given with success. The best mode of using it is in decoction, made by boiling

one ounce in a pint of water down to half a pint; strain and add three or four tablespoonfuls of sugar. Dose, one wineglassful three or four times a day. The oil of savin may also be given in doses of two to eight drops, in mucilage, or sugar and water, three or four times a day.

SENNA.

This is an active and efficient cathartic, calculated for all diseases where a free action on the bowels is required. The only objection to it is a tendency to gripe. The purgative effect of senna is increased by combining it with bitters.

SENNA TEA.

On two tablespoonfuls of senna, a few pieces of liquorice root cut fine, and one teaspoonful of anise or fennel seed, pour a tumblerful and a half of boiling water, and let stand near the fire for one hour. When cold, give a wineglassful to adults, a tablespoonful to children every one or two hours, until it operates. Sugar, manna, molasses, and Epsom salts may be added. Senna tea may be used by itself, or follow calomel or blue mass, to quicken their operation.

SENNA AND PRUNES.

This useful aperient is made by infusing four tablespoonfuls of senna leaves, and two tablespoonfuls of cremor tartar in three tumblerfuls of boiling water for four or five hours; strain, and to the clear liquor add four to six tablespoonfuls of brown sugar, and half a pound of prunes. Simmer over a slow fire, until the prunes have absorbed all the liquor, when they are fit for use; three or four chewed two or three times a day will generally produce two or three evacuations, and in cases of habitual constipation, are used with decided advantage.

SIALAGOGUES.

These are medicines that promote the action of the salivary glands, or produce salivation. The preparations of mercury are the only medicines employed for the express object of producing salivation, and as they should be used for that purpose, only by a physician, it is considered unnecessary to notice them more particularly.

SALIVATION.

An unnatural flow of saliva, indicating the specific influence of mercurial preparations upon the system, it is frequently desirable to restrain or remove, and the following are the best applications for that purpose :—

Chloride of soda, one ounce ; honey of roses, one ounce ; syrup of morphia, half an ounce ; rose-water, six ounces.

Chloride of lime, one or two teaspoonfuls, mixed as the chloride of soda gargle.

Lead water is a very effectual gargle ; it turns the teeth black, which, however soon wears off.

One teaspoonful of oil of turpentine, rubbed up with four ounces of mucilage, is strongly recommended as a wash, to be used every hour or two.

A few grains of tannin placed on the tongue, or a solution in brandy and water, will often cure after other remedies have failed.

Iodine, and iodide of potash, internally given, are useful in obstinate cases of salivation. ℞.—Iodine, gr. x ; Iod. potass. ʒii, rubbed down with a small quantity of water, then add one ounce of spiced syrup of rhubarb and twelve ounces of the tonic extract of sarsaparilla. Dose, one or two tablespoonfuls two or three times a-day.

One or two teaspoonfuls of alum, borax, or saltpetre, dissolved in a tumblerful of sage tea, with the addition of three or four tablespoonfuls of honey of roses, simple honey, or brown sugar, and two to four teaspoonfuls of tincture of myrrh, form an excellent mouth wash in cases of salivation. The mouth should be well washed with it every half hour or hour.

SNAKE-ROOT, SENEGA.

This valuable remedy is in extensive use throughout the United States. It possesses the power of increasing all the secretions, and displays its greatest powers as an expectorant, emetic, and emmenagogue. Senega snake-root is especially useful in croup, asthma, and chronic catarrh. It is one of the ingredients of that valuable remedy for croup, Coxe's hive syrup. In cases of derangement of the menstrual flow of females, accompanied by pulmonary symptoms

particularly if inclining to consumption, it is a really valuable remedy, and to the late Dr. J. Hartshorne, of Philadelphia, is due the credit of its introduction for that class of diseases. In several cases of that character, I have seen it produce the most happy and surprising results. It is generally used as a strong infusion, with boiling water, allowing it to macerate for twelve hours near a fire. The dose is from one to four teaspoonfuls, four or five times a day.

SNAKE-ROOT, VIRGINIA.

A stimulating tonic, generally used in infusion, alone or combined with Peruvian bark. The infusion is made by pouring one pint of boiling water on an ounce of the root; when cold, a wineglassful may be given three or four times a day. Cloves and other aromatics are frequently conjoined with it.

SODA, SUPER-CARBONATE.

One of the best antacids. Half a teaspoonful dissolved in a wineglassful of water will immediately remove acidity in the stomach. When given to infants, half a teaspoonful may be dissolved in ten or fifteen teaspoonfuls of water, one-half to one teaspoonful given every hour or two.

SPLINTS.

Pasteboard, cut into the proper shape, and saturated with a solution of gum, isinglass, or starch, and dried, makes a good substitute for those of wood, when these are not to be had.

SQUILLS.

As an expectorant, one of the most valuable. The SYRUP, oxymel, and hive syrup, are the preparations most in use. Dose, from ten drops to one teaspoonful, repeated every hour or two. Either of these, conjoined with paregoric, may be used with advantage in catarrh, and other affections of the lungs.

TAPIOCA.

Prepared in the same manner as sago. This constitutes a mild, nutritious, and easily-digested article of diet.

TARTAR EMETIC.

Very certain in its action as an emetic. Dissolve six grains of tartar emetic in eight tablespoonfuls of warm water; give one tablespoonful every ten minutes until vomiting is produced, when large and frequently-repeated draughts of warm water, or chamomile tea, render its operation easier and more effectual. In bilious affections, and whenever a decided impression is required to be made upon the general system, tartar emetic is to be preferred to other emetics, as, independent of its emetic effect, it generally affects the bowels, and causes perspiration. For the purpose of producing perspiration in fevers, two grains may be dissolved in sixteen teaspoonfuls of water, and a half, or one, teaspoonful given every hour. It is often usefully conjoined with a small quantity of Epsom salts and saltpetre, where a slight action on the bowels and kidneys is required :—as follows : Tartar emetic, two grains; saltpetre, twenty to forty grains; Epsom salts, two to four teaspoonfuls; water, four to six tablespoonfuls. Dose, one teaspoonful every hour. In cases of poisoning, where swallowing cannot be performed, and the stomach pump is not at hand, from one to two scruples of tartar emetic, dissolved in a quart or two of water, and given as an injection, will often produce full vomiting.

TOBACCO.

This well-known article exerts so powerful an influence upon the general system, of a depressing character, that it is rarely, if ever, employed as a medicine, unless in cases of poison, or some cases in surgery, where such effects are desired, or where promptness in vomiting is imperiously demanded. When used, it is generally by injection, with an infusion made by putting twenty to forty grains in a pint of boiling water. It is too violent and hazardous a remedy for general use.

TONICS.

These are medicines which invigorate the system, without increasing the heat of the body, or frequency of the pulse, unless taken in large doses. The effects of tonics

employed in a debilitated state of the body are shown by a gradual and permanent increase of force in the circulation, and an invigoration of the digestive organs and general system. As a general rule, tonics are not proper in cases of disease attended by an inflammatory condition of the body, or a determination to or congestion of the brain. In the use of tonics, attention should be paid to the state of the pulse, the respiration, and the digestive organs. In diseases of a chronic character, tonics are, in general, requisite, and well borne; but, should there exist much irritation or obscure inflammation of the mucous membrane of the stomach and bowels, their use must generally, if not always, be preceded by leeching or cupping, blistering, or counter-irritation, accompanied by rigid attention to diet, which should be of a mild, nutritious character. Vegetable tonics are more immediate in their action than those of the mineral kingdom, which last require to be continued for a long time; and in chronic diseases the greatest benefit will result from their use. The principal tonics are Peruvian Bark, Quinine, Virginia Snake-root, Quassia, Gentian, Chamomile, Boneset, Wild Cherry Bark, Columbo, Iron, Arsenic. Cold bathing, suitable to the case under treatment, followed by frequent and forcible frictions, are adjuvants to tonics of no trifling importance, without which frequently will all tonics prove unavailing.

TURPENTINE, OIL OF.

As an external irritant, this is certain and immediate in its action. It may be rubbed on pure, or mixed with tincture of cantharides, spirits of camphor, or hartshorn. In croup it is advantageously applied to the throat, by means of a piece of flannel soaked in it.

As a vermifuge, the oil of turpentine is given successfully for all species of worms. When given for tapeworm, the dose should be large,—from one to three or four tablespoonfuls; and in these doses it is less apt to be absorbed and affect unpleasantly the urinary organs. At the expiration of two or three hours after a large dose, it is usual to give a dose of castor oil. By some it is always given with castor oil. A good mode of using it as a vermifuge is to give

twenty or thirty drops in sugar and water, or mucilage, three or four times a day for several days, when a dose of calomel at night, and one of castor oil the next morning, will generally produce a discharge of worms.

VALERIAN.

As an antispasmodic this is much used. In epilepsy it is used with success, and in hysteria it is no less valuable. The dose of the powder is one or two teaspoonfuls several times a day; of the tincture, two or three teaspoonfuls; and of the oil, four to six drops, rubbed down with mucilage and sugar. The usual mode of giving it is in infusion, made by pouring one pint of boiling water on an ounce of the bruised root; when cold, the dose is three or four tablespoonfuls four or five times a day.

VERMIFUGES (ANTHELMINTICS).

These are medicines which destroy or remove worms from the intestinal canal. Some articles of this class act as a poison to the worms, others expel them from the bowels, while others increase the tone of the digestive organs, thereby obviating that condition of the stomach and bowels which favors the generation and nourishment of worms. Although the actual discharge of one or more worms is the only positive proof of their existence, there are many symptoms which indicate their presence with some degree of certainty, viz.: a bluish streak under the eyes, which are dull and heavy, the pupils dilated, or much contracted, swelling of the upper lip and lower eyelids, great itching in the nostrils, causing a constant picking of the nose, fetid breath, disturbed sleep, and grinding of the teeth, screaming or starting up suddenly at night, tingling in the ears, giddiness, palpitation of the heart, a dry and spasmodic cough, an irregular and depraved appetite, the abdomen swelled and hard, occasional diarrhœa, slimy and fetid stools, pain in the bowels, wasting of the flesh, loss of strength, and, frequently, convulsions. It is not uncommon to have serious complaints of the brain produced by the presence of worms in children. The principal vermifuges are Pinkroot, Wormseed, Jerusalem Oak, Cowhage, Pride

of China, Male Fern, Aloes, Bitter Tonics, Powdered Tin, Calomel, Iron, Salt.

WARNER'S CORDIAL.

This cordial, and mild purgative, has long been a popular remedy in slight derangements of the alimentary canal, and flatulent colic, especially in those subject to gout. Dose, one to four teaspoonfuls three or four times a day. When used by those predisposed to, and threatened with, an attack of gout, it is best given in warm sweetened water, and in large doses.

WATER.

This is the most natural, and, unquestionably, the most healthy, of all drinks, and, in fevers, is frequently the only one desired, or that will be taken. In fevers attended with an increased temperature of the body, a dry skin, and parched mouth, the free use of water, iced or not, as may be wished, may be permitted, and will prove beneficial.

Dr. A. T. Thomson remarks: "As simple water contains nothing in itself noxious, the attention of the physician is required to be directed only to quantity and temperature. And with regard to both these circumstances, the measure of both may, in truth, be left to the desires of the patient."

In those cases, however, where irritability of the stomach exists, in which a large amount of fluid might prove injurious, it is proper to give the cold water in small quantity, at regular intervals; or, in place of it, small pieces of ice may be held in the mouth, and allowed gradually to dissolve, or pieces of ice may be swallowed.

The excessive use of water may, in some cases, impair the power of the stomach, and interrupt the process of digestion,—a fact to be borne in mind by those having a weak stomach, or subject to dyspepsia or indigestion.

Water taken hot into the stomach excites that organ to increased activity, and adds not a little to the effect produced by tea and coffee, with which it is universally used.

"If," says Hoffman, a celebrated German physician, "there is in nature a remedy which deserves the name of universal, it is, in my opinion, *pure water*. The use of it

is so general, and so necessary to us all, that we can neither live, nor preserve our bodies sound and healthy, without it."

WATER, APPLE.

Roast two or three apples, cut them into small pieces, and pour one or two pints of boiling water upon them. When cold, this makes a pleasant drink in febrile complaints. Sugar and lemon-peel may be added to suit the taste.

WATER, BARLEY.

Pearl barley, three or four tablespoonfuls, boil in a pint of water for two or three minutes, drain off this water, and pour on the barley thus prepared three quarts of boiling water. Continue the boiling in a clean earthen vessel over a small fire until reduced one-half, when it is fit for use. Sugar and lemon-juice, or tartaric acid, to be added to suit the taste. Properly made, barley-water is an agreeable and nutritious drink, used advantageously in all diseases, more particularly those of the chest, stomach, bowels, and urinary organs.

WATER, COMPOUND BARLEY.

Six or eight figs, two or three tablespoonfuls of raisins cut up, a few pieces of liquorice-root sliced, one quart of barley-water, prepared as above, and one pint of water. Boil slowly for thirty or forty minutes, or to one quart, and strain. This is a pleasant demulcent expectorant drink, slightly aperient, and especially applicable to diseases of the respiratory organs.

WATER, CHICKEN.

Half a chicken, the fat removed and bones broken, water two quarts. Boil for twenty or thirty minutes, and add a little salt. When a very nourishing article is required, add a tablespoonful of rice, and boil very slowly for two hours, skimming off the fat.

WATER, LIME.

This possesses antacid, tonic, and astringent properties, and is usefully employed in dyspepsia, with acidity of

stomach, and diarrhœa. Mixed with an equal quantity of milk, which covers its disagreeable taste, it is one of the best remedies for nausea and vomiting depending on irritability of the stomach. In dyspepsia, accompanied with vomiting of food, a diet of lime-water and milk exclusively is the most effectual remedy. Lime-water is of service as a wash in many diseases of the skin; and in burns, a mixture of lime-water and linseed or olive oil has long been celebrated.

Dose of lime-water, one to two tablespoonfuls, repeated several times a day.

WATER, RICE.

Made in the same manner as barley water, and used for the same purposes.

WATER, SEA.

Given internally, it produces thirst, nausea, vomiting and purging. Continued for a long time in moderate quantities, it has proved useful in scrofulous affections. The local action of sea-water is more stimulating than that produced by fresh water. In chronic diseases of the joints, it has long been celebrated as a bath and liniment. Reaction follows much sooner after bathing in salt water than in fresh, and on that account it may be used for a longer period without producing exhaustion. It is generally believed that colds, or other inconveniences, are less apt to follow bathing in, or being wet by sea or salt water, than by fresh water.

WATER, SEDATIVE, OF RASPAIL.

This is a useful application in cases of fever, or in nervous headache. A handkerchief, or piece of linen or muslin soaked in it may be applied to the forehead or head, or those parts as well as the limbs may be bathed with it. It is made extemporaneously by dissolving two or three tablespoonfuls of table salt in a pint of water, and adding one or two tablespoonfuls of spirits of camphor, and two teaspoonfuls or more of aqua ammonia, or double that quantity of spirits of hartshorn.

WATER, TAMARIND.

One pint of hot or cold water, poured upon three or four tablespoonfuls of preserved tamarinds, makes a drink, which, taken freely, is slightly laxative, and is grateful and useful in inflammatory or febrile diseases.

WATER, TAR.

This was formerly highly esteemed, and much employed as a wash for chronic diseases of the skin. It was also much used as a drink in chronic catarrh, bronchitis, consumption, and other diseases of the air-passages. There is no doubt that its use is at times beneficial, and there are few cases in which tar-water may not be used with safety, if not always with advantage. Tar-water is made by mixing two or three tablespoonfuls of tar in two quarts of water; stirring it occasionally for one or two hours. One or more pints may be drank during the day, by itself, or mixed with milk. As a wash for old ulcers, tar-water should be used several times a day.

WATER, TOAST.

Toast a slice of stale bread, or a cracker, pour upon it one pint of cold water, covering the vessel for a short time. A drink much used in dyspepsia, and other affections of the stomach, as well as in diseases generally.

WATERMELON SEEDS.

As a demulcent diuretic, a strong infusion of the bruised seeds is found of great service in diseases of the urinary organs. Two tablespoonfuls in a pint of boiling water, to be drank freely.

WHEY.

This agreeable and nutritious drink, may be freely used in febrile or inflammatory diseases. It is made by the addition of a small portion of rennet to fresh milk, which, in a few hours becomes solid, and separates after a short time into the whey and curd.

WHITE VITRIOL, SULPHATE OF ZINC.

A prompt emetic, peculiarly applicable to cases where

poison has been swallowed. Dose, ten to thirty grains, repeated if necessary, and its operation assisted by drinking freely of warm water. As an astringent, two to four grains to an ounce of water, is used with benefit as a collyrium, in chronic ophthalmia; and as an injection, in gonorrhœa. A stronger solution is an excellent local application in fluor albus, the whites of females.

WINE.

As regards the use of wine, it may be safely asserted, that in healthy constitutions, it is altogether unnecessary as a regular drink, experience having shown that the best health can, and does exist without having recourse to it. Independently of the moral effects resulting from its excessive use, there is no fact better established, than that of its predisposing to, and actually producing, diseases of the liver, brain, and kidneys, as well as gout, and the various forms of dropsy. The diseases induced by the use of wine, differ somewhat from those by the more common alcoholic liquors. Delirium tremens, and diseases of the liver, more frequently result from alcoholic liquors, while gout and gravel more generally attend the use of wines. As a remedial agent, to restore the powers of the system, after violent diseases, as well as to maintain life in certain stages of fevers, wine is given with the most decided advantage. In some cases, it is necessary to administer it in large quantities.

WINE, ANTIMONIAL.

This is a solution of tartar emetic in sherry wine, two grains to an ounce. It is much used in small doses every hour, as an expectorant, or to produce sweating, when it is usefully conjoined with spirits of nitre. As an emetic it is much used in the diseases of children, in the dose of half to one teaspoonful every ten or fifteen minutes, till it operates.

WINE WHEY.

This agreeable and useful nutritious drink is made by boiling in a silver or earthen vessel, half a pint of fresh milk, into which, a wineglassful of sherry or Madeira wine

is to be poured. Stir it with a spoon for a few moments, and set it by to separate. Strain, or pour off the clear liquor, and add sugar to suit the taste.

WORMSEED, JERUSALEM OAK.

Every part of the plant possesses active properties; the seed are the most powerful. They may be given bruised, mixed with sugar and water, or syrup. Dose, one-half to one or two teaspoonfuls in the morning, before eating, and at bedtime.

WORMSEED OIL.

This possesses all the virtues of the seed, is more commonly used, and more readily taken. Dose, from two to ten drops, according to the age, two or three times a day, mixed with sugar or mucilage. It should be taken for three or four days, and followed by a purgative.

YELLOW WASH.

Made by adding five to ten grains of corrosive sublimate to eight ounces of lime-water. An excellent application to venereal and other sores.

PART II.

MAXIMS RELATING TO THE FORMATION OF A SOUND CONSTITUTION AND THE PRESERVATION OF HEALTH,

WITH MISCELLANEOUS OBSERVATIONS, TENDING TO THE PUBLIC GOOD, DERIVED FROM VARIOUS SOURCES, ACKNOWLEDGED AUTHORITIES IN MEDICINE, AND COLLATERAL SCIENCES.

Upon the due observance of many of the following remarks will depend the possibility of preserving health, or overcoming disease, whether acute or chronic. In many cases, strict attention to some of these maxims will be found preferable to the injurious habit of frequent dosing with the more violent drugs, and possibly afford the only prospect of restoring a healthy action to the different organs of the body, thereby allowing nature to exert her all-powerful influence, and gradually bring about a condition of health. The following judicious remarks are made by Dr. Wood, in his Practice, i. 185: "It is particularly important that the practitioner should bear in mind the disposition of many, perhaps we might say of most diseases, to terminate favorably after having run a certain course, provided fatal organic injury can in the mean time be prevented. With this conviction ever present to his mind, he will be less disposed to waste his own efforts and the vigor of the patient in vain attempts to effect an immediate cure, and even in cases in which the disease may possibly be arrested in its progress, will often prefer such moderate measures as will insure ultimate recovery in the natural course of things, to the chance

of more speedy success from violent remedies, with the risk of serious mischief."

Again, at page 200, Dr. W. observes, "Remedies should always bear a relation to the disease, and violence in therapeutics is never justifiable when moderation is adequate to the same good end. Another important rule is not to change a plan of treatment which is doing well, in the mere hope of doing better. Let well enough alone, is a maxim, not less applicable to therapeutics, than to the ordinary concerns of life."

In a series of letters from Dr. A. Combe, of Edinburgh, to his brother, Dr. George Combe, I find the following, which will commend itself too strongly to the good sense of all reflecting minds, to require any apology for its appearance in this work.

"The grand object of medicine, is to preserve and restore the healthy action of all the different organs and functions of the human body, so as to insure their efficiency, and fit the individual for the successful discharge of the duties devolving upon him, as a created being, and a member of society. Here, then, the first step to be taken, is obviously to become acquainted with the mechanism of the body, the structure of its constituent organs, the conditions, or laws under which these act, the purposes which they respectively serve in the animal economy, and the relations in which they stand to each other, and to the external agents by which man is surrounded and acted upon, from the moment of conception down to his latest breath. In other words, the first step towards rational principles of cure must consist in a knowledge of the laws of the healthy functions.

"The second ought to be the observation of the manner in which the various disturbing causes act upon the different functions, and the kind, course, duration, and termination of the morbid action which they produce. Having investigated these points, we become qualified to inquire, in the next place, what circumstances will best favor the indications of nature, and remove the obstacles which may have arisen to impede or thwart her efforts. To succeed in these aims, or even to make a rational attempt at succeeding, we must be profoundly impressed, or, I may say,

saturated with the great principle or truth, that all the operations and actions of the living body, whether healthy or morbid, take place according to fixed and discoverable laws, and that God has left nothing to chance. With this grand fact before us, it becomes palpably evident that we can do nothing rational in the way of either prevention or cure, except in so far as we act in accordance with these laws. Many medical men have, however, a very different impression from this. A good physician will always seek to be, and never aim at being more, than Bacon's servant and interpreter of nature. A greater than he created man, and ordained the laws of his being, and no surer road can be found than that traced by the hand of his Creator. Overlooking this truth, and viewing disease as an entity ungoverned by any definite laws, and not destined to run through any definite course, many medical men talk as familiarly of their curing and arresting diseases, as if they had an absolute control over the whole animal functions, and could alter their laws of action at pleasure. To my mind, no clearer proof of presumption and philosophical ignorance can be found than this usurpation of the prerogatives of Deity, and its results are often very unsatisfactory. It is not we to whom it is intrusted, or by whom it is effected. The Creator has perfected all the arrangements for the purpose, and our sole business ought to be to give these arrangements full play. Man, however, is too full of his own importance to view things in this light. He wishes to be master, and to control disease by his own act, and, accordingly, he has in all ages been seeking for the means of arresting disease at its onset."

The only means of avoiding disease, are temperance, pure air, and exercise, which tend to increase and maintain the physical strength of the system. A very striking example, among many others, which could be adduced, is that so frequently alluded to of the Venetian, Cornaro, who died at ninety-eight years of age.

Having lived freely in his youth, he injured his health, which he re-established by strict temperance and well-regulated exercise; while, by exerting his reason and

philosophy, he also conquered his temper, which was naturally impatient and bad. In his eighty-third year he thus describes himself:—

"I now enjoy a vigorous state of body and mind. I mount my horse from the level ground; I climb steep ascents with ease; and have lately wrote a comedy full of innocent mirth and raillery. When I return home, either from private business or from the senate, I have eleven grandchildren, with whose education, amusement, and songs I am greatly delighted; and I frequently sing with them, for my voice is clearer and stronger now than ever it was in my youth. In short, I am in all respects happy, and quite a stranger to the doleful, morose, dying life of lame, deaf, and blind old age, worn out with intemperance."

Sir Astley Cooper's well-known authority, in reference to exemption from colds, used the following language:—

"The methods by which I preserve my own health, are temperance, early rising, and sponging the body daily with cold water, immediately after getting out of bed, a practice which I have adopted for thirty years; and though I go from the hot theatre, in the squares of the hospitals, in the severest winter nights, with merely silk stockings on my legs, yet scarcely ever have a cold."

Old Parr, who lived until the age of 152 years, gave the following advice: "Keep your head cool by temperance, your feet warm by exercise, rise early, and go soon to bed; and if you are inclined to get fat, keep your eyes open, and your mouth shut."

It is wise to check a cold the first week, but much wiser the first four-and-twenty hours.

The more a man follows nature, and is obedient to her laws, the longer he will live; the farther he deviates from them, the shorter will be his existence.

It has been forcibly remarked, in favor of temperance, that the miserly, who eat but sparingly of plain food, and drink nothing but water, in general live long.

He that is too poor to make a feast, and too obscure to

be invited to the rich man's table, has the best chance of longevity.

If health be your object, rise from the table before the appetite is sated.

They are the most healthy, who have nature for their cook, hunger for their caterer, who have no doctor but the sun and fresh air, and no other medicine than temperance and exercise.

Were man to live as he should do, enjoying every good gift, and abusing none, he would, barring accidents, live to extreme old age without disease.

If men gave three times as much attention as they now do to ventilation, ablution, and exercise in the open air, and only one-third as much to eating, furnishing, and late hours, the number of doctors, dentists, and apothecaries, and amount of neuralgia, dyspepsia, gout, fever, and consumption, would be changed in a corresponding ratio. Mankind would rapidly present the aspect, not only of a far healthier and thriftier, but a far more beautiful and more virtuous race.

PRINTING PRESS, PULPITS, AND WOMEN.

These are the three great levers that govern the movements of the world. Without them, the bottom would fall out, society would become chaos again. The press makes people patriotic, the pulpit religious, but *women answereth all things.* There would be no going to church if there were no girls there; neither would there be any going to war, were the soldiers to meet with no applause but from the masculines. Without the sunshine shed by women, the rose-bud of affection would never bloom, nor the flowers of eloquence germinate. In short, she is the steam engine of delight, *and the great motive power of love, valor, and civilization.* Might not the question more properly have been added, What would have become of the sick, but for the kind, hearty, and unremitting attention of women?

FOOD, HEALTHFULNESS OF.

The question is frequently asked, as to the healthfulness of certain articles of nourishment, solid as well as liquid, or whether they will agree, as though all sent for the use of man was not healthful. Did man and woman properly take care of their health, and that of their children, using but not abusing what was given for the good of all, such questions need not be proposed, and sickness would be a rare visitor. The following, from the Journal of Health, edited by Dr. Bell, so naively answers all such questions that, for the benefit of seekers after truth, I extract it. "It is just as impossible," says the author of a History of Health, "for the same shoe to fit all feet, as it is for the same regimen to agree with all stomachs. The comparison has been extended as follows: 'In the first place, then, as we know that a shoe of a certain size and figure will be likely to fit the majority of feet, so we are assured by experience that an aliment, possessing certain general properties, is best adapted to most stomachs. Remarkable deviations from the common standard are met with in both cases; but we should not, on this account, think of a club-footed gentleman giving the law to shoemakers, any more than we would one of the polyphagous tribe, with a stomach that can digest everything from turtle and trout to custard and cucumbers, prescribing rules for regimen. Against the one, St. Crispin would protest to the very last; against the other, Esculapius would raise his rod, and frown with all the terrors of hypochondriasis on his brow.

"Individual differences being admitted in podology and gastrology, that is, in matters pertaining to the feet and stomach, what is the conclusion to be drawn? Why, that every man, and woman too, ought to judge from the experience of their own feelings what is proper in these respects. Now, this is precisely what people will not do. Tell an invalid that a specified article of food is unwholesome, and liable to engender flatulencies, vapors, and queer fantasies, and you are flatly contradicted, with the accompanying assertion, that neighbor such a one eats it every day, and yet he is well and cheerful. What is this but

saying that the shoe which I admire as fitting so well my neighbor's foot will not fit mine! Admirable logic! most uncommon sense!

"Mrs. —— complains of sick headache; she cannot sleep; she is nervous and unhappy. Advise her to give up drinking coffee and green tea, and to take a walk in the open air every day. She will not consent; she has taken these beverages so long, that they cannot be injurious. The proof by analogy would be, that she wore tight shoes for ten years, without her being lamed by corns. But if she acknowledged that after that time she was obliged to procure shoes of a larger size, on account of the increased tenderness of her feet, ought she not, on the same principle of a probably increased delicacy of her organs of digestion, change the articles of eating and drinking, even though her palate may relish what her stomach henceforward disowns. There is a class of persons who know that they use unfitting things, and yet they persevere in their malpractices. They will have their feet pinched, let corns, or gout, or dropsy remonstrate ever so feelingly; so, likewise, the cucumbers which caused them such a grievous yesternight, will be eaten to-morrow, with the full prospect of the return of certain writhings and contortions, similar to those suffered by poor Laocoon, in the embrace of the serpents. Perhaps they act on the same opinion as that of a certain gentleman in olden time, singularly subject to the gout, who, on being urged by his physicians to abandon the use of salad and smoked meats, jocosely replied, that during the restlessness and torments from the disease, it seemed to him necessary to have some object on which to vent his anger; and, hence, by abusing at one time a beef tongue, at another time a piece of bacon, he felt himself greatly relieved.

"Others, again, persisting to take their neighbor's measure for their own, dwell largely on the elegance and comfort of this latter, when, in fact, it is pinching and seriously injuring the very persons whom they cite as example. 'Look,' say they, 'at Mr. ——.' He does not live like an ascetic. He takes his pint of wine at dinner, and his tumbler of brandy and water to qualify the lobster at

supper. What do you think, Doctor, of his robust frame and florid face?' No answer. After the lapse of a few years, perhaps months, from the date of this question, the Doctor is solicited to visit this model of health, whom he finds deprived of the use of one side of his body. Jokes no longer come trippingly on his tongue. It feebly and tremblingly articulates the commonest replies.

"It is then with health as with morals. In both there is a standard by which to regulate our actions. The precise manner of conforming ourselves to each must vary with the disposition and temperament of the individual. But this latitude has its limits, going beyond which we sin against the laws of creation, and are, in consequence, surely punished both in body and mind."

SPECIFIC RULES.

There are two things to be considered in the treatment of diseases, first, that we do the patient good, and secondly, that at least we do him no harm.

A physician should never lose sight of the absolute importance, of paying great attention to the preservation of the restorative power of the system; for, if that be very much diminished, or lost, to very little purpose will all the resources of the healing art be brought into action.

Whenever loss of appetite is perceived, do not endeavor to force the individual to eat, as it may be regarded as an indication of nature, of the commencement of an indisposition which may be cut short or prevented by abstinence, or a dose of mild medicine.

Cleanliness of the person, as well as of the clothing, is important in all diseases, more especially in fevers, where the bed, as also the body linen, should be frequently changed, or at least well aired twice a day. The face and hands should be washed or bathed several times a day, and, in all cases, with a hot and dry skin, great benefit will result from bathing the face, neck, body, and limbs, with cold water, alone, or mixed with vinegar, whiskey, brandy, or cologne; its proving agreeable to the patient, and followed by a sound sleep, or calmness of the whole system, may be regarded as a proof of its propriety.

MENS SANA IN CORPORE SANO.

A healthy mind in a healthy body may be made to imply that in a state of disease, we should not expect a perfectly natural state of temper, and should be careful to pass by unnoticed many remarks made, or faults found by invalids.

Ventilation is always important, and unquestionably the best mode of purifying the air of a sick-room, is by allowing a constant or frequent entrance of fresh air into the chamber, taking care to prevent the patient being exposed to a draught.

The burning of pastilles, sugar, paper, or other articles, only changes the smell without purifying, and the use of chloride of lime, or soda, although good, should not take the place of a constant renewal of fresh air.

The thorough mastication of food has always been regarded of primary importance to preserve, as also to regain health, as it enables a larger quantity of saliva to be supplied to the properly comminuted food, which is then more readily and effectually acted upon by the fluids of the stomach, in which organ the important process of digestion is commenced. In respect to drinks, so essential to the animal economy, it may truly be said, that water is decidedly the best and most natural, although cases will occur where a moderate allowance of malt or other liquors, may not only be allowed, but will prove beneficial.

As regards the temperature of drinks in fevers, and indeed in most diseases, the wishes of the patient may commonly regulate it, but, as a general rule, it should be warm during the existence of rigors, or the cold stage, and cool, or cold during the hot stage, or when the skin is hot and dry.

In inflammatory diseases of the lungs, stomach or intestines, the temperature of the drinks should be warm or tepid, though even in these cases, we should be guided, to a certain extent, by the feelings and wishes of the patient. The holding small pieces of ice in the mouth, is refreshing, and in some cases preferable to cold water, being less likely to be used in excess.

Clothing and exercise should be adapted to the age of

the person, the season of the year, and the natural strength of the constitution.

ANTIPHLOGISTIC REGIMEN.

This phrase, conveying much valuable information in a few words, is so ably explained by Dr. Watson, of London, in his practice, that I use his own language: "It expresses the sum of several distinct provisions for the welfare of the sick, and the conduct of the attendants. The object of this regimen is to place and keep the patient in that state which is most favorable to the natural subsidence of the disease, or the sanative influence of remedies.

"It consists in the avoidance of every stimulus that can be avoided, whether external or internal. A total abstinence from animal food, and strong drink of all kinds. The exclusion of all that may excite or exercise the mind, or produce a strong impression upon the senses, as noise, bright light, great heat, or cold. The temperature should be about sixty-two, and the apartment well ventilated. He should not be allowed to converse, or attend to matters of business, unless his mind happens to be disturbed, and anxious about some point, which a short interview with a friend may effectually settle. All causes of strong emotion, and mental agitation, should be strictly guarded against. Whatever tends to quicken the circulation is to be shunned, and therefore, not only those influences which operate through the nervous system, but also, all needless bodily effort and exertion must be prohibited. The patient must remain in bed, and in a position which facilitates, or at least does not impede, the free return of the blood by the veins from the suffering organ. If the inflammation is seated in or about the head, that part should be elevated by pillows. If one of the lower extremities is affected, even when the disease is not so intense as to require confinement to bed, the limb must be sustained horizontally, or, be even still more raised up. The function of the organ inflamed should also be spared its exercise, whenever, and in as great a degree as that can be done."

Among the most important of the hygienic rules for the preservation of, or the restoration to health, and the forma-

tion of a robust constitution, the following cannot be too strongly insisted upon.

Attention to diet, which should be plain, wholesome, and nutritious, avoiding excess in quantity; abstinence from alcoholic drinks, regular and sufficient exercise of various kinds, carried even to fatigue; early hours for getting up, and going to bed; the free daily use of cold water, justly called one of the most powerful tonics, to all parts of the body, more particularly in the morning, upon first rising, the body at that time having recovered from the fatigues of the preceding day. The bathing to be followed by hard friction, with a coarse towel, flesh-brush, horse-hair gloves, or strap, no other means being so well calculated to maintain in a healthy vigorous condition, the capillary circulation, the functions of the skin, and indirectly of every organ of the body. A due attention to the above, will often remove many obstinate, and apparently incurable chronic diseases, which may have proved too powerful for the combined powers of the Materia Medica.

EXERCISE.

The importance of regular exercise in maintaining a regular and healthy action of all the organs of the body, is universally admitted; it is necessary, therefore, in order to render exercise as a valuable hygienic measure, capable of producing its full effects, that motion be communicated to every part susceptible of it; that the breast, or thorax, be dilated beyond the usual bounds of rest; that all the muscles attain the utmost degree of their extension and contraction, that force, or effort be made, in order to procure the natural development of all parts, gaining increased strength thereby. The effects of such exercise, when not carried to the extent of producing undue fatigue, are to promote the circulation of the fluids throughout the body, to render the digestion of food more easy and perfect, to insure the nutrition of every part of the system, and to enable perspiration and the other excretions to take place with regularity.

Too much stress cannot be laid upon the benefit to be derived, more especially in a preventive, or curative point

of view, from exercise, in that almost incurable disease, consumption, by the efforts of physicians, or power of medicine, given internally, as proved conclusively by past experience, and the records of the bills of mortality in our own day, Daily observation, if honestly used, compels acquiescence in so melancholy a fact. My experience in by no means a small number of cases, has fully satisfied me of the great or inestimable practical value of the following remarks of the late Dr. Parrish, which merit, from their intrinsic value, a republication in every newspaper in our country, and England, rather than the so oft noticed ephemeral cures, or ignes fatui, for the hopeful, yet deluded. "Vigorous exercise, and a free exposure to the air," says Dr. Parrish, "are by far the most efficient remedies in pulmonary consumption. It is not, however, that kind of exercise usually prescribed for invalids; an occasional walk or ride in pleasant weather, with strict confinement in the intervals, from which much good is to be expected. Daily and long-continued riding on horseback, or in a carriage over rough roads, is perhaps the best mode of exercise; but where this cannot be commanded, unremitting exertion of almost any kind, in the open air, amounting even to labor, will be found highly beneficial; nor should the weather be scrupulously studied. Though I would not advise a consumptive patient to expose himself recklessly to the severest inclemencies of the weather, I would nevertheless warn him against allowing the dread of taking cold to confine him on every occasion, when the sky may be overcast, or the temperature low. I may be told that the patient is often too feeble to be able to bear exertion, but *except in the last stage*, where *every remedy must prove unavailing*, I believe there are few who cannot use exercise without doors, and it sometimes happens that they who are exceedingly debilitated, find, upon making the trial, that their strength is increased by the effort, and that the more they exert themselves, the better able are they to support the exertion."

It may most surely be asserted, that if ever that fatal disease, consumption, is to be cured, or rendered less prevalent in all parts of the globe, it will be found to result from the general dissemination of the above truthful, and

seriously important remarks of the late esteemed Dr. Parrish. Not that I mean to assert that medicine is of no avail, under any circumstances, but freely acknowledge that while some of the more important symptoms can be alleviated by proper remedies judiciously employed, yet that they must yield to a proper attention to hygienic measures, which will overcome an hereditary predisposition to such an all-pervading and depressing an influence, undermining the natural healthy condition of the organs, finally and principally to be acted on. Let iron, cod-liver oil, good plain food, inhalation, and abundant laborious exercise, cold bathing, and friction, usurp the place of uncalled for medication, and the day will arrive, when the most common opprobrium of the healing art will yield to a more rational plan of treatment, than that which for centuries has been proverbially unsuccessful.

As a striking instance of the power of exercise, to overcome the injurious effects of too intense study, aided by an injudicious scale of diet, that of the late eminent Professor Dwight, of Yale College, may properly be cited. Originally possessing a sound constitution, his health had entirely given way, and he was thought to be upon the verge of the grave, when he was ordered by an eminent physician, a daily course of vigorous bodily exercise, as the only means of restoring his constitution to its pristine vigor. He followed the advice, and within one twelvemonth, walked upwards of two thousand miles, and rode on horseback upwards of three thousand. To his perseverance in this system, he was probably indebted for his recovery as well as for the uninterrupted health and vigor of constitution which he enjoyed for the ensuing forty years of his life.

Wellington, contrary to general belief, was born a sickly child, like Turenne. He was weakly when young, and passed two years at Angers, principally on a sofa, playing with a pet dog. He remembered his previous career with no pleasure, and seldom referred to it. His real life began in India, where his body, ripened by the genial sun and the exercise of command, called forth every dormant capability of the general and the statesman. The flesh-brush

and ice-water, long his sole beverage, are said to have been the main instruments for preserving health afterwards.

As one mode of exercise, of no trifling value, and which can be resorted to when the more vigorous are inadmissible, that of friction deserves notice. From Graham's Domestic Medicine, I extract the following, the truth of which I have tested and proved for many years, and it is hoped the dissemination of facts, in regard to the value and influence of all modes of exercise, will result in good :—

"When more active exercise can be taken, friction augments its good effects, and may be used locally, so as to act on particular parts, and when active exercise cannot be resorted to, friction will be found the best substitute for it, and that which often most effectually paves the way for it. It has great power in strengthening the digestive organs, promoting a free perspiration, resolving obstructions, and imparting a comfortable glow, with an increase of energy, to the whole system. Thus it is of uniformly remarkable service to the gouty and rheumatic, to the paralytic, the weakly and the nervous, in short, to all persons affected with a chronic disease, or suffering under a state of general debility. I have known it of great service in promoting health, especially in persons enfeebled by literary labors, or close confinement to the house, from any cause. If sleep forsakes the invalid, he should rise from bed, and use friction actively over the body, fifteen or twenty minutes or more."

Friction may be applied by the hand, or with flannel, horsehair gloves, or straps, coarse towelling, or a hard flesh-brush, which last should be always used, even after the others.

In diseases of children, it is impossible to conceive of the immense advantages resulting from cold, cool, or tepid bathing in salt water, followed by gentle friction over the body and limbs. Such a course enables their diseases to be the more easily, surely and safely brought to a successful issue, than the prevailing habit of reposing too great confidence in medicine, almost to the exclusion of the *vis medicatrix naturæ*.

In conclusion, I hazard the undeniable proposition, that

if bathing and friction could be made to usurp the fashionable rage for medicines, as well for adults as for those of tender years, the number of cures would be far greater, and not have given origin to the opinion expressed by one of the best of England's physicians, Sir James Johnson, who said, "I declare my conscientious opinion, founded on long experience and reflection, that if there was not a single physician, surgeon, apothecary, man-midwife, chemist, druggist, nor drug on the face of the earth, there would be less sickness, and less mortality than now prevail."

I do not fully coincide in opinion with these remarks, for I do hold that a close observer of the ways and means pursued by nature to throw off disease, may often materially assist her in her operations.

THE PULSE.

By this, is understood the beating of the artery, caused by the blood forced into it and through it, by the contraction of the heart, the strength and velocity varying in different individuals, even in a state of perfect health. It is weaker in children than in adults, becoming more slow and feeble in old age.

The pulse is said to be *full*, *tense*, and *strong*, when the artery swells boldly under the fingers, offering more or less resistance to pressure.

The *frequent pulse*, is when the artery beats rapidly in a given space of time.

The *quick pulse*, is when each stroke of the artery is made in a short space of time.

The *soft* and *weak pulse* explain themselves.

An *intermittent pulse* is, when the artery beats a certain number of times regularly, then stops a short time, and again resumes its regular action.

DIRECTIONS FOR BLEEDING.

With a strip of muslin or ribbon, one and a half, to two inches broad, and four or five feet long, tie up the arm two inches above the elbow, being careful not to draw it so tight as to prevent the pulse being felt at the wrist.

The safest vein to open, is that on the outer side of the arm.

The indications by which we judge of the propriety of bleeding, are derived from the degree of fever, the quality of the pulse, the importance of the organ affected, the intensity of the inflammation, the period or stage of the disease, and the age, sex, and general condition of the patient.

GENERAL DIRECTIONS.

In the commencement, or forming stage of most diseases, the proper evacuation of the alimentary canal, or stomach and bowels, by emetics or purgatives, often by both, may be regarded as the most appropriate and safe mode of commencing the treatment, and combined with quietude of body and mind, and the use of farinaceous food and mucilaginous drinks, such a course will often be found sufficient to effect a speedy cure.

In all cases where we find the pulse quick, hard, full, and strong, the tongue coated, a bitter or unpleasant taste in the mouth, the skin hot and dry, bleeding, a mustard foot-bath, an emetic, followed by purgatives, rest, and drinking freely of lemonade, flaxseed tea, gum-water, or other farinaceous and mucilaginous drinks, become necessary.

Severe local pain in the head, side, abdomen, or other part of the body, frequently demands both general and local bloodletting, mustard poultices, and, after arterial excitement has been removed, the application of a blister.

If the pulse be small, soft, and feeble, the tongue covered with a dark coat, and dry, with general debility, the strength must be supported by a plain nourishing diet, giving occasional doses of some mild laxative to correct the disordered secretions of the digestive organs, and at the same time, to administer quinine, bark, and snake-root tea, or other tonics, with wine, brandy, porter, or ale.

In fevers, with a quick, full, and strong pulse, a dry burning skin, dashing cold water over the whole body, or sponging with vinegar, or cologne, mixed with water, is often productive of benefit, at times causing free perspiration; should chilliness, or shivering result, it should not be repeated.

In cases of determination of blood to the brain or lungs,

in violent spasmodic complaints or acute inflammation of some vital organ, it is at times necessary to continue the abstraction of blood until fainting be produced. In ordinary attacks, it is safer, and equally advantageous, to bleed a second time, rather than abstract too large a quantity at once. In acute inflammatory diseases, bloodletting, which is generally indispensable, can be of slight avail unless used at an early period of the disease, and pushed to the extent of producing a decided impression upon the general system, as weakness of pulse, paleness of countenance, and some sensation of faintness. When the effect of the first bleeding has subsided, if a recurrence of the violent symptoms be observed, it will be neeessary to repeat the bleeding, or accomplish the same end by the application of cups, or leeches.

Keep a sick-room always well ventilated, taking care that the patient be not exposed to a current of air, which may be avoided, by placing a screen before the door or windows.

As a general rule, especially in fevers and affections of the head, it is important to keep the room cool, and rather dark, to avoid the excitement of light, and predispose to perfect quietude of mind and body. In acute diseases, it is better for the patient not to converse much, and this rule should be rigidly enforced in inflammatory affections of the respiratory and circulatory organs.

The evacuations should be removed from the sick-room, and, if required to be seen by the physician, should be preserved in one adjoining.

In fevers of an acute character, mental and corporeal quietude, mucilaginous drinks, and abstinence from solid food, are essential, and will, in many cases, prove sufficient to restore the body to health.

In hot climates, it is necessary not to expose the body when in a state of perspiration, to the night air, without being well clothed, this being universally acknowledged to be a fruitful cause of disease. It is no less important, before going to work in the morning, especially in malarious districts, to fortify the stomach and general system with a cup of hot coffee, a cracker, or piece of bread. The constant and almost general practice of laboring men in the south of

Europe, to eat garlic and bread before going to work, is acknowledged to be a good preventive of sickness.

Dr. Combe remarks, "If exposure of any kind is to be incurred in the morning, whether to the weather, or to the causes of disease, it becomes a matter of much importance that breakfast should be taken previously. It is well known that the system is more susceptible of infection, and of the influence of cold, miasma, and other morbid causes, in the morning before eating, than at any other time; and hence it has become a point of duty with all naval and military commanders, especially in bad climates, always to give their men breakfast before exposing them to morning dews or other noxious influences. Sir George Ballingall even mentions a regiment quartered in Newcastle, in which typhus fever was very prevalent, and in which, of all the means used to check its progress, nothing proved so successful as an early breakfast of warm coffee. In aguish countries, experience has shown that the proportion of sick among those who are exposed to the open air before getting anything to eat, is infinitely greater than among those who have been fortified by a comfortable breakfast. Where there is any delicacy of constitution, the risk is of course increased."

In acute diseases, the proper nourishment is rice, or barley-water, flaxseed tea, gum or toast-water, followed by oatmeal gruel, arrow-root, sago, or tapioca; and, when the fever and inflammation have been subdued, beef tea, chicken broth, the soft part of oysters, with porter, ale, or wine, may be allowed, according to the condition of the patient.

ABSTINENCE OR FASTING.

As a curative agent, rigid abstinence, which has been said to starve a growing distemper, is a powerful remedy in acute diseases, and in those of a chronic character, it may be resorted to with almost equal advantage. In many affections of the stomach and bowels, often caused by over-indulgence in eating and drinking, nature and reason dictate the propriety of resorting to a greater or less degree of abstinence, as by itself adequate to remove the cause.

Abstinence, to a greater or less extent, cannot be too

strongly recommended as the most certain means of removing the incipient symptoms of disease, or restoring the body to its customary health. Howard, the philanthropist, was accustomed to fast one day in the week; Franklin is said to have done the same; and Napoleon, when not feeling perfectly well, suspended his repasts, and took exercise on horseback.

In cases of plethora, or fulness, where the object is to reduce the mass of solids, abstinence may properly be regarded as a measure of great importance. In diseases of the head and heart, its utility is frequently strongly exemplified. In those cases of excessive abstinence or starvation occasionally met with, the greatest caution is requisite in giving food, which should be warm, of a liquid character, as soup, in small quantity at a time, not neglecting to keep the body warmly covered, and occasionally rubbing the body and limbs with warm flannel.

VACCINATION.

A firm believer in the protective power of the discovery of Jenner, disposed to place many of the so said failures of this great blessing to the careless manner of performing the trivial operation, and watching its progress through the different stages, I extract the following as the true exponent of my views.

"We, in the city of Philadelphia, have most cogent and convincing proofs to the contrary of the opinion held by some, that the preventive quality of vaccination wears out in seven or eight years. We should say, in the language of the professional men, who gave a history of the small-pox epidemic in this city during 1823 and 1824, that the protecting power of the vaccine virus on persons who have been duly subjected to its influence, is not diminished or destroyed by the length of time from its first introduction into the bodies of such persons; and that no proportion whatever exists between its efficacy and the recency or remoteness of the epoch when the constitution was placed under the influence of the virus.

"They who speak so lightly of the protecting power of vaccination at this time, affect to believe that the matter of

cowpock is not as efficient as it was on its first introduction. They forget, or are ignorant of the fact, that in the very first years of the new practice, in the hands of Drs. Jenner and Pearson, there were instances of persons who had been duly vaccinated, becoming subsequently affected with small-pox. But mark the difference between the hypotheses of those gentlemen and the unbelievers at the present day. The former thought that the occurrence of small-pox was owing to the shortness of the time that had elapsed after vaccination; the latter, that it is on account of the length of time that has transpired since the operation. Can both opinions be correct, or are not both wrong? The attack of small-pox after proper vaccination, is to be explained by the peculiar constitution of the individual, and the particular state of the season or atmosphere, by which a greater proneness than usual to the disease is induced.

"After all, when we reflect on the small proportion of the vaccinated who, under all exposures, have suffered from an attack of small-pox; and then on the shortness of this attack, its little danger, and the very, very small mortality from it, we have every reason for still regarding vaccination as one of the greatest blessings to mankind. Out of sixty-four persons who had been vaccinated, and who afterwards had the small-pox in this city, in those years, there was but one death, and that under circumstances that would have made this event probable without the coming on of small-pox. At this same period, there were some died, both of those who had been inoculated for the small-pox in earlier life, and who had had it naturally. Of one hundred and thirty-five who had never been vaccinated nor inoculated, there were eighty-five deaths. What arguments more conclusive could be adduced?"

PART III.

THE PRACTICE OF MEDICINE, THE ARRANGEMENT OF THE DISEASES BEING ALPHABETICAL.

ABSCESS.

By an abscess is understood a circumscribed cavity containing pus or matter, having been preceded by an induration or inflammation of the part.

The pain, always present, is acute and throbbing, generally increasing in severity until matter has formed, after which it diminishes, the swelling or tumor becoming softer to the touch, and more elevated.

Treatment.—It is frequently possible to arrest the progress of a tumor, and prevent the formation of an abscess, by the application of leeches, strong ammonia, sulphuric ether, or lead-water, enjoining rest, and using saline purgatives.

As soon as it becomes evident that the formation of matter cannot be prevented, it should be encouraged, and hastened by warm poultices, frequently renewed, of bread and milk, flaxseed meal, ground elm-bark, or several thicknesses of flannel or muslin soaked in warm water.

When the swelling becomes soft, with a whitish appearance on the surface, it is generally necessary to open it with a lancet. A free incision should be made with a lancet, in the most prominent part, to allow the escape of the pus. On the neck, or limbs, the incision is to be made lengthwise, to prevent the formation of an unsightly scar. When an abscess occurs in the arm-pits, or near the anus, it is necessary to open it as soon as any signs of pus exist.

Abscesses between the pericranium and bone, whether syphilitic or mercurial, Sir A. Cooper says, should never be opened without there is a decided blush on the skin, for the free use of sarsaparilla, with active purging, will remove them. In deep-seated abscesses, the importance of making an incision over the part, to facilitate the external pointing and opening, has been frequently practically proved.

When an abscess forms in the tonsils, as a result of inflammation, it is often necessary to puncture it, to relieve the urgent symptoms of difficulty of breathing, or suffocation.

APHTHÆ, THRUSH.

This is generally a mild disease of infancy, caused by acidity, or other derangement of the stomach. When appearing at a later period of life, it is to be regarded as a sequence of diseases of the bowels, or constitutional irritation, indicating a reduced state of the system, and an impoverished condition of the blood. The first crop falling off, and succeeded by others of a brown or black color, is an unfavorable sign. Aphthæ is a collection of white specks appearing on the tongue and palate, gradually extending over the inside of the mouth.

Treatment.—In ordinary cases, small quantities of calcined magnesia, or supercarbonate of soda, in water or a mucilaginous drink, three or four times a day, putting in the mouth, every hour or two, a pinch of equal parts of borax and white sugar, made into a fine powder, with one or more small doses of castor or sweet oil, will generally be found sufficient. Where the bowels are affected, the discharges being frequent, loose, offensive, and of an unnatural color, a minute portion of calomel, one grain; powdered gum Arabic, ten grains, well mixed, and divided into eight or ten powders; one to be given two or three times a day; or one or two grains of mercury with chalk, followed by a small dose of sweet oil, or rhubarb tea, may be used. In many cases I have used with success the following:—Into a small teacupful of rhubarb tea, put a half teaspoonful of calcined magnesia, or supercarbonate of soda, stir it well, and when settled, give of the clear liquid half to one tea-

spoonful, every one or two hours. Mouth washes are beneficial, and for infants they must be applied by soaking a piece of fine linen in them, and passing it with the finger over the tongue, and back part of the mouth. The following mouth-washes, or gargles, are of service. Equal parts of honey of borax, and syrup of poppies, or one drachm of powdered borax, in two or three tablespoonfuls of honey of roses, and rose-water. Should the aphthæ assume a dark, or sloughing appearance, an infusion of bark, acidulated with sulphuric or muriatic acid, or the sulphate of quinine, with small quantities of port wine, brandy, and a nourishing diet, are necessary, and in these cases, the following mouth-wash should be used frequently: chloride of soda, three drachms; tincture of myrrh, three drachms; syrup of gum Arabic, two ounces; rose-water, two ounces.

APOPLEXY.

This disease is characterized by a sudden and more or less complete loss of sensation, voluntary motion, and consciousness, proceeding from pressure on the brain, originating within the cranium. The attack is frequently sudden, without warning, the person falling down insensible; at other times it is preceded by general uneasiness, a dull pain in the head, deranged appetite, bad taste in the mouth, and a furred tongue. The pain in the head, and giddiness increase, vision is often impaired, drowsiness occurs; there is a fulness and throbbing in the brain, and he falls down. The face becomes livid or flushed, the eyes suffused, the pupils generally dilated, insensible to light, the breathing laborious and stertorous, and the pulse generally full and hard.

Apoplexy may be confounded with, or mistaken for syncope or fainting, from which it is important to distinguish it.

In syncope, or fainting, respiration is suspended, the pulse cannot be felt at the wrist, the features are shrunk, and the surface of the body becomes pale or cold, while in apoplexy the reverse is found to exist.

In apoplexy, it is generally difficult, often impossible, to arouse the person by the most powerful external irritants,

which will readily enable it to be distinguished from profound sleep.

Treatment.—As a general rule, bleeding to a large amount, or until a decided impression has been made upon the symptoms, is demanded, and should be followed by leeches to the temples, or cups to the back of the neck, and frequently repeated injections, to produce a prompt and powerful action upon the bowels. The head should be elevated, cold applications, as iced water or ice, kept constantly to it—the feet should be placed in a hot mustard foot-bath, and mustard poultices applied to the calves of the legs. The neck, breast, abdomen, and limbs, must be freed from ligatures, or tight clothes. As soon as the patient can swallow, active purgatives must be given, as salts and magnesia, or a few drops of croton oil, mixed with mucilage, sweet or castor oil, which, being small in quantity, can often be given, when a sufficient quantity of other articles could not be swallowed. At times, the symptoms of apoplexy occur soon after a hearty meal; in such cases, if vomiting can be effectually produced by the exhibition of the first emetic that comes to hand, their further development will often be prevented.

The symptoms having been removed by appropriate treatment, care should be taken to keep the bowels loose, the head cool, and to observe the greatest attention to diet, both as regards quantity and quality.

A predisposition to apoplexy is considered to exist in those having a large head, short neck, and corpulency, more especially if accompanied by luxurious living, an excess in eating or drinking, prolonged study, and intense occupation of the mind.

ASTHMA.

This disease is generally regarded as nervous or spasmodic, presenting the following symptoms: difficulty of breathing, accompanied by a wheezing sound, and a sensation of constriction in the chest, an inability to expand the lungs, at times cough and mucous expectoration, rarely any fever. Loss of appetite, flatulence, languor, oppression, and chilliness often precede an attack, which generally occurs about

midnight. During an attack, the countenance is distressed and haggard, the face pale, the extremities cold, the patient is clamorous for fresh air, keeping his head out of the window, in the coldest weather, without suffering from the cold. The pulse is small, weak, often irregular, and palpitation of the heart is not unfrequent. In general, those subject to asthma have some warning of its approach, though at times the onset is sudden and unexpected.

In a severe attack the nervous system is powerfully affected, the extremities cold, with a profuse perspiration. The cause of the great distress appears to be a painful constriction of the chest, and an inability to inspire a sufficient volume of air to remove the feeling of suffocation. After several hours of intense suffering, the constriction of the chest begins to subside, the breathing becomes easier and fuller, and the cough is attended by more or less expectoration, affording relief.

The paroxysms of asthma are irregular in their recurrence, which depends upon derangement of digestion, or from taking cold.

Treatment.—In young and robust subjects, if the symptoms are severe, with pain in the head or breast, and a tendency to congestion or stupor, general bleeding from under the arm, or cupping the breast or back of the neck may be required, though, as a general rule in this disease, the amount of benefit from general bleeding does not equal our expectations, and its frequent repetition in those subject to attacks, will often prove injurious. A stimulating foot-bath, and mustard poultices to the calves of the legs, are always proper and serviceable. Opium, and its preparations, alone, or combined with sulphuric ether, Hoffman's anodyne, or tincture of stramonium, afford, frequently, instantaneous relief. Smoking the dried leaves of stramonium in a common pipe, drawing the smoke into the lungs, has long been deservedly esteemed, and will frequently produce prompt and decided effects. The lobelia inflata has been extolled in this disease; the dose of the tincture is from thirty to forty drops, every ten or fifteen minutes, till relief is afforded, or vomiting produced. Pure strong coffee will often arrest or relieve an attack. A teacupful should be taken every

twenty or thirty minutes, and those finding it useful in an attack, should not use it when well, lest its beneficial influence should be diminished. Inhaling the fumes of burning paper saturated with saltpetre, and dried, is often of great service. In cases attended with tenderness of the spine, the application of cups to that part will be demanded, and frequently proves the only means of relief. An emetic of ipecacuanha, followed by an anodyne, will be found serviceable in those cases where the attack has followed a full meal, or any article that may have caused indigestion. Pouring a small quantity of chloroform or pure sulphuric ether upon a handkerchief or sponge, and inhaling it cautiously, will often prove of immediate benefit.

Medical inhalation, as a preventive, palliative, or curative agent, has been used with positive success in many cases, after a long continuance and failure of every other means.

The use of landanum, paregoric, and tincture of assafœtida, with warm water, by inhalation, will often prove successful; the following mixture will, however, be generally found preferable, varying the proportions to suit the particular case. ℞.—Ext. opii ʒi; ext. conii ʒij; ext. stramonii ʒiv; tr. opii camphorata ʒvj; tr. stramonii ʒvj; lac assafœtida, q. s., pro. ℥vi.—M. To the above, I have frequently conjoined advantageously three or four drachms of gum ammoniac.

Having poured five or six tablespoonfuls of water into the inhaler, two or three teaspoonfuls of the above should be added, and inhalation carried on for ten, fifteen, or twenty minutes at a time, four or five times a day, or even more frequently. In those subject to occasional attacks of asthma, I know of no means so well calculated to prevent their recurrence as the regular use of the above mixture in the inhaler (with cold water), endeavoring, at the same time, to strengthen the general system, and through it, the pulmonary and digestive organs, by the daily use of a cold salt-water shower-bath, followed by friction with a flesh-brush, or horse-hair glove or strap, over the whole body, and especially the thoracic and abdominal viscera, regular exercise in the open air, and a plain, nourishing diet.

In cases of asthma attended by derangement of the alimentary canal, the use of purgatives will be necessary, and in all cases, unless contraindicated by positive symptoms, a brisk cathartic may be given advantageously.

Where constipation exists, the following mixture, in the dose of one or two teaspoonfuls every night, will be beneficial. Two tablespoonfuls of milk of sulphur and cream of tartar, and two teaspoonfuls each of supercarbonate of soda, powdered senna, and calcined magnesia.

With those subject to occasional attacks, strict attention to diet is of the utmost importance, disorder of the digestive organs frequently co-existing, or proving a direct cause of an attack.

Hunger and thirst, remarks Floyer, constitute the best cure for asthma. The diet should be nutritious and easy of digestion, avoiding heating or stimulating articles, though in this, as in other diseases, the habits, age, and constitution of each patient must be duly considered.

Excess in eating or drinking abstained from, little or no medicine, and a systematic hygienic treatment of exercise, bathing, regular hours, and inhalation, will prove, in a majority of cases, a sure preventive, and, in case of an attack, enable a cure to be more readily effected.

BATHING.

The habit of regular bathing, whether as a preservative of health, a preventive of disease, or a curative agent, properly so called, in many diseases, from infancy to old age, varying the temperature of the water, and its mode of application, according to the age and present condition of each individual, merits, from the powerful and important effects it is capable of producing, a more serious consideration than is generally given to it. The indiscriminate praise awarded to the use of cold water by the Hydropathists, according to their system of application, for the cure of all diseases, is not, perhaps, entirely to be acceded to, while there can be no doubt, that in many cases such will succeed as an adjunct to other plans, more especially of a hygienic character, and materially aid, if it should not prove perfectly successful, in conducting to a condition of

perfect health, many cases of disease considered incurable, or of doubtful issue.

To Dr. Forbes, and others, am I indebted for many of the following remarks on this most important subject, bathing, or the use of water, generally, if not always cold.

Ablution, the applying water by means of a sponge, or towel, when general, differs only from the shower-bath in being attended by a lesser shock, and consequently a feebler reaction. The daily ablution of the chest with cold water, in conjunction with vinegar and salt, is one of the most effective tonics in a numerous class of diseases, and the easiest and safest remedy of that almost general, and, we fear, increasing disease, a proclivity to catching cold.

As a preventive of the numerous diseases produced by cold, or rather the variations of temperature, the cold bath, in one or other of its forms, excels all other measures. *In the numerous family of catarrhal disorders*, it is *almost the only preventive of any value.* It obviously acts in various ways in *warding off these* diseases. In the first place, as a tonic to the whole system, thereby rendering it less easily affected by deleterious influences from without. In the second place, it strengthens in a peculiar manner, the skin, and the mucous membrane of the air-passages, on which parts the morbific impressions, producing catarrh, are generally made. In the third place, by accustoming the surface to a frequent change of temperature, it renders it less liable to suffer from those which are unavoidable, and which are known to be the common causes of colds.

The same observations apply, in a great measure, to rheumatism, chilblains, and other diseases produced by the same class of causes.

To the whole class of nervous diseases, properly so called, the cold bath is applicable, and more especially the shower bath. In the intervals of asthma, there is no question of the great utility of cold bathing, which acts, as well by preventing taking cold, as by imparting tone to the nervous system, rendering it less susceptible to be acted upon by morbific causes.

In the latter stages of hooping-cough, the cold bath is often highly useful.

In many diseases, where the object is to recuperate an enervated constitution, overcome, or counteract an hereditary taint, or impart energy and vigor to a debilitated youth, it will be found that the addition of common salt to the cold water will prove more beneficial than water alone. In febrile diseases, where the skin is hot and dry, the frequent application of cold water with a sponge, or pouring it over the body, will be found highly serviceable, and often the only successful mode of producing perspiration and breaking the fever.

The stereotyped habit in favor of blanketing, hot drinks, and tightly-closed rooms, to produce perspiration, and overcome the yellow fever in New Orleans, must eventually yield to the equally, or more efficient and decidedly more agreeable one of allowing the patient to be made comfortable, with much or little covering, as may by his feelings be desired; cool, or cold ablutions, fresh air, and refrigerant drinks.

While avoiding all hazardous means to assist nature in throwing off the febrile symptoms, let us endeavor not to aggravate the existing hot and dry skin, parched tongue, and full pulse. I have too keen a remembrance of such unnatural means not to feel for sufferers.

BOILS.

These are hard and painful tumors, occurring in any part of the body, attended with inflammation.

Treatment.—At the commencement of a large boil, the application of a few leeches will frequently discuss it. The local application of spirits of hartshorn, by producing considerable excitement, or of sulphuric ether, by the cold from its evaporation, will at times have the same effect. Cold applications by poultices, or a compress of linen soaked in lead-water, or ice-water, may also be used. A dose of salts and magnesia, repeated for several days, will have a good effect. In those subject to boils, or where there is a successive crop, the daily use of one or more teaspoonfuls of the following mixture may be given advantageously: Calcined magnesia, one tablespoonful; cream of tartar, two tablespoonfuls; flowers of sulphur, three table-

spoonfuls. In these cases, a few drops of the liquor potassæ internally, and applied externally, has been strongly recommended. Should these means fail to prevent its coming to a head, the frequent application of warm poultices, to encourage suppuration, should be resorted to, and when matter has formed, as indicated by fluctuation, easily distinguished by the touch, and by its assuming a whitish color, unless there is evidence of its speedily breaking, it should be opened with a lancet.

In debilitated, or broken-down constitutions, when boils are of frequent occurrence, it is important to attend to the state of the digestive organs, in which cases, an occasional blue pill, five grains with one of ipecac., at bedtime, followed by three or four doses daily, for a few weeks, of the tonic extract of sarsaparilla, will be found of service.

In gum boils, which frequently proceed from a defective tooth, it is at times necessary to extract the tooth, though frequently the application of one or more leeches, or incising the gum, will prove sufficient. Holding in the mouth a warm emollient fluid, with a few drops of laudanum and tincture of myrrh, will prove useful. A fig or prune, heated and applied to a gum-boil, is a popular and useful remedy.

BRAIN, COMPRESSION OF.

This consists in a loss of sense and motion, and may result from external violence, or an effusion into the brain. The breathing is slow, noisy, and laborious; the pulse is slow and irregular, or oppressed; the pupils are dilated and fixed, and the patient cannot be aroused.

Treatment.—Bleeding, general and local, is of the utmost importance. Place the feet in a hot mustard bath, apply mustard poultices to the calves of the legs, or soles of the feet, give copious injections to act quickly on the bowels, and, as soon as the patient can swallow, frequent doses of active cathartics, as strong senna tea, with salts, or a drop or two of croton oil, rubbed down with mucilage, or mixed with castor or sweet oil. Cold applications to the head are important. Iced water, gum-water, or flaxseed tea, should alone be allowed.

BRAIN, CONCUSSION OF.

By concussion of the brain is to be understood a violent and sudden shock to that organ, without any apparent wound or mark of injury. It may be caused by a fall or blow on the head, or transmitted by a fall on the feet or nates. The breathing is slow, the pupils of the eyes are contracted, with drowsiness, and insensibility. Vomiting often occurs, and the pulse is generally intermitting, irregular, feeble, often scarcely perceptible.

Treatment.—The common practice of bleeding immediately in these cases, is injudicious, death having frequently resulted from it, by still further depressing the powers of the system, thereby destroying the recuperative efforts of nature. Apply cloths dipped in cold water, or pour cold water over the head, put the feet in a hot mustard bath, apply mustard poultices to the soles of the feet, or calves of the legs. Keep the patient quiet, the head slightly elevated, and if he can swallow, give cold water, in small quantities, occasionally. The stupor having passed by, a dose of salts and magnesia, a copious injection, or both, may be given. Should inflammation of the brain supervene, known by intense pain in the head, flushed face, a hard, and quick pulse, delirium, &c., the treatment for that disease must be immediately enforced.

CATARRH, INFLUENZA.

This is an inflammation, light or severe, of the mucous membrane of the air-passages, coming on with hoarseness, cough, and soreness of the chest. Between the mildest and most severe attack, there occurs every shade of degree. The more prominent symptoms are a fulness or uneasy sensation in the head, redness and swelling of the eyelids, and watering of the eyes, dryness of the throat, hoarseness, cough, often severe and constant, with more or less fever always present. The *influenza* is nothing more than a catarrh, sometimes mild, at others severe in its character, frequently existing as an epidemic. It cannot too frequently be repeated, that a cough, cold, or catarrh, should never be considered too light or trifling to merit attention.

That which in the commencement might have been easily cured, will, by neglect, frequently resist the most active treatment, and may lay the foundation of an incurable chronic disease of the lungs, or arouse into action the latent seeds of pulmonary consumption, which the experience of medical men of all ages and countries has proved to be rarely under the control of the best directed efforts of the healing art.

Treatment.—The most certain remedies are, hive syrup, alone, or combined with an equal quantity of paregoric. A mixture of syrup of squills, sweet spirits of nitre, antimonial wine, and paregoric. Syrup of ipecac., spirits of nitre, and paregoric, given in repeated doses during the day, and doubling the quantity on going to bed. Bathing the feet in hot mustard-water at bedtime, with a dose of either of the above mixtures, will frequently cut short the disease. A common and excellent remedy at the commencement of a cold, is a full dose of laudanum, one grain of opium, or ten to fifteen of Dover's powder, on going to bed, and in an hour to drink a tumblerful of hot lemonade, flaxseed or boneset tea. A large dose of oil with twenty or thirty drops of laudanum, will frequently effect a speedy cure. If much fever, pain in coughing, or drawing a full breath, and a hard pulse, with a dry hard cough exist, bleeding from the arm, or cupping the breast, free purging, low diet, and a free use of the above cough mixtures, with mucilaginous drinks, and confinement to the house, will rarely fail. In protracted cases, a blister to the breast, or rubbing it with tartar emetic ointment, are valuable remedies.

In chronic cases unattended by inflammation, particularly in children, it is of importance to maintain a healthy condition of the stomach and bowels, many cases being recorded where long-continued severe coughs had been caused, or kept up, by the presence of worms, or an unhealthy condition of the bowels, and which, upon their removal, were perfectly cured. Some persons are extremely apt to catch cold from the slightest exposure, thus frequently laying the foundation of severe, often fatal diseases of some portion of the lungs. It is manifestly important

to overcome this predisposition, and the following plan I have found successful. Upon getting up in the morning, the throat, breast, and arms should be sponged, or bathed for a few minutes, with cold salt and water, to which a portion of alcohol or cologne should be added, and the parts immediately afterwards rubbed with a coarse towel. In some cases, after the above, great advantage has resulted from applying the following liniment to the parts, by moistening with it a towel, rubbing with force, and finishing by the use of the flesh-brush, or horse-hair gloves, or strap. Camphor, two ounces; common salt, two tablespoonfuls; mustard, two teaspoonfuls; spirit of hartshorn, two tablespoonfuls, and spirit of wine sufficient to fill a pint bottle. For the same purpose, at the same time strengthening the lungs and increasing the size of the chest, the regular use of the inhaler I have frequently seen with advantage. In the absence of this, it should be generally known that great good will result from the following simple plan, of which any one can satisfy himself. Gradually expand the lungs by drawing in a long breath, allow them to continue so a few moments, then permit the air to escape by a small opening of the lips. I have had made a breathing-tube, to permit camphor, or other substance, to be introduced; inspiration carried on through this tube in the manner above described, I have seen effect many cures of chronic affections of the throat and bronchial tubes. The effect produced by this regular system of exercise is not confined to the lungs, but is felt throughout the system. The following mixture is used with decided advantage in severe chronic cough, attended by bronchial irritation. Cyanuret of potash, ten grains; gum Arabic, one ounce; hive syrup, one ounce; paregoric, or syrup of morphia, one ounce; mucilage made with orange-flower water, four ounces. Dose, one teaspoonful every one or two hours.

The black snake-root has been much praised for its power in overcoming chronic coughs, and is much employed as a strong decoction in doses of a wineglassful three or four times a day.

CHICKEN-POX.

A disease of infancy or childhood. The eruption, as a general rule, preceded by little or no fever, commences on the shoulders, neck, and breast, is almost always found on the scalp, the face generally escaping. The eruption consists of transparent vesicles, surrounded by a slight degree of redness, and is generally abundant though distinct. While the first crop is drying up, new ones are being formed. After the second or third day the vesicles become opaque, the scales are small, dry quickly, and crumble off, instead of being detached in one mass. There is rarely any constitutional disturbance throughout the whole course of this disease, which occurs but once in the same person.

Treatment.—In the majority of cases, little medicine is required; confining the child to the chamber, or house, a few small doses of salts, or of sweet spirit of nitre, and antimonial wine, cooling drinks, and mild farinaceous food, being in general sufficient to remove any febrile symptoms that may occur. If much restlessness exists, the feet may be bathed in warm water at bedtime, or more frequently during the day, as may seem required.

CHILBLAIN, FROSTED FEET.

Inflammation, of a crimson or purple color, commonly attended with swelling, and excessive itching, chiefly affecting the extremities, the nose, and the ears.

Treatment.—The use of local stimulants is principally to be depended upon, especially in cases where the cuticle is not broken. Bathing morning and night the part affected with spirits of turpentine, or an ointment made with equal parts of basilicon, and spirits of turpentine, opodeldoc, spirits of camphor, spirits of hartshorn, equal parts of lead-water and laudanum, or of vinegar and spirits of wine, chloride of soda, or diluted muriatic acid, will generally succeed. The following ointment has been found serviceable: creasote, twenty drops; morphia, eight grains; Goulard's extract, two drachms; lead, one ounce. Apply to the affected part several times a day.

In those predisposed to chilblain, washing the part daily in

claret or port wine will frequently prevent an attack, as will also cold salt and water.

When the skin breaks, and an ulcer is formed, a cold poultice may be applied for a few days, after which the turpentine and basilicon ointment, or equal parts of citrine ointment and simple cerate, will be found of service. When any part of the body is frozen, care must be taken to avoid warm applications, the best being ice, snow, or ice-water, to restore the parts to their natural condition, when, should any applications be needed, any of the above may be used.

CHOLERA MORBUS, VOMITING AND PURGING.

The name of cholera is given to that disease in which the prominent symptoms are simultaneous and repeated vomiting and purging, with painful spasm of the stomach and bowels, and cramp in the muscles of the lower limbs. This disease generally commences suddenly, with nausea, followed by vomiting and purging, the matters ejected being, first, the contents of the stomach and bowels, and then a greater or less quantity of a watery fluid, often containing a large amount of bile, of a green, yellow, or brown color. The thirst is great, the pulse small, weak, and frequent, with griping pains in the stomach and bowels, coldness and lividness of the skin, cold, clammy sweats, with sudden and great prostration of strength. A burning pain at the pit of the stomach is generally complained of, and violent cramps of the abdominal muscles, and those of the inferior extremities, are of common occurrence. The stomach and bowels are frequently more or less inflamed.

The presence of bile in the discharges has been supposed to distinguish common from Asiatic cholera; but this is by no means to be depended upon, violent cases of the first presenting all the symptoms of the much-dreaded Asiatic.

After the symptoms of a severe attack have passed by, the patient is left in a debilitated condition, with soreness of the body and limbs; frequently, however, the reaction is so great that inflammation manifests itself, evinced by tenderness and pain, thirst and fever, requiring, at times, general depletion, though more frequently local, by cups or leeches.

An emetic is clearly indicated in those cases supposed or known to depend upon indigestible food, an overloaded stomach, or vitiated bile, and, indeed, in all cases, an emetic, given as soon as the disease shows itself, will invariably prove beneficial. Should it not be deemed necessary to give an emetic, copious draughts of diluent drinks, as chicken-water, or flaxseed tea, should be taken. The vomiting and purging once subdued, a strong infusion of roasted black pepper is strongly commended by Ainslie, as a grateful internal stimulus and cardiac. Clear, well-prepared, but not too strong, coffee, without milk or sugar, is considered a good drink in cholera. Ainslie remarks, "Of the use and virtues of coffee in cholera I can speak with the greatest certainty. I know nothing so likely to remain on the stomach; and it is a curious fact, that the Roman physicians, in the time of the elder Pliny, ordered coffee from the torrefied lentils for the same complaint. But coffee is not only useful as a safe drink on such occasions: I have known instances where the disease was checked by a liberal use of well-made coffee in the commencement."

The feet should be put in hot mustard-water, mustard poultices applied to the calves of the legs and abdomen, and bottles of hot water, or hot bricks, dipped in vinegar or brandy, and enveloped in flannel, should be kept to the sides, thighs, and other parts of the body, in severe cases. Injections of flaxseed tea, or other mucilaginous articles, with thirty to fifty drops of laudanum, should be given occasionally. A pill of two grains of calomel, and one of opium, may be given every hour for four or five hours; or one grain of opium by itself, every hour, till relief be afforded. In the commencement of the disease, after the stomach has been well cleared out, hot brandy-and-water, with thirty or forty drops of laudanum, will often arrest its progress. From ten to twenty drops of spirits of camphor, on a lump of sugar, or in sugar-and-water, is a popular and valuable remedy. Pills of sugar of lead, two to five grains, and opium one grain, given every hour for three or four hours, have been strongly recommended.

When the pulse sinks, the skin becomes cold, and general exhaustion occurs, the use of hot wine or brandy, with

spices, both internally, and by injection, as well as the carbonate of ammonia, become necessary, and should be repeated frequently in small quantities at a time. On the subsidence of the disease, gruel, arrow-root, tapioca, or simple broths, form a suitable diet; but in cases where the prostration is great, a more generous one, as beef-tea or chicken-soup, with small quantities of wine, or brandy, should be allowed. The patient, when beginning to get about, should be protected by warm clothing from any changes in the atmosphere, and pay particular attention to his diet, avoiding everything of an indigestible nature.

CHOLERA ASIATICA.

The cause of epidemic or Asiatic cholera continues a profound secret; the most intelligible opinion in reference to it being its dependence upon an inscrutable aerial poisonous principle, involving every portion of the body, though primarily and principally expending its morbific influence upon the great nervous system, and indirectly, or secondarily, through its all-powerful agency, upon the circulatory, hepatic, respiratory, and other organs.

The tendency to a depression of the powers of life, manifested, first in the capillaries, then in the larger vessels and heart, with a consequent congestion of an impure blood in the internal organs and tissues, are some of the immediate and prominent effects of the invisible cause. The morbid condition of the blood, the absence of the biliary secretion, the decrease or suppression of urine, no less than the other changes observed, must be regarded as effects produced by functional derangement of one or more important organs, resulting from this poison. The great central nervous system is, unquestionably, perhaps primarily, powerfully acted upon by some inscrutable cause developing all the subsequent symptoms.

Among the predisposing causes of this disease, previous to or during its existence, the following may particularly be noticed: Living in low, damp localities; food, whether in excess, or from its quality, possessing a tendency to occasion a derangement of the digestive organs; the use of intoxicating drinks; great anxiety of mind, or fear; expo-

sure to the rays of the sun; undue fatigue; raw, damp, rainy weather; sudden changes from warmth to cold, no less than inattention to cleanliness and proper clothing.

During the prevalence of this epidemic, it is important to remember that one of the primary effects of the general cause is an enfeebling of the power of the digestive organs, and, as a consequence, many ordinary articles of diet cannot be readily digested; therefore, slight errors of diet can and do produce a depression of the healthy powers of the stomach, rendering the system more accessible to external impressions.

That this disease is not contagious is established by the most positive proof.

The possibility of preventing an attack of this disease is of sufficient importance to merit a few remarks.

It may be confidently asserted that the only means of accomplishing this desirable object consists—

1. In the strict avoidance of all causes calculated to diminish the energies of the system, as excess in eating or drinking, abandoning articles of food generally admitted to possess the power of producing relaxation of the bowels, and impairing digestion.

2. Observe cleanliness of the body, house, and premises; dress more warmly than usual; avoid sudden changes of, or exposure in, raw, damp, or chilly weather, more especially if in a state of perspiration; and, unless in active exercise, do not remain in damp or wet clothes.

3. As long as every organ of the body performs its functions healthily, avoid resorting to medicine, in the fallacious hope of forcing a continuance of the same. Such a course is always productive of harm.

The only preventives are sobriety, the use of plain nutritious food, avoiding acid fruits and uncooked fruits and vegetables, with attention to personal cleanliness, free ventilation, regular exercise, calmness of mind, and the daily morning and evening use of the sponge or shower-bath, followed by friction of the whole body with a coarse towel or flesh-brush.

It may be laid down as an axiom that all food known to favor a relaxed state of the bowels, or that is not, in general,

easily digested, should be avoided; for, as a consequence of the peculiar condition of the atmosphere, many articles of diet reputed wholesome and digestible may, and frequently do, prove injurious. It is the mark of prudence to observe and act according to these facts.

Certain articles of diet should be scrupulously avoided, as green vegetables raw or cooked, pickles, salted or smoked meats, fresh pork, salted or shell fish, cider, and acid drinks.

Potatoes, well-cooked,—roasted, especially,—are generally easy of digestion; but if baked, or badly boiled, heavy and sodden, there can be no doubt of their dangerous tendency.

Moderation in eating and drinking during the existence of cholera will prevent the possibility of overtaxing the digestive organs, thereby removing one of the most frequent and common causes of an attack of this, as well as of many other diseases.

Although occasional exceptions may occur, it is proper, as a general rule, that the diet be of a more solid character than usual, and consist principally of meat and farinaceous articles, with spices, such being more invigorating, and containing, in smaller bulk, an equal, if not greater, amount of nourishment. The experience of every one must, however, upon so important a point, be brought into requisition, though a strict observance of the above will place all upon the safe side.

The experience afforded upon a large scale, resulting from allowing the garrison of Genoa, near 10,000 men, a better character of food, during the prevalence of cholera in that city, in 1835, proves incontestably the power of preventing the spread of this disease among so large a body of individuals, by habits and customs otherwise predisposed to an attack.

Having been instrumental in effecting a change of diet, a strict avoidance of fruit and vegetables, a change of dress from summer to winter uniform, as well as an exemption from unnecessary parades, which resulted favorably, and having been called upon by a body of superior officers to receive their thanks for the interest and exertions manifested, and the benefits acknowledged to have been received, I have a right to insist upon the positive advantages that

will result to every community by strict attention to diet and other hygienic measures.

Two general well-established facts, in reference to epidemic cholera, have been conclusively proved by the testimony of the majority of the profession in every section of the globe, which cannot be too extensively known or strenuously insisted upon :—

1. When this disease is attacked in its first or forming stage, it is to be regarded of easy management.

2. Should these first symptoms be neglected, under the erroneous though common impression that they are too slight to merit care or attention, the lapse of a few hours may show, as has frequently been the case, that false confidence and delay have been unwisely calculated upon.

Symptoms and Treatment.—The existence of three distinct stages of this disease has been generally acknowledged, though by some there has been made a fourth, that of the consecutive fever, or reaction, subsequent to, but not necessarily following the third stage, or that of collapse.

Symptoms of the First Stage, generally called the Premonitory Symptoms.

It may not be unnecessary to remark, considering the apparent mildness of many of these symptoms, that during the prevalence of epidemic cholera, any departure from the ordinary healthy condition of the body merits attention, though it by no means follows, notwithstanding the assertions and opinions of some physicians, that active medication should be immediately resorted to ; for very frequently I have found repose, with some mild spicy ptisan, as of cloves, ginger, or cinnamon, all-sufficient. The symptoms most usually observed are lassitude, slight uneasiness in the stomach and bowels, a furred tongue, a dull heavy sensation in the head, soreness of the eyeballs, slight spasmodic pains in the muscles of the extremities, nausea, or sickness of the stomach, though not frequent, is present at times. The bowels are more or less frequently moved, the discharges being generally thin or watery, and usually at first of a dark color, often containing bilious matter. In proportion as these increase in frequency, they lose their natural appearance, re-

sembling first dirty water, and gradually running into the whitish or rice-water discharges.

This looseness, when not in excess, may continue one or more days, to be followed by apparent costiveness, when it may again be produced, and unless the cause be removed by appropriate medicine, we may have a sudden appearance of many of the characteristic symptoms of the well-marked disease.

Treatment of the First Stage, or Premonitory Symptoms.

These symptoms, as generally observed, will almost invariably yield to one or more doses of the following, given either separately or several in combination: laudanum, dose, 15 to 30 drops; paregoric, dose 40 to 100 drops; essence of peppermint, dose 15 to 30 drops; spirits of camphor, dose 10 to 20 drops; tincture of red pepper, dose 20 to 40 drops; tincture of ginger, dose 20 to 50 drops. To be taken in water, or sugar and water, every half hour, hour, or two hours, according to the violence of the symptoms.

Should none of the above be at hand, it may be well to know that a wineglassful of port wine, a tablespoonful of brandy in hot water, or half a teaspoonful of powdered ginger, with a few grains of red or black pepper mixed in a small quantity of sugar and water, will answer the same purpose.

Satisfied in all cases, of the tendency to, or actual presence of more or less derangement of the digestive organs, I have preferred and used with uniform success one of the cholera pills, and a few doses of the cholera syrup.

The following spice tea has always proved serviceable, in mild cases sufficient by itself, and in severe ones a valuable adjuvant.

It is made by infusing in half a pint of boiling water, over coals or a spirit lamp, for ten or fifteen minutes, the following articles: one or two tablespoonfuls of the best Jamaica ginger, the same quantity of cinnamon, one or two teaspoonfuls of cloves, bruised or broken into small pieces. Add sugar and brandy, if advisable. One or two teaspoonfuls may be given hot or cold, every ten or fifteen minutes.

Symptoms of the Second Stage, or Confirmed Cholera.

The premonitory symptoms and first stage, having been neglected or uncontrolled by the usual remedies, or as sometimes occurs, there having been little, if any premonition, we have a well-marked case, presenting the following symptoms, varying in intensity and rapidity.

Sickness of stomach, preceded by looseness of the bowels, and followed by vomiting; the quantity ejected from the stomach and bowels is frequently very profuse, and soon followed by excessive exhaustion or weakness.

Purging is more constant than vomiting, and in the majority of cases is the first symptom; it is rarely absent altogether, and when unnoticed, generally indicates a marked degree of malignancy in the attack. Griping and tenesmus are rarely if ever observed, although the calls are frequent and irresistible.

The skin becomes cold, and presents a peculiar livid appearance, faintness supervenes, and there are painful spasmodic contractions of the muscles of the extremities, or the body, or both.

The pulse becomes small, weak, and quick, frequently imperceptible at the wrists. The surface of the body has a collapsed or shrunken appearance, the lips and nails become blue, and the hands and feet shrivelled, as if soaked in water. Almost invariably we have oppression, pain, or a burning sensation in the stomach, accompanied with excessive thirst. The eyes are sunk in their orbits, and surrounded by a dark livid circle: the features collapse, and the countenance quickly assumes that cadaverous appearance so peculiar and marked a characteristic of the disease.

The tongue is generally moist, whitish, and cold to the touch, the breath is also cold.

The purging and vomiting continue to increase in quantity and frequency, until the matter assumes the appearance of rice-water. There is now evidence of a complete cessation of the secretion of bile, and most generally a decrease or total suppression of urine, which last is always to be regarded in an unfavorable light.

This excessive vomiting and purging do not generally

continue very long, being either moderated or overcome by the resources of art, or continued until, from its excess, the system is reduced so low that no more can be supplied, they, as well as the spasms, often disappearing, the patient falling a victim to the disease, or the recuperative power of nature, aided by remedies, bringing about a reaction.

The immense amount of watery discharges, by vomiting and purging, if always present, would afford a rational explanation of the great debility, thirst, thickness of blood, and absence of pulse; but as such is not the case, and some of the most sudden and rapidly fatal cases are seen where neither exists, we are forced to believe in the presence of some poisonous principle extending throughout the atmosphere.

Treatment of the Second Stage, or Confirmed Cholera.

The great tendency to, and rapid approach of extreme prostration, the recession of the blood from the surface to the central organs of the body, the cold livid skin, all indicate, as the great and first object in the treatment, the producing a positive reaction, or determination to the surface, manifested by an increase in the volume, frequency, and force of the pulse, a hot skin, and warm perspiration.

Admitting that this desirable object has been and can be obtained by different modes of proceeding and remedies, I feel convinced that in the majority of cases, under all circumstances, this desideratum will be more speedily, safely, and certainly effected by the use of emetics than by any other class of remedies.

Although not objecting to the various articles of this class which have been used successfully, I am of opinion, that the stimulating emetic which I have so frequently and successfully employed, is most to be depended upon for the accomplishment of the end in view, for the following reasons :—

1st. Properly employed, this emetic will rarely, if ever, fail to produce immediate and powerful straining and vomiting, constituting the essential difference between the vomiting as an effect of the disease, and that produced as a means of cure. In the former the most serious depressing or pros-

trating influence is exerted, tending rapidly to the stage of collapse, while in the latter the very reverse is brought about, with an almost immediate cessation of every bad symptom.

2d. Possessing stimulating properties of a positive character, in addition to the amount of salt used, which may by itself produce some of the good effects ascribed to the saline treatment, this powerful perturbating mixture stimulates every portion of the body, produces a general and permanent reaction, and by equalizing the circulation, prevents the uniform tendency to congestion in the internal organs.

3d. As a consequence of the effects produced by this emetic, it will almost invariably allay or completely arrest the vomiting, purging, cramps, sensation of heat or oppression, quickly producing a marked change in the pulse, which, although previously scarcely perceptible, becomes full and frequent, followed, or rather accompanied by a hot skin and copious warm perspiration. In proportion to the abundance of perspiration, fulness of pulse, and heat of the skin, I have always observed a corresponding permanency of the much-desired reaction, a less tendency to recede, with seldom any symptoms of congestion.

I have frequently, at the bedside, noticed all of the above changes, and still more, that patients who, after having had profuse vomiting and purging for hours, accompanied with violent spasm of the muscles of the body and limbs, cold tongue and breath, the peculiar cholera countenance, were not only immediately relieved of all, but would sink into a sound sleep, which has lasted from one to five hours, and when aroused, would be found to be in a favorable condition, requiring little else than a few doses of cholera syrup and pills to complete the cure.

The following remarks upon the employment of emetics in cholera are made by Dr. Chapman: "More is done by the emetic in occasionally overcoming the spasms, and on its secondary and diffusive operation taking place, a centrifugal direction is given, whereby the irritation of the first passages, as well as the deep-seated congestion, are removed. On the restoration of the just balance in the circulation, and the functions dependent on it, the system, before pros-

trated, now emerges from under the load, and we are presented with a case altogether more open and manageable." The following emetic I prefer :—

The strongest flour of mustard, two tablespoonfuls; common salt, four tablespoonfuls; powdered ipecacuanha, one teaspoonful; powdered Jamaica ginger, two teaspoonfuls; powdered cayenne, one teaspoonful. These, mixed in three or four pints of water, as warm as can be swallowed, and taken by the tumblerful in rapid succession, until a full effect has been produced, will rarely disappoint our expectation. In cases of emergency, where valuable time would be lost in procuring all the above, I have used with much satisfaction, the mustard and salt alone, given in the same manner.

Previous to, or simultaneously with the emetic, I bring into requisition the following: A large mustard plaster to the abdomen or spine, calves of the legs, or soles of the feet, or in its place, or subsequent to it, as may be demanded by the case, a spice plaster applied as hot as can be borne, and the heat retained by applying over it five or six thicknesses of flannel or muslin, wrung out of boiling water, which can be renewed when required.

The spice plaster is made as follows :—

Powdered Jamaica ginger, three tablespoonfuls; powdered cinnamon, an equal quantity; powdered allspice, two tablespoonfuls; powdered cloves, the same quantity; cayenne pepper, two teaspoonfuls; one or two handsful of flaxseed meal, hops, or chamomile flowers.

These being well mixed in a basin with boiling water and brandy, are to be put in a flannel bag, or spread upon muslin, and applied to the stomach.

In cholera, no less than in other diseases, this spice plaster will frequently relieve and remove pain and irritability of the stomach more certainly than mustard, and to a degree by no means to be measured by the degree of irritation produced.

The emetic having produced the desired effect, and the external applications being arranged, I now, except the patient has fallen into a sound sleep, when I prefer waiting and allowing nature to do her part, give either a large dose

of calomel, from twenty to forty grains, with three or four grains of cayenne pepper, and ten of Jamaica ginger, in one or two teaspoonfuls of cholera syrup, or any other stimulating remedy that may be at hand. Instead of the large dose of calomel, I have frequently given one or more of the cholera pills, with equal advantage.

At this stage of the disease, small portions occasionally of the spice tea, hot or cold, as may be preferred, I have found serviceable.

To allay the thirst generally existing, I give small pieces of ice as frequently as may be desired, or iced water, gum-water, or flaxseed tea in small quanties at a time. Nothing proves more generally grateful or successful in allaying the inordinate thirst so constantly complained of, than a Seidlitz or soda powder mixed with ice-water, and taken occasionally while effervescing. For the same purpose, a solution of supercarbonate of soda in ice-water may also be given. Dissolve one teaspoonful in half a tumbler of ice-water, and give one teaspoonful every five or ten minutes.

The characteristic discharges of the disease from the bowels having ceased, if the first dose of calomel or pills have not produced any effect, I now give another of either and wait for the effects.

Should the discharges be of a black offensive character, and not abundant, it may be necessary to give a stimulating injection of senna tea and salts, or a few doses of the following:

℞.—Tinct. Rhei., 1½ ozs.; Syr. Rhei. Arom., 1½ ozs.; Tr. Capsica, 1 dr.; Tr. Zingiber, 2 dr.

Dose, two to four teaspoonfuls, every one, two, or three hours.

In this stage of the disease, should the remedies have produced their anticipated effects, and no particular indication exists, it is highly important to allow your patient to remain perfectly quiet, satisfied to let well enough alone, confining him to small quantities of mild nutritious drinks, as arrow-root, rice gruel, chicken, or mutton broth.

It may be laid down as a general rule, that the vomiting, purging, cramps, and other symptoms having been overcome without the existence of any particular local pain, our safest

course is to watch closely, and by means of mild nourishment, perfect quietude of mind and body, to allow the powers of nature gradually to restore the system to a state of health.

Symptoms of the Third Stage, or that of Collapse, also called the Blue Stage.

The main difference in the symptoms of this stage from those of the second, consists rather in the degree of violence, and almost hopeless condition of the patient. The principal symptoms are a deeper livid or blue color of the skin, lips, and nails, a more general appearance of shrinking of the whole body, with much more of the sodden or soaked conditions of the hands and feet.

The skin is still more insensible to the action of powerful stimulants, the eyes more deeply sunk in the orbits, surrounded with a far deeper livid circle, the countenance assumes still more the corpse-like appearance, so remarkably characteristic of this stage of cholera.

The insatiable thirst and desire for cold drinks continue unabated. The tongue is moist, whitish, and almost as cold as ice to the touch. The voice is unnatural, very weak, or scarcely audible. Respiration is generally slow and oppressed, with a manifest coldness of the breath. The pulse falls rapidly, and soon becomes extinct at the wrist, and scarcely perceptible in the large arteries. The spasmodic contractions of the muscles are often powerful and painful.

The durations of these symptoms varies materially, sometimes terminating fatally in a few hours, at others prolonged, beyond all expectation, to one or two days, when the combined powers of nature and art may succeed in producing a reaction, which, when of a violent character, has been called the fourth stage, or that of reaction or fever.

Treatment of the Third Stage, or that of Collapse.—The first and second stages having passed without timely assistance, or the remedies having proved ineffectual, few recoveries can be anticipated.

The important and principal object in such a case, is to arrest its downward progress, by causing a reaction.

The ordinary means most likely to effect this, are regular and long-continued friction of the body and limbs with flannel and hot salt, mustard and cayenne, finely powdered, a mustard poultice, or flannel steeped in turpentine or aqua ammoniæ, applied to the spine; the dry frictions are, however, most to be relied upon.

In these extreme cases it has been proposed and practised, more immediately to accomplish the end in view, to moisten the spinal column with spirits of wine or sulphuric ether, and then set fire to it. As a very powerful and immediate excitant, this is deserving of more attention than has been given to it. Strong saline enemata, given as warm as prudence will permit, have been strongly recommended.

Of the propriety and usefulness of calomel in these cases, many speak with the greatest confidence. Some give it in large doses, while others prefer it in smaller quantities, repeated more frequently; in either case, it is better to combine it with cayenne and ginger.

For the avowed object of procuring a reaction, the application of dry cups to the abdomen and breast, by their powerful revulsive action, will frequently prove highly beneficial. Of all the remedies noticed, there is not one that will so uniformly or certainly accomplish the reaction, as an emetic of mustard, salt, cayenne, and ginger. Given as warm as it can be swallowed, it will rarely disappoint our expectations; the reaction, with the profuse powerful perspiration ensuing, will, in the words of Dr. Chapman, give us a case altogether more open and manageable.

The apparent hopelessness of the case should not deter us from the use of this emetic. Frequently have I had great difficulty in causing it to be swallowed, never to regret its administration, but more than once that it had not been used. After every other means had been unavailing, I have seen it prove perfectly successful.

Doubtless there are cases in which this remedy could not properly be resorted to; there, however, the judgment of the physician must decide. Should it not be considered advisable to administer the above or any other emetic, our main resource will be dry cupping, and the continuance of

powerful stimulants internally, as the spice tea, with brandy, camphor, carbonate of ammonia, spirits of hartshorn, cayenne, milk punch, and injections of hot salt and water, or other stimulating articles.

The fear of the too great degree of the possible consecutive fever must not prevent the employment, in these desperate cases, of repeated doses of powerful stimulants, for, if we cannot succeed in producing a reaction, death, in all probability, will shortly occur. If the remedies used should succeed in causing reaction—and, however hopeless the case may appear, we must not relax in our efforts—we have the case brought to the second stage, when one or more doses of calomel, quinine, cayenne, and ginger may be given to restore a healthy biliary secretion.

We should continue the application of warm stimulating applications to the abdomen, soles of the feet, and calves of the legs, for the double purpose of maintaining the reaction, and diverting to the surface and extremities, thereby lessening the tendency to a determination to the head.

Small quantities of concentrated animal broths should be occasionally given, together with wine or milk punch, to meet the demands of the case.

Should the reaction prove too violent, causing the consecutive fever, with more or less pain in the head, it will be necessary to apply cups or leeches to the temples or back of the neck, or even to draw blood from the arm, with cold water constantly to the head, having previously thinned or removed the hair.

One or more doses of calomel, followed by Seidlitz powders and injections of salt and water, more especially if the bowels have not been opened, may now be used advantageously.

The desire for cold drinks may be gratified at this time with more freedom. It is all-important in the treatment of this disease, to advert to the tendency to congestion, more especially of the brain, and upon the first appearance of any of the ordinary signs, to refrain as much as possible from the use of stimulants, confining the treatment to mild nutritious drinks, dry or moist cupping to the temples or

back of the neck, shaving the head, and keeping ice-water constantly applied.

The brain remaining unaffected, we must never despair of success; but where it is so, the number of recoveries will be very small.

In reference to the treatment of the consecutive fever in the fourth stage, it is unnecessary to offer additional remarks, so much having already been said appertaining thereto.

During the continuance of this febrile condition, it is necessary to ascertain whether any urine be passed, and if not, to examine the region of the bladder. Passing the catheter is frequently necessary to determine the actual condition of the bladder.

In conclusion, the following general remarks may be introduced:—

A singular fact attends the progress of this disease through its most severe stages, that of the continuance of the functions of the brain almost to the last moments of existence. Although the symptoms of the several stages are most generally observed in their regular order, it is by no means an unusual circumstance to find cases of an extremely sudden and fatal character, wanting in many of the usual and more prominent symptoms.

At times there may be an absence of vomiting, and prevalence of purging; at others, an excess of vomiting, with a very moderate discharge from the bowels, and this last may sometimes be wanting entirely, though of very rare occurrence. The spasms vary considerably, generally very severe, though occasionally scarcely perceptible.

Perhaps the most sudden, severe, and almost certainly fatal cases, are those attended by slight apparent derangement or disturbance of the system, little or no vomiting, purging or spasms; with very little premonition, there comes on a sensation of great coldness and exhaustion, with the peculiar characteristic features and expression to a surprising degree, and in a very short time an almost total arrest of the circulation, the pulse being scarcely perceptible. In these cases, without the most prompt and energetic treatment, death will inevitably result.

From a due consideration of the preceding remarks, the following corollaries appear naturally to follow :—

1st. That during the existence of cholera, an attack is almost uniformly preceded by same uneasy sensations in various parts of the body, more especially slight pains in, and more or less looseness in the bowels.

2d. That for these manifest indications of derangement of a healthy condition, it is always in our power to arrest their further progress, by the timely use of some of the ordinary, yet efficient means above noticed.

3d. That inattention to these apparently slight symptoms is fraught with danger, and that it is safer, easier, and more consistent with reason, to remove the first impressions of disease, rather than procrastinate until the disease shall have assumed an alarming character.

4th. That in consideration of the universally conceded power of hygienic measures to preserve a healthy condition of the different organs of the body, too much attention cannot be paid to all properly appertaining to that head.

5th. That as with few, if indeed any exceptions, an attack of cholera can be traced to some imprudence in the ingesta, and the undue exposure, no less than the unjustifiable inattention to a deviation from the natural healthy condition of the body, it follows that the majority of any population possess within themselves the preventive measures calculated to diminish, if not entirely obviate the probability of an attack, even of the precursory symptoms.

Summary of Treatment.—For mild cases, or upon the first appearance of the premonitory symptoms, give immediately, one of the cholera pills with one teaspoonful of the cholera syrup, repeating the syrup every half hour, hour, or two hours, depending upon the violence of the attack.

In a well-marked case, give one pill with one teaspoonful of the syrup, every half hour, or hour, and apply mustard poultices to the stomach, and calves of the legs; or, to make the cure still more certain, give the mustard and salt emetic previous to the above.

Observing the above rules, in all cases, with the aid of the auxiliaries specified in the body of the remarks, will

very materially diminish the number of victims to the violent and dangerous cholera.

The perfect safety, superior advantages, and general success, proceeding from the principles laid down, which result in the administration of the stimulating and perturbating emetic recommended, are the chief points to which I mainly desire to direct attention, in alluding to a uniform, and systematic course of proceeding in the treatment of cholera.

It may not be amiss to notice an important and interesting successful case, by no means the only one in an equally hopeless condition, which occurred in this city, in the winter of 1851. I allude to that of the Rev. Dr. T., of Georgia, then on a visit to New Orleans. He was attended by his and my friend, Dr. Picton. The case was desperate almost from the commencement; and in spite of all the remedies judiciously applied by Dr. P. the symptoms became so rapidly severe, that great fears were entertained that his rather debilitated frame would have to yield. Being requested by my friend to visit in consultation, I found that there was hardly one favorable symptom, all being of the worst form. After some time, finding no improvement, but rather a manifest sinking, it was agreed, after due deliberation, and as the only possible means, under God, to save his valuable life, to resort to the stimulating emetic. This was done with no little fear, but we were most happy to find that our fears were not realized. Intense powerful straining and vomiting came on, followed in a short time, or almost simultaneously, by a perfect reaction; hot skin, instead of one cold and clammy; full pulse, instead of one scarcely perceptible, and a hot perspiration. The nausea and vomiting almost instantly ceased, and a gentle sleep shortly came to afford still greater relief. As far as the cholera symptoms were concerned, a few hours dispelled all our fears, but subsequent symptoms of a severe character, manifested themselves, totally irrespective of the treatment, again placing his life in danger. In the course of forty-eight hours the presence of Professor Jones was requested in consultation, and after some days of anxiety, we had the satisfaction of pronouncing our patient conva-

lescent. Since then he has enjoyed his usual health, and is actively employed in doing good.

COLIC.

This disease, known by the existence of pain of a griping character in the abdomen, varies from the slightest uneasiness to the most excruciating agony. The ordinary symptoms are, tenderness or pain in the bowels, with more or less tension and sensation of twisting around the navel. The pain of colic usually occurs in frequently recurring paroxysms, with irregular remissions or intermissions; it is relieved by pressure, the patient writhing, or turning in all directions, or frequently lying on the abdomen, and pressing forcibly against the bed, in order to procure relief, and this relief, afforded by pressure, is one of the principal means of distinguishing colic from inflammation of the bowels or peritoneum. Constipation and vomiting, or nausea, are frequently present, the stomach becoming at times so irritable as to reject the most simple drinks, and even by long-continued and powerful vomiting, to bring up feculent matter. When this occurs, the disease is called ileus or iliac passion, and is generally to be regarded as the closing stage of the most violent form of colic, in which case it frequently depends upon some irremovable mechanical obstruction. In colic, the abdomen is at times hard and contracted, giving the idea of the formation of balls or knots in the belly. The pulse is, in general, little affected in the beginning, but the symptoms not yielding, or becoming more intense, it becomes quick and hard, or oppressed; general febrile symptoms may supervene, and inflammation be established. The tongue, at the commencement, is white and clammy, soon acquiring, however, a thick fur or coating.

Bilious colic implies the more general existence of a severe derangement of the biliary organs, attended by greater intestinal spasm, and more frequently, if not always, preceded by loss of appetite, headache, nausea, and other symptoms of a disordered hepatic secretion. The stomach is very irritable, generally throwing up large quantities of green or yellow bile. The skin, in bilious colic, is almost

uniformly sallow, the eyes yellow, and the tongue covered with a thick fur. The discharges from the bowels when they do occur, are generally of a deep brown or blackish color and tarry consistence, or sometimes of a grayish white color, showing a deficiency of the biliary secretion, in the last, and a vitiated or morbid one in the former.

Treatment.—The general indications in the treatment of this disease, are to relieve pain, and to evacuate the bowels. In simple spasmodic colic, hot clove, or cinnamon or ginger tea, ten to twenty drops of essence of peppermint or ginger, one or two teaspoonfuls of paregoric, or twenty to forty drops of laudanum, will generally cure, although in apparently mild cases, a hot mustard foot-bath, and mustard poultices to the abdomen and limbs, will be required. Where the attack proceeds from some indigestible article of food, a frequent cause, and to be suspected when occurring shortly after a meal, it will be proper to administer an emetic of ipecacuanha, or of salt and mustard, which being safe, sure, and at hand, will most frequently effect an immediate cure. Should, however, the pain continue, after copious vomiting, a large dose of castor oil, with a few drops of laudanum, paregoric, essence of peppermint, or ginger, will be proper. In some cases, where an emetic is not considered necessary, ten to fifteen grains of blue mass, or calomel, with one of opium, and one or two of ipecac., followed in a short time by a dose of oil, and a large mucilaginous injection, will generally effect a cure. In some cases, a large warm injection of soapsuds, flaxseed tea, or water, with thirty to fifty drops of laudanum, will prove sufficient. In most cases, however, it will be proper to give from six to ten grains of blue mass, and one or two of opium and ipecac., before, or after the injection. When the pain is very severe, hot mustard foot-baths and poultices, or flannel steeped in turpentine, or strong hartshorn, externally, are necessary. In cases of great severity, with a hot skin, a quick and hard, or oppressed pulse, bleeding from the arm, or locally by cup or leeches, becoming indispensable, and the quantity of blood to be abstracted, must be sufficient to produce a manifest alleviation of pain, or its entire removal. This should be followed by a dose of calomel and opium, large mucilagi-

nous injections, mustard to the belly, and large doses of oil, to which laudanum may be added, and repeated every hour or two, until the bowels are freely moved.

In colic attacking gouty persons, one or two teaspoonfuls of the volatile tincture of guaiacum, with thirty or forty drops of laudanum, is often successful.

In an attack of colic, with obstinate constipation, and great irritability of the stomach, causing everything to be rejected, in addition to the above remedies, the following injection may be used with success: one or two table-spoonfuls of oil of turpentine, well mixed with the yolk of two or three eggs, or thick mucilage, and half a pint to a pint of warm water.

In some severe cases of colic, opium in large doses, or laudanum, frequently repeated, as well by the mouth as by injection, are required, before relief will be afforded. It should be distinctly remembered, that in all diseases attended with intense pain, the susceptibility of the system to the action of opium, or its preparations, is so materially diminished, as to require them to be given in much larger quantities, and more frequently repeated than in the natural condition of the system.

The above remedies failing to produce the desired effect, one or more tobacco injections have been recommended. The only safe mode of employing this violent remedy, is to infuse fifteen or twenty grains of tobacco, in six ounces of boiling water, for ten or fifteen minutes, then strain and use as an injection. This injection may be repeated every one or two hours, if necessary, until the characteristic effects of the medicine show themselves, as giddiness, faintness, exhaustion, or muscular relaxation, when it should be immediately suspended, and not resumed before the entire disappearance of such effects.

During the continuance of this disease, rice, barley, or gum-water, flaxseed tea, gruel, arrow-root, or sago, should alone be allowed. Convalescence having been established, a more nourishing diet, as broths, made with beef, chicken, mutton, or veal, may be given, and a gradual return to the accustomed diet recommended.

COLIC, PAINTERS'.

This disease is caused by the gradual introduction of lead into the system, by working in the manufacture of white lead, by sleeping in a recently-painted room, or, as by some asserted, the internal use of some of the preparations of lead. The external employment of lead has been known to produce a well-marked attack.

Symptoms.—Painters' colic generally commences with a decrease or loss of appetite, languor, or depression of spirits, slight twisting pains in the region of the navel, and a tendency to costiveness, all of which soon increase in severity. The constipation is obstinate, frequently resisting the action of the most powerful cathartics, and is one of the most constant and characteristic symptoms of the disease.

The pain becomes intense, particularly around the navel, although extending over the abdomen, causing the body to be bent, and the abdominal muscles to be thrown into knots, and retracted towards the spine. Cramps in the muscles of the limbs are also present, and after some time palsy of one or both hands; the wrists drop, and the power of raising the hand is lost; the face is flushed, the pulse slow and hard, the tongue pale, moist, and flabby, at times coated; the breath offensive; nausea and vomiting of bilious matter are frequently present, the stomach being very irritable. Great relief is afforded by keeping the body bent upon the knees, which is a very common position. In this disease, there is intense inflammation of the bowels, tending rapidly to mortification, and by many this is considered to be the disease. A peculiar and certain sign of this disease, is a perceptible bluish or purple line, extending along the edges of the gums in contact with the teeth. The characteristic symptoms of painters' colic, distinguishing it from every other disease of the abdominal organs, are the situation of the pain around the navel, the retraction of the muscles of the abdomen, the very obstinate constipation, the general absence of fever, and the preference given to the bent position of the body.

Treatment.—The most successful plan of treating this

disease is a combination of cathartics, opiates, and bleeding, with mercury pushed to salivation. Bleeding, both general and local, carried to a considerable extent, is imperiously demanded in the commencement of the disease; a decided impression should be made by it upon the symptoms, and general system. In those cases, of rare occurrence, where local bleeding may be dispensed with, a mustard poultice, flannel steeped in oil of turpentine, or the strong ammoniacal liniment, should be supplied to the whole abdomen, after which a warm poultice of bread and milk, or flaxseed meal, is to be applied and renewed every hour or two. A general warm bath is of great benefit, and while in it the patient should take copious injections of the warm water, which, in consequence of the great relaxation produced by the bath, will frequently produce an abundant discharge from the bowels, and afford instantaneous relief. A dose of calomel, fifteen to twenty grains, with one or two of opium, and one of ipecacuanha, should now be given, and followed in three or four hours, by a large dose of oil, which should be repeated every one or two hours, until the bowels are freely acted upon. A drop or two of croton oil mixed with the castor oil, adds to its activity and certainty, and by rendering the dose of oil smaller, will often be retained when larger ones would be rejected. If castor oil cannot be taken, or retained, the croton oil may be given in a small quantity of mucilage, or made into a pill with powdered gum Arabic, or flour. By many, the combination of croton oil, and oil of turpentine, is considered the best and most certain purgative in this disease, especially if the costiveness be very obstinate.

For the palsy, which at times remains after the disappearance of the acute and most alarming symptoms, frictions with stimulating liniments, electricity, or galvanism, the warm douche, or strychnine may be applied externally with advantage.

Alum, alone, or in combination with opium, twenty grains of the former, and half a grain of the latter, given every hour, has proved successful in curing this disease.

Alum has been extolled by Gendieu and others, who give from a drachm and a half to two drachms, in a ptisan

or drink, to be taken during the day, adding forty or fifty drops of laudanum to the whole. On the second or third day, if the bowels do not act, a mild aperient is to be given.

Throughout the course of this disease, it is important to keep the bowels loose, by frequent doses of oil, or injections. In those exposed to the causes of this disease, it is important to use every endeavor to prevent its appearance, and, for this purpose, too much stress cannot be laid upon the necessity of cleanliness, always washing the hands and face before eating

The free use of oil, or fat, has been considered beneficial for those working in lead, and calculated to prevent an attack.

The constant and liberal use of sulphuric acid lemonade, an agreeable and easily-administered remedy, has been pronounced the best and most certain means of protecting the system from the poisonous influence of lead, by converting any preparation used into an insoluble and inert sulphate of lead: this experiment is said to have been fairly and successfully tried in the British white-lead works of Birmingham, under the direction of Mr. Benson.

Throughout the violent stages of this disease, farinaceous and mucilaginous drinks should alone be allowed, unless the prostration in the latter stages should demand that of a more nourishing and stimulating character. In this disease, after the most urgent symptoms have been subdued, Dr. Melsens has used, with the greatest success, five grains of the iodide of potash three times a day.

CONSTIPATION.

By constipation is understood a condition of the bowels, in which the evacuations are less frequent and smaller in quantity than in health. In deciding as to its existence, it should be remembered, that most persons have one passage daily, others only every two or three days, and cases are recorded where an evacuation was had every twelve or fourteen days, without apparent inconvenience. Sea captains, perfectly regular on shore, have gone from the United States to Liverpool, before having an evacua-

tion. These exceptions to the general rule and law of health only prove what nature is capable of performing and enduring, and should induce all to observe and follow as closely as possible her laws, which are simple and easily understood, but to practise how difficult!

Constipation, in itself scarcely to be called a disease, may and does lay the foundation of many of a severe character. It is frequently produced by other diseases, and may be said to consist in a less frequent evacuation of the contents of the bowels than is usual in or consistent with a state of health.

Habitual constipation is the cause of many local and constitutional diseases, and of none more frequent or distressing than hemorrhoids or piles. The usual symptoms are more or less pain or uneasiness in the head, a furred tongue, loss of appetite, fulness of the abdomen, a sense of oppression, accompanied with languor of body, irritability of temper, and, at times, palpitation of the heart. Constipation is a frequent result of inflammatory diseases of the abdominal organs, still more so from a sedentary mode of life, and consequent want of proper exercise. At times it results from an obstruction in the bowels, arising from an accumulation of hardened fecal matter. It is a frequent attendant upon indigestion or dyspepsia. The fact is not to be overlooked, that some children are naturally costive, and it may, therefore, be laid down as a general rule in such cases, that if no sensible inconvenience is perceived, it is safer not to resort to much or violent medication, for fear of producing a more positive evil. In all cases of constipation, whether of children or adults, it is better to overcome or counteract such a state by the aid of diet and exercise, rather than the administration of medicines, which should be the last resort, or used with moderation, and selecting the mildest laxatives.

Treatment.—In many cases, the use of certain articles of diet, known to possess laxative properties, with an effort, at a regular hour, to have an evacuation, will be sufficient. The following articles of diet are especially useful: well-cooked greens, rye mush and molasses, roasted apples, stewed preserves. These, with regularity in going to stool,

will generally succeed. Mush, made of unbolten wheat flour and water, sweetened with molasses, is a certain and simple remedy.

Dr. Warren praises highly wheat coarsely ground in a coffee-mill, and boiled for three or four hours in water. A little salt being added, and this used in moderate quantity at every meal, he has found superior to all other dietetic means in obviating, or overcoming constipation. The daily use of an injection of cold water, by itself, or with soap, or salt dissolved in it, will produce an evacuation, and tend to restore a regular and healthy action to the parts. Equal parts of the milk, or flowers of sulphur, cream of tartar, and confection of senna, mixed and taken in doses of one or two teaspoonfuls, once or twice a day, are often successful.

The following will often prove efficient: Put one ounce of Epsom salts, half an ounce of cream of tartar, and two drachms of rhubarb root, bruised, in one quart of boiling water. Dose, one wineglassful every night, or night and morning, until the bowels act regularly.

The following mild pill, taken an hour before dinner, will generally have a good effect: Two grains of rhubarb, one of aloes, and the fourth of a grain of ipecacuanha. To overcome constipation in children, the use of a suppository is a mild and efficient remedy. This suppository is made of a piece of common brown soap, one inch long, a quarter of an inch thick, tapering and rounded at one end. Dipped in warm water, and gently pushed up the rectum beyond the sphincter, the bowels will generally be found to act.

In some cases the following has succeeded in overcoming the disease. Extract of hyoscyamus, five grains; ipecac., ten grains; magnesia, half a drachm; make into twenty powders, and give one three or four times a day.

Rubbing the abdomen and side night and morning, with a strong purgative liniment, will at times succeed in restoring a regular action to the bowels; for this purpose we may use the compound tincture of aloes, with a few drops of croton oil, in two ounces of soap liniment. The daily application of galvanism, has proved successful. In those cases of constipation, not of an habitual character, but evidently depending upon an obstruction, generally of hard-

ened feces, injections of warm water, soap and water, flax-seed, or senna tea, gently introduced, will frequently break down, or remove the obstruction, and cause a profuse evacuation. In the constipation of children, one grain of supercarbonate of soda, dissolved in one or two teaspoonfuls of water, and given every ten or fifteen minutes, for one or two hours, will enable a mild laxative subsequently to succeed. Where great pain attends upon constipation, general or local bleeding will at times be required before other means are used, and in such cases a few pills of blue mass, ipecac., and opium, followed by mild injections, will often succeed. Dashing cold water on the abdomen, will often procure an evacuation from the bowels. In habitual constipation of long standing, the conjunction of quinine, and other tonics, with purgatives, often becomes necessary. Small and daily-repeated doses of charcoal are often successful.

In all cases of constipation a shower bath, or a sponge bath, followed by hard friction with coarse towels, a flesh-brush, or the hair-gloves and strap, conjoined with regular exercise, systematically pursued, and carried to fatigue, will prove of great benefit, and indeed in many cases, without such powerful aid, it will be found impossible to overcome the unhealthy habit of constipation.

CONSUMPTION.

It has been justly remarked by Dr. Latham, that pulmonary consumption is but a fragment of a great constitutional malady, which plays its part most conspicuously in the lungs. The formation of tubercles is closely connected with the existence of the scrofulous diathesis. The exciting causes are mainly those of debility, and whatever depresses the vital powers, by permanently weakening the body, tends, in a predisposed habit, to facilitate the formation of tubercles, and produce this disease. From the existence of these facts, results the benefit acknowledged to follow the long-continued use of cod-liver oil, with preparations of iron. Yet will these, without the unceasing aid of hygienic measures, most frequently fail.

The general symptoms of consumption are, cough, un-

easiness, or difficulty of respiration, expectoration (not always present in the commencement), often more or less hemorrhage, wasting of the flesh, great prostration of strength, hoarseness, or loss of voice, and towards the close, hectic fever, night sweats, and diarrhœa. The wasting of the system, and the loss of strength, are often the earliest and most alarming symptoms, frequently becoming excessive, before perspiration, diarrhœa, or any other cause has occurred to account for them.

When these symptoms exist, with a quick pulse, and a short, hurried respiration, fears may be entertained that the tubercular disease has commenced its insidious attack upon the lungs. The great discovery of the immortal Laennec enables those well versed in stethoscopic examinations, to decide with accuracy upon the true condition of the lungs, in otherwise doubtful cases, though, as a general rule, with unfortunately too few exceptions, the positive signs of the commencement of this disease are so strongly marked as scarcely to admit a doubt in the mind of any, but the future victim, who, from the beginning to the end, clings to the fallacious hope of there being little the matter with him.

That some cases of consumption are capable of being cured, is generally conceded; to accomplish, however, so rare an occurrence, it is indispensable that it be grappled with in its forming stage, which, if allowed to pass by, and debility of the general system, with a weakened, and imperfect action of the digestive organs supervene, the resources of medicine will prove powerless in arresting the gradual but certain advance of the disease. Many of those descended from consumptive parents, or with constitutions so feeble as to cause well-grounded apprehensions for the future, may, by pursuing at an early period a proper course, as to diet, exercise, and such juvantia as may be required, be snatched from the threshold, and lay the foundation of a moderately robust health.

The wise and judicious practical remarks of the late Dr. Parrish cannot be too seriously attended to, when alluding to the treatment of consumption, if any prospect of a cure

is rationally to be entertained. See Antiphlogistic Regimen.

Treatment.—To prevent the development of this disease, in those in whom there is reason to apprehend its approach, to arrest its progress in its incipient stage, and to alleviate the most distressing symptoms when we cannot hope for a cure, constitute the important points in the management of consumption. The greatest attention should be paid to that course calculated to maintain a regular and healthy action of the different organs, by means of exercise in the fresh air, a nourishing, but unstimulating diet, avoiding all articles known to disagree, and refraining from stimulating drinks. There can be no question of the occasional propriety of the use of malt liquors, wine, or brandy, but much more permanent benefit is apt to follow the regular use of the different mineral and vegetable tonics so abundantly afforded by the hand of nature. The importance of regular exercise of various kinds, in the open air, not carried to the extent to exhaust the system, though daily increased to the degree warranted by the general strength, and the effects produced, is generally conceded. Of all exercises, that on horseback is to be preferred, and should be daily practised to as great a degree as can be endured. The principal benefits resulting from this combined active and passive exercise, are the free expansion given to the lungs, and the invigorating influence upon the digestive organs. The use of a light pair of dumb bells, and splitting or sawing wood, cannot be too highly praised.

The advantages resulting from the external application of cold salt water, should cause every effort to be made to enable the body to become accustomed to its use, by sponging, every morning, the throat, breast, abdomen, and arms for a short time, followed by friction with a coarse towel and flesh-brush, or horse-hair glove. If, instead of feeling invigorated, the individual complains of chilliness, and the want of a healthy reaction, the cold water must be omitted, and the following liniment substituted for it. ℞.—Mur. sodæ, ʒii; camphor, ʒii; tannin, ʒii; sinapis., ʒij; tr. canthárid., ʒii; aq. ammonia, ʒi; sp. vin. rect., ʒxii. The use of this every morning and night, for a few weeks,

by moistening the end of a coarse towel, and rubbing the throat, breast, and sides, proves beneficial, and generally enables the cold salt water to be applied with advantage. A long sea voyage, undertaken at a proper period, is of unquestionable service, and many more cases would be benefited by it, if so long a time was not allowed to elapse before admitting the necessity of such a course.

No little difference of opinion prevails in regard to the diet proper for the different periods of this disease; some advocating the necessity of a farinaceous diet, while others insist upon the importance of animal food, with a moderate quantity of malt, or alcoholic liquors. While admitting the necessity of making the quantity and quality of nourishment to depend upon the symptoms, constitution, and general strength of the individual, it may be remarked, that as a general rule, much more evil than benefit has resulted from the rigid diet, and debilitating plan of treatment, which for so long a period held an almost supreme control in the management of the different stages of consumption.

The daily exhibition of emetics enjoyed at one time a high reputation in the treatment of this disease, and the practice has been lately revived; but though occasional cases may present themselves where such a course may prove serviceable, still as a routine plan of treatment it is to be condemned.

In cases attended with pain and inflammatory symptoms, general or local bleeding, to a moderate extent, may be required, and generally the application of cups to the breast is to be preferred, as independently of the loss of blood, the counter-irritation is of unquestionable service; and in such cases it becomes necessary to enjoin rest, a mild, nutritious diet, and such medicines as may be demanded, being cautious not to reduce too much the general strength, daily observation proving the importance and propriety of overcoming the local irritation, or inflammation, while, at the same time, we endeavor to support the powers of the system. Inflammatory symptoms not existing, or having been removed, a more liberal diet is to be allowed, with a moderate quantity of malt liquors, and the continued use of

tonics, as bark, and the preparations of iron. Iodine and its preparations, particularly of iron, are in many cases remedies of great power, and have received the sanction of a large proportion of the profession. To allay the cough, opium, in some form, combined with the different expectorants, has long deservedly held the highest reputation, and may be regarded as the most valuable of all our remedies. A variety of cough mixtures are made, into all of which opium in some form enters, and upon which, in many, their sole virtues depend. Digitalis, or fox-glove, was at one time supposed to be a perfect cure for consumption; further experience has, with this, as with all other single remedies, amply proved its worthlessness, although to combat some of the symptoms, it is at times used advantageously. Of all the modes of applying remedies for the cure of this disease, that by inhalation, in which the remedy is brought directly in contact with the diseased surface, is most in accordance with reason, and is fully supported by facts.

Cod-liver oil has come into very general use for all seized or threatened with consumption. While facts prove that this oil does possess valuable properties in supporting the general strength, and arresting the depressing effects of the disease, it still remains to be more conclusively shown that by itself it possesses the powers so lavishly bestowed upon it. See Dr. Wood's remarks in article Cod-Liver Oil.

CONVULSIONS, FITS.

This disease consists in violent involuntary contractions, with alternate relaxation of the muscles of a part or of all the body; most generally, if not always, these symptoms indicate disease in other and more important parts. Convulsions occur most frequently in infants, and in general, their cause may be referred to an affection of the brain, originating there, or produced by worms, or other derangement and irritation of the stomach and bowels, or by teething. They are always to be dreaded, and should receive immediate attention.

The attack may come on suddenly, without any warning, or be preceded by one or more of the following symptoms: cold extremities, alternate paleness and flushing of the face,

disturbed sleep, peevishness, irritability of temper, irregular and hurried respiration, flatulence, or uneasiness in the bowels, a sensation of coldness, or shivering down the back, a dull pain, or sensation of weight and fulness in the head, drowsiness, sickness of stomach, grinding, or gnashing of the teeth, foaming at the mouth, delirium, coma, and insensibility. The pulse is full and frequent, at times, small and oppressed.

Treatment.—In mild cases, a hot mustard foot-bath, or in infants, a general warm bath, cold applications to the head, mustard poultices to the soles of the feet, or calves of the legs, injections of tepid water, salt and water, or soap-suds, to produce an immediate action upon the bowels, a few grains of calomel, followed by a dose of oil, or salts and magnesia, will generally succeed, and are always proper. Convulsions occurring in infants or adults, of a plethoric habit, with a full, hard pulse, the eyes red, injected, and other symptoms of congestion of the brain, leeches to the temples, cupping the back of the neck, or bleeding from the arm, are necessary, for in a large number of such cases, if not in all, the brain is engorged or overloaded with blood, and if not relieved by the loss of blood, and the remedies above noticed, an extravasation of blood is apt to occur, and the case terminate fatally.

In the convulsions of infants, so frequently induced by teething, it is important to lance the gums freely whether they be much swollen or not, it being unquestionably a remedy of great, and, at times, immediate power. If necessary, it should be repeated several times, as no possible injury can result from a frequent and thorough lancing of the gums, while, on the contrary, the successful termination of the case may depend upon an effectual performance of this trivial operation.

CORNS.

These result from an unusual growth of the skin, produced by pressure from tight boots, or by friction, when, from their looseness, too much motion of the feet is allowed.

The following are among the best means for removing or obviating the effects of corns :—

After having soaked the feet, pare the hard surface of the corn with a sharp knife, being careful not to draw blood, and then apply a small oval plaster, with a hole cut out of the centre, to remove pressure from the corn. Dilute nitric acid, strong vinegar, or acetic acid, the juice of a fresh fig leaf, are useful applications if frequently applied, after having soaked the feet in cold or tepid water, with carbonate of soda dissolved in it. Lunar caustic, either in strong solution, or the moistened stick, properly applied, is perhaps the most certain of all applications. By applying the caustic every night upon the corn, we find it after a few days quite hard and loose at the edge, and continuing the application we can, after a time, pick the corn out with the finger-nail without producing any pain, and affording relief for a longer time than from any other means. Cautiously applied, I have never known any inconvenience to result.

A clove of garlic, heated in hot ashes, and bound on the corn every night, has often succeeded.

SOFT CORNS.

These, unlike those last mentioned, do not appear to be produced by pressure, and are generally found between the toes, or at their junctions, at times causing much pain.

Bathing the feet at night in cold salt and water, Castile soapsuds, or carbonate of soda and water, then touching the corns with diluted chloride of soda, dusting over them finely powdered carbonate of zinc, and interposing between the toes a piece of lint or linen rag, will generally succeed. A weak solution of lunar caustic applied occasionally, is at times successful. During the day, it is necessary to place between the toes a piece of oiled silk, buckskin, or fine linen, with Turner's cerate spread on it.

CRAMP IN THE STOMACH.

This is a sudden and often excessively painful spasmodic contraction of the muscular coat of the stomach, occurring in paroxysms, frequently causing fainting, profuse cold, clammy perspiration, and violent contortions of the body. The pulse is reduced in strength, often scarcely perceptible, or small and oppressed. Cramp in the stomach is a fre-

quent symptom of the various species of colic, generally caused by sudden exposure to wet and cold, or drinking very cold fluids, when in a great heat and perspiration, eating raw vegetables, or other indigestible food.

Treatment.—Thirty to sixty drops of laudanum, or two or three teaspoonfuls of paregoric, with twenty to thirty drops of essence of peppermint, will frequently prove sufficient; should it not, a large dose of oil, with forty or fifty drops of laudanum, and twenty or thirty of essence of peppermint, or a few drops of spirits of hartshorn, a teaspoonful of the essence of ginger, or hot clove and ginger tea with brandy, repeated every half hour or hour, will rarely fail. Bathing the feet in hot mustard-water, applying a mustard or spice poultice, or several folds of flannel steeped in turpentine, spirits of camphor, or hot brandy, to the stomach, and a large warm injection, adding to it thirty or forty drops of laudanum, will most frequently succeed.

Occasionally, the attack proves so violent, as to require copious bleeding from the arm, before any improvement is manifested, after which, as well as in milder cases, where bleeding can be dispensed with, a dose of calomel, opium, and ipecac., followed by oil, and a large warm anodyne injection, will generally prove successful.

In those cases occurring a short time after eating, an emetic of ipecac., or mustard, and draughts of warm water, will, by removing the cause, produce immediate relief. So apt is the stomach to acquire the habit of being affected by cramp, from the use of improper and indigestible food, that those subject to attacks cannot be too careful in selecting mild, nourishing, and easily-digested food.

CROUP, OR HIVES.

Croup, popularly called hives, a disease of frequent occurrence and fatal tendency, consists in an inflammation of the mucous membrane of the trachea, or windpipe, and adjoining parts.

Croup is always to be regarded as a dangerous disease, even when the symptoms may appear so slight as to induce the belief, or rather the fallacious hope, that, as an ordinary cold or cough, it will pass by and leave no unpleasant con-

sequences to mark its advent or progress. It is of more frequent occurrence in some situations than in others, and some children are more subject to an attack than others. It is most apt to occur in the spring and fall, during sudden transitions of temperature. Any sudden change in the weather, which shall arrest perspiration, is followed by cases of croup, especially with those predisposed thereto by habit or idiosyncrasy.

Croup is emphatically a disease of infancy and childhood, being of rare occurrence after the age of puberty, although occasional instances are recorded of its attacking adults.

Croup is often sudden in its approach, and rapid in its progress. In the majority of instances it commences with the usual symptoms of an ordinary cold, as, sneezing, fretfulness, and that peculiar hoarseness of cough and voice, so perfectly characteristic of the disease, sounds once heard, never to be forgotten.

This disease may occupy several days in running its course to recovery or death, or it may commence and end fatally in a few hours. Many varieties of it have been described, and modified or peculiar plans of treatment advised and adopted; but it may fairly be questioned, whether, in a curative point of view, any advantage has resulted from such a diversity of pathological views, and the necessary discrepancy as to the most proper plan of treatment to effect the greatest number of cures, the end and aim of the medical art.

The only varieties, if so they may be called, I have ever thought worthy of notice, have been those caused by the mode of attack; either, first, a hoarseness perceived upon coughing, which may continue several days, or, until some change in the air, or other cause, may suddenly cause an increase of all the symptoms; or, second, when an attack may commence suddenly, without the least premonition, and these generally occur in the middle of the night, or towards morning. The first give more time, and are more manageable, with milder treatment, while the last admit of no delay, and require remedial measures to be immediately and simultaneously put in practice.

We may regard this disease as one of a highly inflamma-

tory and dangerous character, involving parts essential to the continuance of life, and disposed to run its course with fearful rapidity, facts not easily disputed. There are modifications of the peculiar symptoms, depending upon a slight difference of locality of the inflammation, but we should proceed with a certain conviction, that in eight cases out of ten, the disease will advance with rapidity, and increased severity, most probably destroying life, unless the most vigorous plan of proceeding be at once commenced, and continued until health be restored, or the more dangerous symptoms subdued.

Such a conclusion does not involve the absolute necessity of employing all of the remedies in the most heroic manner; for, here, as in other cases, judgment is demanded, and a timely use of an efficient remedy may arrest further progress, and prevent the necessity of extreme measures. My maxim has been, not to wait for alarming symptoms before setting to work, but rather to vigorously ply a well-known remedy, hive syrup, until vomiting shall have been produced, and then wait to see what time, with nausea by the same remedy, would effect. But wait not until death is staring you in the face, and then resort to the cruel and useless operation of tracheotomy, although I know there have been cases reported, where it is said to have proved successful. There may be some diseases or accidents where such an operation is justifiable and proper; but never in croup, if a proper treatment has been timely instituted and vigorously pursued. If such has not been the case, it is too late, the time has passed, and death, as far as human means can go, will necessarily result.

Let us hear what Professor Dewees said in reference to this hopeless resort in croup: "As a last resource, tracheotomy has been proposed with confidence, but it has been but too often performed without success. Nor is this to surprise us, since by the operation nothing more can be expected, than has resulted from the spontaneous discharge of the membrane, and we have already said that this is but rarely followed by permanent relief. In our opinion, the operation has been performed with more intrepidity than discretion; for, until we can prevent new accumulations

after the removal of the previous ones, we need promise ourselves but little success from this scheme. It has been said, that the failure from this operation has been principally owing to its being performed too late; and hence it has been advised early in the disease. But who would promise himself, that he had saved life by this operation, since, if it be performed early, other remedies might have succeeded as well. And when performed late, who has witnessed its success? Therefore, in the early stage of the disease, the operation is certainly not called for, nor would it be proper to have recourse to it, since the disease is very often relieved without it; and in the latter, we believe it has ever been unavailing. We have seen it performed twice without success, where the operation, simply considered, had every advantage which sound judgment and consummate skill could give it, for Dr. Physick was the operator. He had no confidence in it." How could he?

In reference to the violence of this disease, and the necessity of abstracting what may appear a large quantity of blood, from those of tender years, I may remark, that in one of my own children, as well as in those of other families, I have been forced to continue the flow of blood, the sheet anchor of hope in some cases of croup, in conjunction with other remedies, until convulsions caused by the remedy had manifested themselves, before the choking and death-approaching symptoms would yield; and yet, in all of these cases, I was satisfied of the correctness of the course, and that, as far as human means could avail, no milder plan would have succeeded. Those alluded to are now advanced in years, enjoying the most perfect and robust health.

As bearing upon this point, I may properly quote from Dr. Wood's Practice. "Indeed, in the earliest stage, before secretion has commenced, it would be impossible to determine, with certainty, which form the disease was about to assume; also, that there may be cases in which the two forms may be combined, and that, from these facts, the highly important practical inference is deducible, that in every case in which the symptoms of croup appear, efficient remedies should be promptly applied, for, if carefully employed, they can do little serious or lasting injury, while

the neglect of them may possibly lead to the most deplorable consequences."

The following remarks are from the late eminent Professor Dewees: "How many parents have had reason to repent of the neglect of a slight hoarseness, of perhaps several days continuance, which terminated in death in a few hours, after it had fully developed its character; and how many, who perhaps in some measure aware of its tendency, had relied upon a feeble administration of antimonial wine, or a little of the expressed juice of the onion, when nothing but the prompt application of active remedies, could, even in its commencement, have subdued the disease."

Long before the appearance of Dr. Wood's Practice, I had formed the above opinions, and adopted the course of practice necessarily resulting therefrom. The success has been satisfactory to all; and, at the risk of incurring the imputation of self-laudation, which certainly is not my object, for truth and human life are the results, but with the hope of doing good, and indirectly of being the means of saving life, I must be excused when I say that out of more than one hundred and fifty cases of croup, of all degrees of violence, between 1823 and the present, 1853, I have lost but one patient, and that attended by peculiar circumstances not necessary to state here.

In undertaking the treatment of croup, let the principles laid down for our guidance be carried out at the bedside, and cures will follow more generally, while theorists may employ their minds in discussing the pathological shades of difference in that, which, for all practical and curative purposes, should be considered as one disease.

Let it be remembered, that hoarseness is the only premonitory symptom of croup, though it may in some instances be accompanied or preceded by catarrhal symptoms, but not necessarily. Whenever such is observed, although there may be some hoarseness in ordinary coughs, let the advice of Professor Dewees be remembered. "But it may be proper to advise, whenever hoarseness takes place, not to trust too much to the discriminating powers of the ear, for its nature, but instantly to proceed upon the supposition that

it may be of a dangerous kind, especially as the remedies employed for the one, will most certainly relieve the other. It is therefore erring on the safe side, to treat it as if it might be of a mischievous character, though it might have passed away without such treatment."

Upon the first appearance of hoarseness in the cough, and the dry, harsh, metallic sound in the act of inspiration, no time should be lost, for the sooner the appropriate treatment is commenced, the greater will be the prospect of a cure. As the disease advances, the symptoms become more serious, the face is generally flushed, or occasionally livid, the eyes swollen and red, the skin hot and dry, the pulse hard, full and frequent, though at times it will be found oppressed and small, with the respiration short and labored. One of the characteristics of croup, as alleged, and the source of the greatest danger, is the tendency of the inflammation to throw out a false membrane upon the inner surface of the trachea and adjoining parts; but this will not occur, where appropriate and well-timed vigorous treatment has been adopted. Having never met with the slightest trace of this false membrane, to what causes must I attribute that fact, other than a very free use of properly prepared hive syrup, copious bleeding from the arm, and such other auxiliaries as the actual symptoms of each case might indicate.

In reference to this remedy, Coxe's hive syrup, upon whose efficacy so great stress has been laid, which Professor Dewees and all others who have used it when properly prepared, have praised in the highest terms, I may remark that it was prepared expressly for croup, and for my especial benefit in early infancy, my attacks of that disease having been frequent, dangerous, and difficult of management. When rightly prepared, and freely administered, the hive syrup will rarely, if ever, disappoint our most sanguine expectations. Such I know was the opinion entertained, expressed, and published respecting it by Professor Dewees, and such I have always found to be the fact. It may truly be said, that no other remedy, or combination of remedies, can be compared to it, for the cure of croup. The experience, during more than half a century, of its uniform suc-

cess, by Professor Coxe, with my own for thirty years; the testimony of the oldest and ablest physicians; its popularity as a household remedy, in consequence of its intrinsic merits and certain efficiency, are ample proofs that it is to be depended upon in cases of emergency, and that in mild cases, or, most generally, in the commencement of all attacks, it will suspend the further progress of the inflammation which constitutes the disease.

Treatment.—Much that relates to the successful treatment of croup has already been noticed, and it may be sufficient here to remark, that the free use of hive syrup, often by itself adequate to accomplish a cure, with bleeding from the arm to an extent only to be governed by each case, and repeated, if necessary, are the remedies upon which the utmost reliance may be placed. The only necessity for a repetition of the bleeding, will be a recurrence of the difficult respiration, violence and hoarseness of the cough, with the harsh dry inspiration. Let it be remembered, however, that one large bleeding, sufficient to produce the effect demanded, will be safer, and debilitate the patient less, than several smaller ones, at distant intervals.

From the commencement of the disease, vomiting should be induced, and kept up, as long as may be necessary, by repeated doses of hive syrup, every few minutes, after which nausea must be maintained for one or more hours, by the occasional exhibition of smaller doses of the same, at intervals suited to each case, regardless of the vomiting which may occur from time to time. In case hive syrup of a proper quality cannot be procured, antimonial wine, ipecac., or its syrup, tartar emetic, dissolved in water, or any other prompt emetic, may be substituted. Teaspoonful doses of powdered alum in water or syrup have been strongly recommended, and may be used, if other more efficient remedies are not at hand. The addition of alum to the hive syrup is not inadmissible, and in some cases where a great insusceptibility to the action of emetics exists, often singularly the case in croup, I have used it with apparent benefit.

While the above remedies are being used, the feet or the whole body should be placed in a hot or warm bath, the throat and upper part of the breast well rubbed with some

strong liniment, as turpentine or ammonia, or covered with a mustard poultice, the child being covered with a blanket, to produce a perspiration at the same time.

Either during the attack, when severe, or subsequently in almost all cases, a dose of calomel, followed in a few hours by one or more doses of castor oil or senna tea, to act freely on the bowels, should be given.

In order to prevent the recurrence of an attack of croup, the following night, a fact of frequent occurrence, unless anticipated and prevented, it will always be prudent to give a moderate dose of calomel with a full dose of paregoric at bedtime, and the following morning a strong infusion of senna tea, or a dose of oil to act well on the bowels, with occasional small doses of hive syrup and paregoric.

In the commencement of croup, to arrest its progress, or in some cases when difficulty exists in producing vomiting, a plaster of Scotch snuff, first recommended by Dr. Godman, may be applied to the throat and breast with advantage. It produces full vomiting with much nausea, upon which its efficacy depends.

It frequently happens that more or less cough, with hoarseness, without the harsh inspiration, will continue several days after the disease may be said to be overcome; and for this a combination of hive syrup and paregoric will answer admirably—the dose of each being proportioned to the age of the child, and the violence and frequency of the cough. A good night's rest by means of a full dose of hive syrup and paregoric will often produce surprising effects, breaking up the apparent spasmodic and periodic cough, so frequently observed at the end of this disease. An occasional dose of oil, in the convalescence from croup, is often required, and will prove useful.

During the continuance of croup, and subsequently, for a few days, a free use of mucilaginous drinks, as gum-water or flaxseed tea, with sugar and lemon-juice, may be allowed, and, if desired, the drinks may be iced. The diet, during convalescence, should consist principally of farinaceous articles, as rice, mush and molasses, sago, arrow-root, tea and toast, or milk and water.

DIARRHŒA, LOOSENESS.

This disease consists of repeated discharges from the bowels, at times offensive, slimy, and more or less tinged with blood. Diarrhœa may be of short duration, when caused by over-eating healthy food, or a moderate quantity of that of an indigestible character, when it may be regarded as an effort of nature to rid the bowels of the offending matter. Most generally, however, and perhaps uniformly, when of some duration, there may be said to exist irritation, or inflammation of the mucous membrane of some portion of the bowels.

Treatment.—In those cases, evidently depending upon excess of food, or its improper quality, taken into the stomach, if seen early, the correct plan is to administer an emetic of ipecac. or antimonial wine, or, should these not be at hand, one of mustard and salt will most frequently arrest the progress of the disease.

In many cases, from three to five grains of blue mass, one of ipecac., and one of opium, followed, in three or four hours, by a dose of oil, or spiced syrup of rhubarb, with well-boiled rice, plain chicken or mutton broth, and barley or gum water for food or drink, will generally effect a cure in a day or two.

Frequently, a single dose of the following, will remove the cause, and effect a cure. One or two tablespoonfuls of spiced syrup of rhubarb, two teaspoonfuls of the tincture of rhubarb, and thirty or forty drops of laudanum. Burnt brandy is a popular remedy for diarrhœa, and unquestionably, in mild cases, unattended by inflammation, either it, or a small quantity of hot brandy and water, at bedtime, will prove adequate to a cure.

In cases of longer duration, confinement to the bed or house for several days, a hot mustard foot-bath at bedtime, a mustard poultice over the abdomen, with the following pill: Blue mass, grs. iii; Powdered ipecac., gr. i; Powdered opium, gr. i, at bedtime, for several consecutive nights, allowing nothing but well-boiled rice, with rice-water or elm-bark infusion for drink, will generally restore the bowels to a healthy state.

Occasionally, in protracted cases, it will be necessary to apply a few cups to the abdomen, followed by a blister to the same part, leeches to the anus, confinement to bed, an occasional pill of blue mass, ipecac., and opium, as above, allowing no other nourishment or drink than rice gruel and elm-bark infusion.

Where there are no indications of irritation, or inflammation, the common chalk mixture, to which may be added small quantities of laudanum, and tincture of kino, or catechu, may be given three or four times a day, with great benefit, or ten to fifteen grains of the pulv. cretæ compos. cum opio, may be given two or three times a day.

The following pill, two or three times a day, for several days, often succeeds in protracted diarrhœa. Sulph. copper, half a grain; powdered opium, half a grain; powdered ipecac., half a grain. In many cases, after the failure of other means, two or three grains of powdered nux vomica, three or four times a day, has succeeded in effecting a cure. As a general rule, during the existence of diarrhœa, the preparations of rice, barley, or hartshorn shavings, are most proper, though occasionally plain animal broth, with no other addition than rice, will be found to agree best. At times, especially in debilitated constitutions, it will be necessary to administer some bitter tonic, or preparation of iron. A decoction of Irish or Iceland moss, in milk and water, has been used with much benefit in chronic cases of diarrhœa.

DYSENTERY, BLOODY FLUX.

This disease consists in an inflammation of the mucous membrane of the large intestines, accompanied by small, mucous, and bloody evacuations. Dysentery generally commences with griping pains, more or less severe, in the lower part of the abdomon, called tormina, followed by small discharges, after which the pain is for a time relieved. In a short time there is a sensation of weight, uneasiness, or burning in the rectum or lower bowel, with a painful and frequently returning desire to go to stool, without discharging more than a little slimy, bloody mucus; this continues to increase in frequency, and becomes the most striking

feature of the disease, and is known by the name of tenesmus. The tongue is generally coated with a moist, whitish fur, the appetite is impaired, the skin hot and dry, more or less fever and thirst present, the secretion of bile generally diminished, and the pulse, although at the commencement not much affected, soon becomes frequent, hard, and full. The pain in the abdomen is much increased by pressure, the weight of the bedclothes being insupportable. The bladder is sometimes affected sympathetically with the rectum, causing difficulty of urinating. Should the disease not be soon relieved, the strength becomes greatly prostrated, hiccough supervenes, the mind becomes desponding, the pulse feeble, the extremities cold, the tongue coated with a brown fur, or red and aphthous, and the discharges from the bowels frequent, offensive, and dark-colored. In some violent cases, the patient experiences an indescribable feeling of sinking or hollowness in the abdomen, with a cold, damp skin.

Treatment.—In the treatment of dysentery, attention should be paid to the constancy and violence of the pain, and the existing state of the general system.

Bleeding, although not always absolutely necessary, is generally required where we find great pain and tenderness of the abdomen, with a hard pulse and hot skin. The quantity to be drawn must depend upon the violence of the symptoms, the strength of the constitution, and the present vis vitæ; for the recuperative power of nature may, from the combined influence of loss of blood and intensity of pain, suffer a depression from which she cannot be aroused.

This caution is especially applicable to cases of some duration, for in a violent and well-marked attack at the commencement, a sufficient amount of blood should be lost to produce a decisive effect, in materially relieving or entirely removing the disease, with less exhausting or prostrating effects than the frequent repetition of small bleedings. At the expiration of a few hours, should the severity of the pain return, it will frequently be necessary to repeat the bleeding from the arm, or abstract it locally from the abdomen or anus by leeches, for the purpose of maintaining the impression produced by the general bleeding. With

some the local application of leeches to the abdomen is preferred to general bleeding in all cases of dysentery.

The application, if it can be supported, of a light poultice of hops, or chamomile flowers steeped in hot brandy, or vinegar and water, or of flannel wrung out of the same, and repeated every half hour, or whenever it becomes cool to the feelings of the patient, is soothing and beneficial, and should always be applied, whether leeching be required or not. In those cases where the severity of the symptoms does not demand general or local bleeding, a mustard poultice, or flannel wrung out of hot spirits of turpentine, must be applied to the lower part of the abdomen, till considerable smarting or burning be produced, and followed by a warm emollient poultice. In the commencement of the disease, when the tongue is much furred, with a bitter taste in the mouth and nausea, or a disposition to vomit, are present, an emetic of ipecac. may be given with decided advantage, or if this be not administered, five or six grains of blue mass, one of ipecac., and one of opium, should be given, and followed in two or three hours by a dose of castor oil, combined with thirty or forty drops of laudanum. In many cases, it will be necessary to repeat the oil and laudanum several times, at intervals of three or four hours, until a natural evacuation is produced, and the tormina and tenesmus greatly reduced or removed. In many cases of dysentery, the following pills, with occasional small doses of castor or sweet oil, and a drink of flaxseed tea with gum Arabic dissolved in it, will be found generally successful: ℞.—Blue mass, twenty grains; opium, four grains; iepcac., four grains; make into eight pills, and give one every three or four hours.

Occasional injections of flaxseed tea, mucilage, or sweet oil with twenty or thirty drops of laudanum, are beneficial, relieving the pain and straining, and composing the patient. Great benefit is frequently produced by giving at bedtime a full injection of laudanum, fifty to eighty drops, in a few tablespoonfuls of flaxseed tea, or starch, which by easing the pain, enables the patient to enjoy a good night's rest, one of the best restoratives in most diseases. In cases of dysentery of long standing, a few grains of hydrarg. cum creta,

six to ten, combined with an equal quantity of Dover's powder, repeated for several successive nights, bathing the abdomen with a stimulating liniment, and confinement to a farinaceous diet, as rice gruel, will often effect a cure. In cases of dysentery, attended by functional derangement of the liver, one of the following pills, repeated once or twice a day, for two or three days, with a diet of rice gruel, gum-water, and elm-bark infusion, in small quantities, as the sole drink, will frequently remove the disease. Pulv. opii, gr. vj.; pulv. ipecac., gr. viij.; mass. hydrargyri, ℈j.; to be made into ten pills.

As long as the symptoms continue severe, the patient must be confined to rice or barley water, flaxseed tea, gum Arabic water, or elm-bark infusion; but these having been removed, or much relieved, rice gruel, arrow-root, sago, or tapioca, may be allowed. Calves-foot jelly, or that made with isinglass, is easily digested, and given as mild nourishment in convalescence from this and other diseases of the bowels in preference to the farinaceous articles. Beef tea and chicken broth may be given when convalescence has been established. Warm clothing is always indispensable after recovery from dysentery, and exposure to raw, damp, or night air, should be avoided for some time.

The oil of butter, first recommended by Dr. Dewees for dysentery in children, will be found equally beneficial when given to adults. In many cases, a full dose of opium at bedtime will prove of the greatest value. In chronic dysentery, strict attention to diet is all-important, in default of which a cure will almost invariably be impossible. The following pills will frequently prove successful: sugar of lead, twelve grains; ipecac., four grains; opium, four grains; to be made into eight pills, and one given two or three times a day. The following are often equally successful: sulphate of copper, four grains; opium, six grains; ipecac., four grains; made into fifteen pills. Dose, one, two or three times a day. Injections of sugar of lead, or sulphate of zinc, six to ten grains of either, in four ounces of water, and twenty or thirty drops of laudanum, repeated three or four times a day, or in some cases after each evacuation, are strongly recommended. The sugar of lead to be

preferred for the acute stage, and the zinc when of a chronic character. Warm salt-water baths, are often useful in cases of dysentery, whether of children or adults, and as a substitute, where not procurable or desired, a warm poultice, made of chamomile flowers or hops, will prove useful.

EARACHE.

This generally depends upon a greater or less degree of inflammation of some part of the organ of hearing. When of a mild character, there is pain in the ear, at times in the head, with occasionally dulness of hearing. When of a severe character, the pain is intense, sharp, deep-seated, and affects the whole head. The parts feel as if they would burst, delirium is often present, there is great anxiety and distress manifested in the face, with excessive restlessness, the pulse is frequent, full, and hard, the tongue furred, and the appetite impaired or lost. It is important that it be understood that most of the discharges from the ear, as well as a great proportion of cases of deafness, proceed from chronic inflammation of the membrane lining the internal ear.

Treatment.—When the earache is mild, rubbing the back of the ear with spirits of turpentine, or spirits of hartshorn, alone, or mixed with an equal portion of sweet oil, bathing the ear at bedtime with tepid milk and water, or flaxseed tea, then pouring a few drops of warm sweet oil and laudanum into the ear, with a dose of salts or castor oil, will generally be found sufficient. When the pain and other symptoms are severe, and the head much affected, general bleeding, and the application of leeches behind the ear, to produce a copious local discharge of blood, which should be encouraged by warm fomentations, are necessary. The bowels should be freely acted upon by a dose of calomel (six to twelve grains), followed in two or three hours by salts and magnesia, or senna and salts. The violence of the inflammation having been subdued, a blister behind the ear to the back of the neck, will be of essential service. Should an abscess form and break, the ear must be frequently syringed with tepid milk and water, flaxseed tea, or other mild fluids, and a few drops of almond or

sweet oil afterwards dropped into it. In chronic discharges from the ear it is necessary to keep the parts clean, by frequent syringing with the above, or old white Castile soap and water, and dropping into the ear a few drops of any of the following washes: chlor. sodæ one part, water two to four parts; nit. silver two to four grains, water ten ounces; pyroligneous acid, two teaspoonfuls, in half a pint of water.

The application of a few leeches, followed by a blister behind the ear, every few days, is of advantage in chronic discharges from the ears. Foreign substances, as beads, cherry-stones, &c., often get into the ear, produce great pain, and are with difficulty removed. A pair of forceps, or a scoop, may be used to lay hold of or scoop out any hard substance. The following plan is recommended by the eminent Abernethy, who succeeded by it in removing a large bead, after other means had failed. Lay the ear affected on a soft cushion, placing another upon the other; strike frequently the upper cushion, and the foreign substance will frequently be forced out.

When insects creep into the ear, fill it with warm sweet oil; the insect will be forced to come to the surface, when it can be laid hold of with the fingers, or a pair of forceps.

When wax collects in the ear, and becomes hardened, it frequently gives rise to uneasiness, and may produce inflammation. The best mode of removing it, is to wash the ear frequently with soap-suds, its best solvent, allowing it to remain in ten or fifteen minutes, and then endeavor to extract the hardened wax with the finger, a pledget of linen rolled like a quill, or a small scoop.

ECCHYMOSIS.

By this term is understood an effusion of blood under the skin, or in the interstices of any part of the body. It is generally caused by a blow or puncture, rupturing a small bloodvessel. It is of frequent occurrence during or after the operation of bleeding, and a familiar example is a black eye. The blood in an ecchymosis generally coagulates, though occasionally it remains fluid, in which case inflammation may supervene, and terminate in suppuration. To prevent this, a small puncture may be made with a

lancet into the sac containing the fluid, and gentle pressure applied to force it out, after which a pledget of lint or old linen, soaked in cold salt and water, or lead water, will be sufficient. The appropriate treatment is rest, cold applications, as lead water, salt and water, vinegar and water, the sedative solution of Raspail, diluted chloride of soda, a piece of raw beef, or scraped potato, with, occasionally, moderate pressure.

ERYSIPELAS, ROSE, ST. ANTHONY'S FIRE.

This is a constitutional affection, characterized by a peculiar, spreading, circumscribed inflammation of the skin, accompanied or preceded by fever, or, as sometimes occurs, following the local inflammation. This disease is generally ushered in with languor, general uneasiness, soreness of the limbs, chills, or rigors, alternated with flushes of heat.

Soreness of the throat is often early observed. Nausea and vomiting, or diarrhœa, frequently exist. The pulse is commonly full, frequent, and hard, and the tongue furred. The face and legs are the parts most frequently affected. When the head or face is attacked, one side of the nose, one cheek, or the tip of one ear, begins to feel hot, stiff, and tingling, swollen, hard, and is of a deep red color, rapidly extending, and defined by a distinct elevated margin. The lips swell, the cheeks enlarge, and the eyes are closed by the œdematous lids. The inflamed surface is often covered with small blisters. The inflammation occasionally extends to the subcutaneous tissue, and is followed by suppuration and sloughing. In the majority of cases, at the end of three or four days, the redness begins to fade, the swelling subsides, and desquamation ensues; while this is occurring in one part of the body, other parts may, in their turn, be attacked. In severe cases, delirium, with coma, often occurs, and after death an effusion into the brain is not unfrequently discovered. Death sometimes occurs in this disease, from an affection of the throat, the submucous tissue of the glottis becomes filled with serum, which, closing the chink of the larynx, impedes or prevents inspiration, and causes suffocation. Some individuals are

subject to repeated attacks of erysipelas, for which no other cause than general derangement of the digestive organs can be assigned.

Treatment.—As a general rule, the loss of blood is not required in erysipelas, and in large cities less frequently than in the country, but should there be headache and fever, with a full, strong pulse, and a moderate tendency to delirium, bleeding from the arm is necessary. The application of leeches in the neighborhood of the disease, is, by some, strongly commended. If nausea, and a disposition to vomit, be present, an emetic will be proper. Eight or ten grains of blue pill, with one of ipecacuanha, followed, in a few hours, by one or more doses of oil, senna tea, rhubarb and magnesia, or salts and magnesia, to operate on the bowels, will generally be demanded in the commencement of ordinary attacks of this disease. A solution of four grains of tartar emetic in a pint of water, given in tablespoonful doses every hour, is of service. To this solution is sometimes added, with advantage, from forty to one hundred gains of saltpetre. In those cases attended with prostration of the system, evinced by a feeble and frequent pulse, tremors, and a dry, brown tongue, covered with sordes, the carbonate of ammonia, four to ten grains, every two or three hours, quinine, bark tea, wine, or brandy, and a more nourishing diet, as beef tea, should be had recourse to. A strip of blistering plaster, applied around the edges of the inflamed surface, is praised by some eminent physicians to arrest its further progress, and for the same purpose, a strong solution of lunar caustic, or the stick dipped in water, applied around the inflamed surface, has been equally lauded by others.

The tincture of iodine applied around the border of the inflamed surface, extending about one inch over the sound skin, and repeated daily, if necessary, will often arrest the further progress of the disease. The ordinary external applications in cases of erysipelas, are wheat or rye-flour, or any other unirritating powder dusted over the part, raw cotton, a weak solution of chloride of lime, half a drachm to a pint of water, fomentations of flannel, wrung out of a decoction of poppy heads, lard, mercurial ointment, a weak

solution of corrosive sublimate, one or two grains to the ounce of water. Dr. Meigs speaks highly of the application of Kentish's ointment in the erysipelas of new-born infants. He softens the basilicon ointment with spirits of turpentine, and rubs it on the diseased part with the finger.

Velpeau praises as a local application for this disease, a solution of sulphate of iron, one ounce to a pint of water, or an ointment of the same, two drachms to an ounce of lard. Cold water, if agreeable to the patient, and not productive of chilliness, is often useful. During the existence of this disease in its ordinary form, the diet should consist of mucilaginous and farinaceous articles, gradually changed to one of a more nutritious character, when the violence of the disease has passed by, and convalescence has become established.

FAINTING.

This consists in a diminution or temporary suspension of the action of the heart and lungs, with loss of consciousness. Though often occurring suddenly, and without premonition, it is generally preceded by sickness or sinking at the stomach, dimness of vision, shrunk and pallid features, with a weak, rapid pulse. When fainting is complete, the features are pale and shrunken, the surface cool, and the pulse scarcely perceptible. A fainting fit may be of short duration, or continue several hours, in which last it is often difficult to determine whether life is or is not extinct.

Treatment.—In all cases, commence by freeing the throat, breast, and abdomen of all pressure, allow a free circulation of air, lay the person on the back, the head rather lower than the body, and sprinkle cold water on the face. If swallowing can be performed, give cold water, or a few drops of essence of ginger, peppermint, cayenne pepper, or other diffusible stimulants in cold water; apply to the nostrils the fumes of burning feathers, hartshorn, camphor, or cologne. Should the fainting continue, place the feet in a hot mustard-bath, and apply a mustard-poultice, Granville's lotion, or strong ammonia to the calves of the legs, the abdomen, or spine. In some cases of long continuance, where swallowing cannot be performed, injections

of brandy, or any diffusible stimulant in water, as hot as may be considered prudent, become necessary.

FEVER.

In its general acceptation, by fever is understood that state or condition of the system, in which the natural functions of one or more of the organs of the body are deranged. The most common and striking effects produced by fever are, a hot, dry skin, an increased frequency of pulse, with variation as to strength or fulness, with a disinclination for food as a general rule.

FEVER, INTERMITTENT, AGUE AND FEVER.

A regular paroxysm of this disease, composed of a cold, a hot, and a sweating stage, generally commences with pain in the head and loins, weariness, coldness of the extremities, and along the spine, frequent yawning and gaping, or sighing. The tongue is furred, there is a bitter taste in the mouth, with at times nausea, or vomiting. This is followed by shivering or shaking of the whole body, the teeth chatter, the face, lips, and nails become blue, the features shrink, the respiration is hurried, and the pulse frequent and oppressed.

After this, the skin becomes dry and hot, the face flushed, with more or less pain in the head, great thirst and throbbing of the temples; the pulse becomes full, strong, and frequent. After some time, a moisture breaks out upon the skin, followed by a profuse perspiration. The above symptoms gradually subside, and the paroxysm is over, the patient in a short time feeling as well as ever. Intermittent fever usually returns at stated periods, generally with marked regularity, and is therefore called quotidian, tertian, or quartan, depending upon the time intervening between the attack.

Treatment.—As a general rule, it is better to commence the treatment of this disease with an emetic of ipecacuanha, or tartar emetic, the last generally preferable, especially if there be nausea, a furred tongue, offensive breath, and a bad taste in the mouth. A few hours after the emetic has been given, give a dose of calomel, or blue mass, combined

with rhubarb and ipecacuanha. If time will allow, it is best to administer the above dose at bedtime, and follow it up the following morning with salts and magnesia, or strong senna tea, in one large dose, or smaller ones repeated every one or two hours, until the bowels have been freely acted on. Occasionally, it becomes necessary to administer quinine with the purgatives, the severity of the case not allowing any delay. The condition of the stomach being improved, as shown by a clean tongue, absence of bad taste in the mouth, or nausea, quinine should be given in doses of two to six grains every one or two hours, until from twenty to forty grains have been taken, when it may be discontinued until the next day, and then resumed in similar doses, at similar intervals. Attention being paid to preserve the secretions of the liver, stomach, and bowels in a healthy condition, by the daily administration of some mild medicine, the above plan will rarely fail to prevent a return of the paroxysm. A good substitute for quinine, where it cannot be procured, and a most excellent vehicle in which to give it, is the bark and snake-root tea, in the dose of a wineglassful every one or two hours.

In obstinate cases, Fowler's solution of arsenic is a valuable remedy, frequently succeeding after the failure of other articles, even quinine. Dose, ten to fifteen drops, two or three times a day. Piperine, the active principle of black pepper, is highly esteemed by some, and may be advantageously combined with quinine, opium, oil of black pepper, and occasionally small doses of blue mass.

A strong decoction of the bark of the willow, drank freely, has been used successfully in intermittents.

Common charcoal, two or three teaspoonfuls, several times a day, is advantageously combined with quinine, in cases attended with slight derangement of the stomach, and bowels.

The prussiate of iron, in doses of five to ten grains, four or five times a day, has proved successful in this disease. Larger doses may be given, but are apt to produce unpleasant sensations in the head. It may be given in pills, with ext. of liquorice, or made into a mixture with powdered gum Arabic, liquorice, and water. In obstinate cases, which

have resisted all the usual remedies, small doses of strychnia, *one-twentieth* of a grain, very gradually increased, have been found successful.

When symptoms of a return of a paroxysm of intermittent fever show themselves, they may frequently be arrested by giving a large dose of laudanum, forty to sixty drops, covering the patient warmly in bed, and making him drink freely of hot lemonade, flaxseed, chamomile, or bone-set tea.

During the existence of this disease, it is important to keep the stomach and bowels in a healthy condition, with moderate doses of rhubarb and magnesia, or a pill of blue mass, rhubarb, and ipecacuanha, which last is especially useful, where the functions of the liver are not performed in a healthy manner.

Between the paroxysms of this disease, the stomach and bowels being in a healthy state, and no determination to the head, or other important organ, existing, a generous diet, with a moderate allowance of porter, ale, or wine, may be permitted.

It is proper to continue the quinine, bark, and snake-root tea, or whatever other medicine has been given, for at least a week or ten days after the disappearance of the disease, so great is the tendency to its recurrence; for the same reason, every effort should be made to avoid those causes likely to produce it, as over fatigue, exhaustion of all kinds, exposure to sudden changes of the atmosphere, remaining in wet clothes, avoiding the night air, and above all not to go to work early in the morning without having partaken of a warm and wholesome meal.

Persons liable to an attack of ague, and requiring purgatives, should select those of a warming and stomachic character, the preparations of rhubarb being preferable.

Very singular cases sometimes occur, of this disease attacking one-half, or one particular part of the body, recurring with great regularity; the remedies should be the same as in ordinary cases.

FEVER, REMITTENT, OR BILIOUS.

Preceding an attack of this disease, the patient usually

feels heavy and languid, with headache, frequent yawning, and alternate fits of heat and cold. On its accession, there are pains in the head, back, and limbs, a flushed face, the eyes are injected and watery, the skin hot and dry, great thirst, and tenderness at the pit of the stomach, increased on pressure, are generally present, the tongue is furred, there is a bitter taste in the mouth, which is clammy, or dry. The eyes and skin are generally of a yellow tinge, the urine high-colored, and the bowels torpid. Nausea, and vomiting of bilious matter occur, the pulse, at times, hard and full, often frequent, small, and irregular. These symptoms continue for some time, when a remission takes place accompanied with moisture on the skin, a partial or total disappearance of fever, and the patient feels much relieved, but in a few hours the same symptoms recur, although the chills may not be so well marked. These remissions occur at irregular periods, and are variable in their duration.

Treatment.—The fever being high, the pulse hard and full, with considerable pain in the head, general bleeding is of importance, and often requires to be followed by cupping or leeching the forehead, temples, or back of the neck. If general bleeding is not considered admissible, cupping or leeching may be resorted to with the happiest effects, and the general strength not be affected by the local loss of blood. The tongue being furred, with nausea or vomiting, an emetic should then be given of tartar emetic alone, or of ipecac. with a grain of tartar emetic. At the expiration of a few hours, a dose of calomel or blue-pill, eight to ten grains, with half a grain of ipecac. should be given, followed in four to six hours by a moderate dose of salts and magnesia, or senna tea, every two hours, until the bowels shall have been freely opened. Frequently a copious injection of salt and water will answer equally well, and in some cases better. As long as the discharges continue dark and offensive, it will be proper to give an occasional purgative in small doses.

Cutting the hair close, and applying to the head cloths wrung out of cold water, or bladders filled with pounded ice, will be found of service where much pain or uneasiness

exists in the head. At the same time, the feet may be placed frequently during the day in a hot mustard bath, mustard poultices applied to the calves of the legs, and, when the skin is hot and dry, sponging the whole body with cold water, will be found grateful and beneficial. Where there is great heat and dryness of the skin, one grain of tartar emetic, and one tablespoonful of Epsom salts, dissolved in four tablespoonfuls of water, and given in the dose of a teaspoonful every hour, will be found serviceable. Or the following may be used: tartar emetic, one grain; saltpetre, forty to sixty grains, dissolved in six tablespoonfuls of water. Dose, one teaspoonful every hour. An occasional Seidlitz or soda powder may also be given advantageously. In the latter stages of this disease, blisters applied to the calves of the legs, or inside of the forearms, or both, are of benefit; and when in the low stages of this and other fevers, the tongue becomes dry, of a brown or black color, and, as well as the teeth and gums, covered with a dark sordes, we may give, with benefit, three or four grains of the ioduret of potash, in one or two tablespoonfuls of water, or camphor-water, every three or four hours. The diet, during the first stage of this disease, should consist of diluents, as barley or rice-water, toast-water, flaxseed tea, and weak lemonade; but when the violence of the symptoms has passed by, and debility, with nervous symptoms ensue, sago, arrow-root, chicken, or beef broth become proper, and should be given in small quantities, repeated frequently. As soon as the fever has subsided, quinine alone, or in an infusion of bark, should be given every one or two hours. The room should be kept cool and well-aired, and the body and bed linen daily changed. Convalescence being fairly established, a gradual return to animal food should be allowed, and when to be procured, the soft part of oysters is both nourishing and easily digested. Exercise in the open air should be cautiously engaged in for fear of a relapse, which is frequently more severe than the primary attack.

FEVER, SCARLET, SCARLATINA.

A highly contagious febrile disease, attended by a rash

and sore throat, rarely occurring twice in the same person. Scarlet fever is generally divided into three varieties, scarlatina simplex, where there is a rash or eruption, with little or no affection of the throat; scarlatina anginosa, where the throat and skin are both affected; scarlatina maligna, where the throat is principally and violently affected, attended often with great irregularity, or a sudden disappearance of the eruption.

In proportion to the violence of the disease in the throat, is the danger of fatal consequences to be apprehended.

Symptoms.—The first thing complained of in the majority of cases, is a soreness of the throat, stiffness of the neck, with weariness, chilliness or shivering, languor, headache, bloodshot eyes, at times nausea and vomiting, succeeded by fever, and occasionally delirium. The pulse is frequent and excited, and the skin dry and hot. The back part of the mouth is red, or at times of a dark claret color, frequently covered with whitish specks, gray aphthous crusts, or a sloughy kind of ulceration, caused by the falling off of the crusts.

In scarlatina simplex, and anginosa, the tongue is at times covered from the commencement, with a thick, white, cream-like fur, with projecting red papillæ, the edges being of a bright red color; the red points gradually increase, the fur or coating cleans away, and the whole surface of the tongue becomes red, and raw, like a piece of beef; frequently, when the disease is of an unpromising appearance, it will become dry, brown, and hard.

In scarlatina maligna, the rash is apt to come out late and imperfectly, fading or receding, frequently not appearing at all; instead of a bright red color, it presents a bluish, or livid tint, the pulse is feeble, the skin cold, the tongue dry, brown, and tremulous, debility extreme, the throat ulcerated, at times gangrenous, the respiration impeded by the tough, viscid mucus which collects about the fauces, and a typhoid depression of the whole system, occasionally ending fatally with rapidity.

The difference between scarlet fever and measles, is, 1st. The presence in measles, at the onset, of catarrhal

symptoms; the sneezing, cough, and running of the eyes and nose, preceding the rash, while rather later in scarlatina, and subsequent to the eruption, there is occasionally only running from the eyes.

2d. By the absence in measles, of severe inflammation of the throat, which is almost always present in scarlatina, and invariably so in severe cases.

3d. By the character of the eruption, that of measles being more elevated above the surface than in scarlatina, and of a darker color, that of measles being similar to the color of a raspberry, while that of scarlatina is strictly of a scarlet color.

4th. In measles, the eruption is collected in semilunar clusters, with interstices of healthy skin, while in scarlatina, it commences in minute points, quickly becoming so numerous and crowded together, that the surface appears universally red, which is deeper about the groins and flexures of the joints.

Lastly, the rash of measles, in its most regular form, appears on the fourth day, and that of scarlatina on the second or third.

Treatment.—In mild cases, with little or no affection of the throat, keeping the bowels gently open by some mild medicine, confinement to bed, or the chamber, a strict farinaceous diet, and mucilaginous drinks, slightly acidulated, bathing the feet in hot water at bedtime, and avoiding exposure to draughts of cold air, will generally succeed in effecting a cure. Should the tongue be furred, and the head painful, three or four grains of calomel or blue mass, with half to one grain of ipecac., may be given at bedtime, followed the next morning by a dose of castor oil, senna tea, rhubarb and magnesia, or salts and magnesia. Upon examining the throat, always to be carefully done, if soreness, redness, and difficulty of swallowing exist, a few leeches should be applied to the angle of the jaws, or, if that be not considered necessary, the throat must be frequently bathed with a stimulating liniment, as soap liniment, spirits of camphor and hartshorn, spirits of turpentine, or the volatile liniment, to either of which, a portion of laudanum may be added, the throat being afterwards covered with a strip of flannel.

FEVER, YELLOW

This disease is ushered in by languor, loss of strength, chilliness or rigors, flushed face, intense pain in the head and back, soreness, and great weakness of the lower extremities, followed by a violent fever; the eyes are dull, heavy, injected, and intolerant of light, the tongue furred and moist, becomes dry, black, and at times deep red; the pulse varies considerably, sometimes quick, full, and strong, at others, quick, weak, and irregular. The skin is hot and dry, the thirst excessive, and the stomach irritable, at times to such a degree, that the smallest quantity of the blandest fluid will be thrown up, and constant retching is often present. This is a prominent feature of the disease, frequently augmenting its danger, and the difficulty of treatment. The vomiting, which often occurs early in the disease, is obstinate, at times of bilious matter, at others of a glairy fluid, which adheres in small flakes to the sides of the vessel. As the disease advances, the symptoms become still more serious, the skin, at times more or less yellow, assumes a livid or leaden hue, an oozing of blood occurs from the nostrils, mouth, and bowels; delirium occurs, the urine becomes high-colored, small in quantity, or totally suppressed; the discharges from the bowels have a tarry appearance, vomiting occurs still more frequently, the matter ejected presenting often the appearance of coffee-grounds, or a dark grumous mass, and this constitutes black vomit. These last symptoms occurring together, the case may be regarded as almost hopeless, and death not far distant.

Treatment.—The violent headache in the commencement, which I believe is of a purely nervous character, suggests the propriety of free bleeding; experience, however, has proved, that except in those cases where there is an evident and powerful determination of blood to the brain, or other important organ, with a hard, full, or oppressed pulse, when it may prove serviceable, it should not be resorted to. The local abstraction of blood by cupping or leeching the temples, back of the neck, or region of the stomach, though not often absolutely demanded, is more generally to be depended upon, and while relieving the local engorgement,

will not so materially affect the strength of the system, and various organs, which the disease itself is found to depress almost beyond the power of recuperation. Hot mustard foot-baths, frequently repeated, should be resorted to as soon after the attack as possible, and these should be followed by large emollient poultices to the calves of the legs and soles of the feet, to endeaver to produce perspiration, and equalize the nervous and circulatory systems. Soon after this, a few grains of blue mass, six to ten, are given in pills, although some prefer an equal quantity of calomel. Oleaginous, or salt and water injections to produce free discharges from the bowels, is an admirable remedy, and, while some rely principally upon them, others are partial to a full dose of castor oil, taken a few hours after the pills, to produce the same effect, and frequently with it conjoin the use of injections. By some, the saline cathartics, as salts and magnesia, or one or more Seidlitz powders, are preferred to the oil, at the same time giving freely iced flaxseed tea, gum-water, or elm-bark infusion, sweetened, and made more agreeable and palatable by the addition of lemon-juice, or slices of fresh lemon. Irritability of the stomach will often be relieved by applying a large mustard poultice to the abdomen, and when removed, supply its place by a spice plaster. The pain in the head is generally relieved by soaking the feet in hot mustard water, applying afterwards mustard or garlic poultices to the soles of the feet, and also to the back of the neck, extending down the spine, eight or ten inches. Sponging the head with ice-water, applying bladders of pounded ice to it, giving a warm bath, or sponging the body with tepid vinegar, or cologne and water, will often prove comfortable to the patient. To assuage the thirst, which is excessive and distressing, small pieces of ice held in the mouth, and allowed to dissolve and trickle down the throat, will be found of service, and may be used with freedom. Should the patient desire an occasional drink, small quantities at a time, of iced gum-water, or flaxseed tea, may be allowed, and, during the violence of the disease, should alone be taken.

It is a matter of absolute necessity to prevent or overcome that irritability of the stomach, so constant and dangerous

a symptom of this disease, and for this purpose, too much care cannot be observed in regard to the quantity of the simplest fluid taken at any one time, and how much more important to abstain from over medication. Should the powers of life begin to fail, more nourishing food, as beef tea, or essence of beef, cordials, stimulants, and tonics, with quinine, become necessary. To allay vomiting, blisters to the stomach and calves of the legs, with teaspoonful doses of powdered charcoal, will sometimes prove successful. Where hemorrhage, or oozing of blood occurs, with depression of the vital powers, small quantities of tannin, in brandy, frequently repeated, by the mouth, as also by injection, will sometimes produce good results. Creasote, in small quantities, has been successfully given to check obstinate vomiting, and also to remove hiccough.

HEADACHE.

This common complaint, frequently sudden in its approach, is produced by various causes, the most usual being indigestible food, an excess in quantity, or sedentary occupations, with want of exercise.

Treatment.—For mild cases, the following remedies will generally prove successful:—Bathing the head or temples and forehead with cold water, cologne water, spirits of camphor, or the eau sedative of Raspail. One teaspoonful of supercarbonate of soda or calcined magnesia, in a little water, will generally afford relief, more especially if acidity be present. A mild cathartic, as rhubarb, magnesia, senna and salts, or one or more Seidlitz powders will frequently succeed. A small quantity of aromatic spirit of ammonia, or spirit of hartshorn often affords immediate relief. If bilious derangement exists, five to eight grains of blue mass, followed by a dose of rhubarb and magnesia, or magnesia and milk of sulphur, will prove serviceable. In severe cases, if nausea or a disposition to vomit exists, an emetic should be given, and one of ipecac., or mustard and salt, is to be preferred, and should be followed by a mild laxative. A cup of strong tea, or coffee, are household remedies of no trifling value in some severe cases. When symptomatic of other diseases, bleeding from the general system, or locally, by cups or

leeches, will be required. A mustard poultice between the shoulder-blades, and a mustard foot-bath will always be of service.

In obstinate and long-continued cases, or in those accustomed to repeated attacks, the following will frequently succeed. The nitro-muriatic acid foot-bath at bedtime for weeks. Due attention being paid to the digestive organs, Fowler's solution in doses of ten drops, three or four times a day, has often cured after other remedies had failed. A quarter of a grain of sulphate, or acetate of morphia, in a little sugar and water, will sometimes immediately relieve the most intense headache. A combination of bitters, purgatives, and narcotics, will cure chronic cases.

In all cases, it is highly important to attend to keeping the bowels regular, and for this purpose, chewing a small piece of rhubarb root, every night or morning, will frequently cure a headache of long standing.

In nervous headache, from ten to thirty drops of tincture of nux vomica, three times a day, will often effect a cure.

HEARTBURN.

This is most frequently attendant upon, or symptomatic of indigestion or dyspepsia, and other diseases of the stomach, though it may and does proceed from improper food, or an over indulgence in that which is otherwise healthy. There is a burning sensation in the stomach, throat, and mouth, and frequently a discharge of fluid from the stomach, so acrid and sour as to set the teeth on an edge, and make the throat and mouth burn and feel sore.

Treatment.—One or two teaspoonfuls of calcined magnesia, or a teaspoonful of supercarbonate of soda, in a tumbler half full of cold water, or two or three tablespoonfuls of lime water, in an equal quantity of milk or water, or a few drops, five to ten, of liquor potassæ, in a wineglassful of water, may be given with a certainty of producing temporary though immediate relief, by neutralizing the acid. A few drops of elixir of vitriol, or of sulphuric acid, in a wineglassful of water, will often succeed. In persons subject to heartburn, eating eight or ten blanched almonds

after each meal, will often prevent its occurrence. In cases depending upon dyspepsia, or debility of the stomach and general system, great attention to diet, the use of mild tonics, as bark and snake-root tea, extract of gentian, or chamomile, quassia, or chamomile tea, keeping the bowels regular by a daily injection of cold water, regular exercise, and friction with a coarse towel or flesh brush, after sponging the body every morning with cold salt and water, are necessary to remove the cause upon which this may depend.

HEMORRHAGE.

By hemorrhage is understood the loss of blood from the system, whether resulting from an injury, or caused by morbid action in any part, eventuating in the rupture of a bloodvessel, or the oozing of blood through one of the tissues of the body. When the blood is of a bright scarlet color, escaping by jets, it is from an artery, and when it flows in an even, unbroken stream, of a dark red or purple color, it is from a vein. Pressure, properly applied, is the surest mode of arresting hemorrhage, and unless the artery from which the blood flows be so large as to require being tied, will generally succeed. The simplest mode of making pressure is to place a compress of linen, or muslin, six or eight thicknesses, of the proper size, upon the part, and apply a roller or bandage over it sufficiently tight. The *tourniquet* is an instrument made for that purpose, and is especially useful in cases of profuse hemorrhage from the arteries of the extremities, as it completely arrests the circulation in the part, and thus enables the surgeon to procure the requisite instruments for tying the artery.

When the regular tourniquet is not at hand, a very excellent temporary one is made as follows: Pass a handkerchief around the limb, tie the two ends together in a hard knot, place a thick compress over the main artery, and with a penknife, key, or piece of stick, passed under the knot, continue turning the ends of the handkerchief around, until the bleeding has been arrested, when the stick must be firmly secured in its position.

HEMORRHAGE FROM LEECH-BITES.

Although of rare occurrence, great difficulty is at times experienced in arresting the discharge of blood after the falling off of leeches, and as in very young children, or those of infirm and debilitated habits, such an event may and has proved fatal, the following local applications are to be used:—

A fine powder of gum Arabic, starch, charcoal, sugar of lead, alum, catechu, kino, or nitrate of silver. A few drops of muriated tincture of iron.

A portion of felt from a hat, with gentle and permanent pressure, or applied as follows, as recommended by Dr. Houston. Apply the felt over the bites, and then spread over it a piece of thin muslin, drawing this tightly, in order that the blood exuding must pass through both. With a sponge remove the blood, as it oozes through the muslin, and, in a short time, the muslin and felt will become dry by the coagulation of the blood, and the bleeding will be permanently arrested. The muslin may in a few hours be cut off around the adhering part, which, in a few days, will drop off, and the wound or bite be perfectly healed.

The glazed surface of a visiting card, cut round, and firmly applied for a few minutes, has succeeded after the failure of other means.

A piece of cotton, saturated with a hot solution of alum, firmly applied to the bites, may be employed.

A stick of lunar caustic, cut into a fine point, and introduced into the bites, is very effectual. Collodion is an excellent application.

HEMORRHAGE FROM THE LUNGS.

This hemorrhage, though at times appearing very suddenly, without premonition, is most frequently preceded by one or more of the following symptoms: A tickling, uneasy sensation in the trachea, larynx, or windpipe, causing a slight hacking cough, followed by more or less blood; a sensation of fulness, weight, tightness, heat, and oppression in the breast. The pulse is most frequently hard and full,

with headache, flushed cheeks, and general febrile symptoms. Frequent returns of slight hemorrhage from the lungs are often the precursory signs of consumption, and, in all cases, its first appearance should be attended to, and such a course of proceeding, as regards diet, exercise, and remedial measures, adopted, and rigidly persevered in, as may be calculated to prevent its recurrence, and remove any local or constitutional effects. To use the language of Dr. Howard, "*It is the duty of the physician to act in every case of hemorrhage from the lungs, as if danger was to be apprehended.*" It is acknowledged, that occasional bleedings from the lungs may occur in robust individuals, without leaving any injurious impression, and many cases have been known of periodical hemorrhages from the lungs and other parts of the body, continued through a long life without manifest injury to the constitution. These, however, should be regarded as exceptions. It is certain that, as a general rule, they should be looked upon as the symptom of a dangerous disease, showing clearly such a morbid condition of the lungs and general system, that but little is required to set in action those hidden causes of a regular, though slowly progressive decrease of strength, change of complexion, inability to endure accustomed exercise, followed by tubercles, confirmed consumption, and death, unless early opposed by proper remedial measures.

Treatment.—It is important in hemorrhage from the lungs of a severe character, first, to elevate the head and shoulders, loosen the clothes, and allow the free entrance of fresh air, the body being sufficiently protected. Let the patient keep quiet, avoid speaking, and, as much as possible, restrain the disposition to cough. He should swallow one or two teaspoonfuls of common salt dissolved in a little water, or, taking the salt in his mouth, allow it gradually to dissolve, and slowly trickle down the throat. This popular remedy in hemorrhage from the lungs, deservedly highly esteemed, should be frequently given, and will rarely fail to check the bleeding, for a time at least. Place the feet in a hot mustard foot-bath, and allow no other nourishment than water, gum-water, rice-water, or flaxseed tea, as cold as possible. Small pieces of ice may be frequently held in

the mouth. In those cases where the pulse is full and strong, particularly in robust individuals, bleeding from the arm, or locally by cups, is necessary, and where the loss of blood is not considered necessary or advisable, or has been carried as far as the symptoms will admit, the free application of dry cups to the breast, by their powerfully-revulsive effect, will be of service. A combination of sugar of lead, three to five grains; powdered opium, half to one grain; and ipecac., one grain, repeated every one or two hours, will prove serviceable in this disease. Large doses of saltpetre, one to two drachms, dissolved in water, three or four times a day, is strongly recommended. As a cooling laxative, the saline draught, combined with saltpetre and digitalis, is much used, the violence of the symptoms having been subdued. In those predisposed to bleeding from the lungs, it is advisable, upon the first appearance of symptoms indicating an attack, to lose blood, either generally or locally, to keep the bowels open by saline laxatives, or injections, and to take small doses of saltpetre, or the powder of sugar of lead, opium, and ipecac., above noticed. Mustard poultices, or blisters to the lower extremities, are useful auxiliaries. Powdered ergot, in ten-grain doses, every two or three hours, will sometimes succeed after the failure of other remedies, and may be continued for one or two days, or until the bleeding shall have ceased. The oil of turpentine will often act promptly and efficiently in cases unattended by great excitement, or febrile symptoms, which should be previously removed. From ten to twenty drops, or, in cases of feebleness and paleness of the surface larger doses may be given, and repeated every hour or two. Mere frequency of pulse does not contraindicate the use of turpentine.

In passive hemorrhages from the lungs, the different astringents, the mineral acids, oil of turpentine, the preparations of Peruvian bark, and iron, with an unirritating but nutritious diet, will be found of great service, and, in many cases, the only means of cure.

In hemorrhage from the lungs the diet must be varied according to the character and stage of the disease, and condition of the system. When active and in the early stage,

the mildest mucilaginous and farinaceous drinks should alone be allowed. When convalescence has commenced, or the system is much debilitated, food of a more nutritious character, with at times a cold infusion of a mild tonic, will be required. To prevent a return of the hemorrhage, the greatest attention must be paid to clothing, diet, and exercise in the fresh air in the proper weather, and at proper hours, on foot, horseback, or in a carriage, while an entire avoidance of stimulating or heating food or drink, and sudden or violent exercise must be guarded against. A long sea voyage will occasionally be productive of permanent benefit, as well from the salt atmosphere as from the perfect state of repose which may be enjoyed without a deprivation of pure fresh air.

HEMORRHAGE FROM THE NOSE.

This often occurs as an effort of nature, to relieve or prevent the injurious consequences apt to follow a determination of blood to the head, or as a substitute for some natural periodical discharge which has been suppressed. In febrile diseases, with a determination to the brain, it occasionally occurs, and unless excessive in quantity, producing great debility, should not be arrested.

When of an active character, it is generally preceded by local heat, fulness in the head, itching in the nostrils, tension and pain in the forehead, giddiness, headache, buzzing in the ears, cold hands and feet, though occasionally it occurs without these premonitions. The hemorrhage may issue by drops, or in a full stream, from one or both nostrils. When unattended by constitutional symptoms which it may relieve, as fulness or pain in the head, or when not vicarious to some more dangerous disease, efforts may properly be made to arrest it.

Treatment.—Frequently little is required to be done; cases, however, do occur where the loss of blood is very great, much difficulty is experienced in arresting it, and death may result from it.

Bathing the face and head in cold water, snuffing it up the nostrils, the sudden contact of any cold body, as a key, a piece of ice, or cold water, to the back of the neck, lower

down the spine, or to the genitals, dashing cold water over the abdomen, keeping the head elevated, and the breast and neck exposed to the cold air, will prove sufficient in mild cases.

When the loss of blood is more profuse, and the above fail, the feet should be put into a hot mustard bath, mustard poultices applied to the calves of the legs, soles of the feet, or between the shoulder-blades. Give a dose of salts and magnesia, and injections of salt and water, to operate quickly on the bowels. In some cases, with a hard, full pulse, and much pain in the head, it is necessary to bleed from the arm, or by cups to the back of the neck. The quantity necessary to be drawn must depend upon the condition of the individual; a decided impression should, however, be made. Astringent remedies are at times demanded internally, and one of the following powders may be given every hour or two, or more frequently if required. Sugar of lead, twenty grains; powdered opium, two grains; powdered ipecac., five grains, made into six powders.

In some cases, before a cure can be accomplished, it will be necessary to administer mercury with or without opium, in frequently-repeated doses, in order to affect the system.

At times the application of a blister to the back of the neck will produce an immediate good effect.

The mechanical remedy of plugging the nostril from which the bleeding proceeds, has often to be resorted to, and when the loss of blood is excessive, should not be delayed too long. A dossil of lint or cotton, rolled loosely in the shape of a quill, saturated with a solution of alum, saltpetre, or sugar of lead, then covered with powdered gum Arabic, bark, charcoal, or other fine powder, should be gently introduced up the nostril.

Abernethy adopted the following plan for the same purpose. He used a probe with lint moistened and covered with a fine powder, which was passed gently along the floor of the nose for its entire length, and then carefully withdrawing the probe, allowing the lint to remain in three or four days. A quill will answer as well as the probe.

HEMORRHAGE FROM THE STOMACH, VOMITING OF BLOOD.

An attack of this disease is often preceded by loss of appetite, and a feeling of depression or fulness of the stomach, attended by pain on pressure, general uneasiness or chilliness, and subsequent heat of surface. These are followed by dizziness, paleness of the face, faintness, nausea, depression of the pulse, and vomiting of blood, generally mixed with particles of undigested food. The system is sometimes greatly depressed by the sickness and loss of blood, evinced by the cold and bloodless condition of the skin, and smallness of the pulse, at times scarcely perceptible. When the hemorrhage is copious, it may be red and fluid, though in general it is thrown up more or less coagulated, in irregular lumps, mixed with the contents of the stomach, and of a blackish color. The mouth and fauces should be carefully examined, to ascertain whether the bleeding does not proceed from those parts, and being swallowed, is subsequently vomited up.

Treatment.—In hemorrhage from the stomach, or vomiting of blood, placing the patient in bed, keeping him composed in mind and body, allowing a free circulation of air, swallowing small quantities of ice-water, or pieces of ice, and at the same time a few teaspoonfuls of a strong solution of common salt, or a teaspoonful of dry salt put into the mouth occasionally, and allowed slowly to dissolve, and pass into the stomach, will, in mild cases, generally prove successful. If the pulse be full and hard, bleeding from the arm becomes necessary, and if much tenderness or pain exist in the region of the stomach, cups or leeches should be applied to the abdomen, followed by a mustard poultice or blister. Give a mustard foot-bath, and apply poultices of mustard to the calves of the legs, or soles of the feet. Small portions of sugar of lead conjoined with opium and ipecac., two to five grains of lead, one-half to one of opium and ipecac., repeated every fifteen or twenty minutes, or hour, according to the violence of the symptoms, are always useful. Alum, kino, catechu, three to five grains of either, or a few drops, five to ten, of elixir of vitriol, or the muri-

ated tincture of iron, frequently prove of service in severe cases. From ten to thirty grains of saltpetre, dissolved in a small quantity of water, may be given every half hour, or hour, for four or five times. In many cases, particularly if much nausea, or frequent efforts to vomit exist, an emetic of ipecac. may be advantageously given. A few drops of oil of turpentine and laudanum, suspended in mucilage, is an excellent remedy, as is also one or two drops of creasote, given in the same manner. In many cases, with evident signs of biliary derangement, one or more small doses of calomel, or blue mass, will prove advantageous, and may be followed by a Seidlitz powder, or one or two teaspoonfuls of Epsom salts, unless the stomach is very irritable, when injections will be more proper. These will most generally be required after the cessation of the hemorrhage. Cold mucilaginous or farinaceous drinks should alone be allowed during the severity of the disease, unless great debility attends, when more nutritious articles may be cautiously given in small quantities at a time, and even wine-whey, milk-punch, or jellies, may be required. In convalescence from this disease, great attention should be paid to the diet, both as regards quality and quantity, as well as to the importance of keeping the bowels regularly open by some mild saline aperient, if necessary. Attention to proper clothing, erring on the safe side of being rather too warm than to suffer chilliness, and an avoidance of exposure in raw, damp weather, should be rigorously observed.

HEMORRHAGE FROM THE URINARY ORGANS.

This hemorrhage, manifested by a discharge of blood from the urethra, pure, or mixed with urine and mucus, generally depends upon inflammation of some portion of the mucous membrane lining the urinary organs, though it may proceed from the kidneys, ureters, bladder, or urethra. The discharge of blood is often preceded by uneasy sensations of irritation, or inflammation of the part affected, at times without pain, at others great and frequent efforts to urinate, with a bearing down, and great heat and pain at the neck of the bladder and along the urethra. A feeling of distension and weight above the pubis, and other symptoms

of retention of urine, may proceed from a coagulum of blood in the bladder.

Treatment.—When the symptoms are severe, bleeding from the arm, cups to the loins or abdomen, or leeches to the perineum, or over the region of the bladder, with absolute rest, cold mucilaginous drinks and emollient poultices, or stupes of flannel wrung out of hot water, are to be resorted to. If the bleeding is profuse, ice, or ice-water, to the pubis, and injections of cold water with laudanum are proper, and will generally afford relief. In some cases, small and repeated doses of sugar of lead and opium, or Dover's powder, and injections of laudanum, will be required to relieve the distress and pain.

A saline laxative, or injection, is often of service, especially if the bowels are constipated. In chronic cases, a few drops of oil of turpentine, or balsam copaiva, with laudanum in mucilage, often prove of great service. An infusion of buchu, or uva ursi, is often advantageously used as a common drink. Injections into the bladder several times a day of mild astringent infusions, have been strongly recommended.

HEMORRHOIDS, PILES.

By hemorrhoids is meant one or more tumors, inside or outside of the rectum, with or without hemorrhage; or there may be hemorrhage without a tumor. The disease consists in a morbid enlargement of the hemorrhoidal veins.

The most frequent causes of this painful complaint are free living, a sedentary mode of life, the frequent use of aloetic purgatives, and, above all, habitual constipation. Hemorrhoidal tumors are generally supposed to arise from a varicose state of the hemorrhoidal veins, first formed within the intestine, and afterwards protruded by various causes, most frequently straining at stool. Bleeding piles are those attended with a discharge of blood, and blind piles, those where hemorrhage does not occur.

Treatment.—Regulating the bowels, so as to remove the constipation usually existing, is of primary importance in the treatment of piles. For this purpose, the mildest laxatives should be selected, as castor-oil, cream of tartar

and sulphur, magnesia and sulphur, and especially the confection of senna, with or without magnesia and sulphur, which may be regarded as one of the best. A diet of rye-mush and molasses formed the principal part of the treatment of piles by the late Dr. Physick; and there can be no doubt of its value. The frequent use, at times daily, of an injection of half a pint of cold water often proves of service. Sir B. Brodie thought highly of the confection of black pepper as a remedy in piles, given internally, and applied externally to the parts. The free use of cold salt-and-water, as a wash, after every evacuation, should never be neglected. Thirty or forty grains of balsam copaiva, or spirits of turpentine, three or four times a day, will sometimes effect a cure. Twenty or thirty grains of powdered cubebs given three times a day is often successful.

Among the numerous local applications, the following are the best. Placing some rosin on live coals in a shovel, and sitting over the fumes. Tar-water, or tarred rope soaked in water. Five to ten grains of nitrate of silver, finely powdered, and intimately mixed with one ounce of lard. An ointment made by mixing two or three drachms of powdered galls, ten or fifteen grains of powdered opium, and one ounce of stramonium ointment, is very good.

For old cases of piles, Lisfranc orders a mild diet, gentle exercise, shower-baths, and cold-water injections. He also passes over the surface the nitrate of silver, to excite, and not to cauterize.

In those cases where profuse bleeding occurs, the mineral and vegetable astringents should be used locally, taking care not to have them too strong. The iodide of iron, and creasote, are of great value, as also powdered alum. A plug of old linen is often successfully introduced up the rectum.

Should the hemorrhage, as is sometimes the case, be excessive, injections of cold water, or lead-water, must be used; and at times small doses of sugar of lead, and opium, become necessary.

HICCOUGH.

A convulsive inspiration caused by a spasmodic affection

of the diaphragm, which most generally depends upon nervous or other irritation of the stomach. Occasionally, it proves distressing from its long continuance, and, when occurring at the latter stages of severe diseases, may be regarded as a dangerous, and frequently a fatal, symptom.

Treatment.—A glass of cold water, holding the breath while swallowing it, will often remove it, as will also taking a full inspiration, retaining the lungs distended as long as possible. In severe cases, the application of dry cups, a mustard poultice, flannel steeped in spirits of turpentine or strong aqua ammonia, to the region of the stomach and the middle of the spine, will generally succeed. Bathing the feet in a hot mustard-bath is an efficient remedy. Laudanum, paregoric, tincture of assafœtida, and sulphuric ether, alone, or combined, are used internally with success. In some protracted cases, it will be found necessary to apply a blister to the abdomen, after having made use of dry cups to that part. A copious injection, to operate upon the bowels, followed by one of an anodyne or antispasmodic character, is at times successful. The oil of amber is at times used advantageously.

HYDROPHOBIA.

This disease, produced by the bite of a rabid animal, generally of the canine species, evidently exerting its principal force upon the nervous system, may be said, after the development of the characteristic symptoms, to bid defiance to the best-directed efforts of physicians. It is sufficiently proved that, of those bitten by rabid animals, scarcely one-half will become affected with hydrophobia, in consequence of the saliva of the animal having been wiped off the teeth in passing through the clothes, before coming in contact with the skin, which must be abraded or torn before the poisonous influence can be communicated. It is stated by Mr. Hunter that, of twenty persons bitten by the same rabid dog, but one suffered from the disease.

A wound inflicted by a rabid animal gradually heals, as if from other causes; and after an interval of from six weeks to twelve months, or, according to some apparently well-authenticated cases, even longer, there is experienced

a pain or uneasy sensation, with inflammation in the situation of the bite or scar, which tingles, aches, or feels cold, stiff, or numb, or becomes livid or swollen, at times opening anew, and discharging a little colored serum. The pain extends from the sore or scar towards the central parts of the body, generally thought to follow the course of the nerves, though cases have been noticed where the absorbents and glands were red and inflamed at the forming stage of the true symptoms.

The symptoms of hydrophobia are an excessive nervous irritability, anxiety and depression, fear, constant sighing and great melancholy, a spasmodic constriction of the muscles of the fauces, throat, and chest, excited by different external influences, especially by the sight of liquids, or the sound produced by pouring them from one vessel to another, or by attempting to swallow them, which is frequently attended by great difficulty, and is often absolutely impossible. A paroxysm will often be produced by a sudden agitation of the air. At the expiration of a few days, the patient becomes hurried in manner, and irritable in disposition; the eyes are haggard, glassy, fixed, and suffused with blood; there is great restlessness, starting up in a fright, almost immediately after lying down, &c.; he complains of pain and stiffness about the throat, is unable to swallow liquids, every effort to do so bringing on a paroxysm of choking and sobbing, which will continue to be repeated more severely each time for several days, when death comes to his relief. The pulse is at first not much affected, though soon becoming hard and strong, then weak and frequent, accompanied by a rapid prostration of strength.

It is supposed that the morbific virus is not immediately absorbed, but remains in a dormant condition in the original wound, until morbid phenomena develope themselves in the part, to be quickly followed by the general symptoms. Too much stress cannot be laid on the necessity of a thorough excision of the wound, and other local treatment, as soon after the bite as possible, or whenever any symptom, local, or general, may manifest itself, and this, irrespective of the time elapsed since the wound or first cause.

It may not be useless to remark, that, in no case, should

the dog be killed, but rather should he be carefully secured; for, if he should die, the bitten person is no better off; and should the disease not occur nor the dog die, what an inconceivable amount of anxiety and terror will be spared to the individual and family. No good can result from killing the dog (except what can be obtained by his strict confinement), and yet that unnecessary act, as far as the bitten person is concerned, is the first thing done. The rabid dog is said, by Mr. Youatt, never to have fits or dread of water, which last he will seek with avidity, and lap for some time, while there exists an inability to swallow, from a paralysis of the muscles of the jaw and throat.

The earliest symptoms of madness in a dog, says Mr. Youatt, whose experience in this disease has been most extensive, are, sullenness, fidgetiness, constant change of posture; a steadfast gaze, expressive of suspicion; a constant licking of some part of his body, on which, most frequently, will be found a scar, where previously bitten; occasional vomiting; a depraved appetite, soon noticed by picking up and swallowing pieces of thread, hair, straw, and often lapping his urine and devouring his excrement. He flies fiercely at strangers, becomes impatient of correction, is quarrelsome with his companions, when chained will make evident efforts to escape, and, if at large, will attack those only who come in his way.

The expression of countenance is early remarkably changed; the eyes glisten; about the second day a considerable discharge of saliva comes on, which continues for ten or twelve hours, and is followed by insatiable thirst. As soon as this flow of saliva has ceased, he appears to be troubled with a viscid matter in the fauces, working hard with his paws to get rid of it.

A loss of power in the voluntary muscles next occurs; the lower jaw hangs down, though frequently the paralysis is not complete. The animal staggers, falling frequently, whereas previously he had been in constant motion. His howl is short and peculiar, and his bark hoarse and unnatural. The respiration is laborious; the inspiration is attended with a singular grating, choking noise. Death generally occurs on the fourth or fifth day.

Treatment.—A great number of articles of the materia medica have been resorted to for the cure of hydrophobia; but many, if not all heretofore used, are useless, as time and failures have conclusively proved. The injection into the veins of different active substances has been proposed and tried by Magendie and others, without any positive cures, though the excessive nervous irritability has been calmed by injections into the veins of a solution of morphia. Were it not for the discovery of chloroform, that powerful controller of nervous action, and which judiciously though heroically used, it is reasonable to believe may prove curative, this injection into the veins would deserve further trials.

Although, when alluding to the curability of hydrophobia, we touch upon debatable ground, there can be no question of the real efficacy of a preventive plan, which it is necessary to enforce rigidly, as soon after the wound as possible. By adopting such a course, and the free use of chloroform, it is more than probable a large number of cures will be reported.

The first and most important remedy with which to commence the treatment, in case the preventive excision has been neglected, is a complete excision of the wound; for, although many persons, bitten by dogs proved to have been mad, do escape an attack, it is never allowable to act upon that presumption. Even in cases where a reasonable doubt may exist, it is important to resort immediately to such an apparently severe remedy, it being preferable to enjoy the absolute immunity afforded by the operation early performed, rather than suffer the torture of the imagination dwelling upon the possible and inconceivable horrors of the disease. Should the bite have been inflicted in a joint, where no positive certainty can exist that all of the poison has been removed by excision, washed out, or the parts thoroughly touched with caustic, amputation alone can be depended upon; and, if no doubt should exist of the rabidness of the animal, this should be resorted to.

After having thoroughly excised the wound or wounds, cupping-glasses should be continuously applied for one or more hours, it having been proved, by experiments, that

the absorption of the most deadly poisons not only cannot proceed, as long as the application of glasses or suction is made, but, that, if continued sufficiently long, the poison will be entirely removed. The experiments of Dr. Barry, and others show—

1st. That the application of cupping-glasses to a poisonous wound will prevent the absorption of the poison, and consequent injurious effects.

2d. That the application of a cupping-glass to a poisoned wound, even after a portion of the poison has been absorbed, and begun to manifest its effects upon the system, will arrest its further progress, and prevent their recurrence, as long as the cup or cups are permitted to remain on the part; and,

3d. That after a cupping-glass has been applied for some time, the parts may be thoroughly washed with soap and water, and all unpleasant consequences avoided.

The bitten part having been completely removed by excision, and the cupping-glasses having been applied for a considerable time, it is necessary to touch every part of the wound with a strong solution of lunar caustic, or pure nitric acid, and then to introduce into the wound a soft ointment of Spanish flies, basilicon, and turpentine, and over all apply a warm bread and milk, or flaxseed-meal poultice, every hour, to produce and keep up free discharges.

The propriety of adopting this prescribed course derives additional value from the fact that, in two individuals bitten by the same dog, no inconveniences resulted in the case where the wound remained open, or would not heal for months; while, in the other, where the wound healed in a short time, the usual symptoms manifested themselves at a future period, eventuating in death.

In cutting out the wound, generally made by one or more teeth, the following directions were given by the celebrated Abernethy—"Cut out effectually the cell into which the tooth has gone, by introducing a wooden skewer, cut in the shape of a tooth, into the cavity formed by it, and then remove the whole by an elliptical incision, cutting all around and beyond the skewer of wood."

The pain resulting from an effectual application of the

remedies above noticed, is very great, to allay which, it is necessary to administer large and frequently-repeated doses of laudanum, or a solution of morphia, by the mouth as well as by injection, the quantity and frequency of repetition necessarily depending upon the effects produced. The use of laudanum in large doses throughout the whole course of the disease, is alone calculated to alleviate the sufferings of the patient, and by many is considered, in a curative point of view, the only remedy worthy of confidence.

An occasional powerful operation on the bowels is strongly recommended by some practitioners; while others insist upon the importance of maintaining a constant free discharge from the bowels, for which purpose a large dose of calomel, followed by one or more drops of croton oil, in sweet or castor oil, or mucilage, and an active cathartic injection of senna and salts, will generally be most likely to succeed.

The continued use of nauseants, as repeated doses of a solution of tartar emetic by the mouth, and tobacco injections, with the view of their relaxing effects upon the system, has appeared in some cases to have proved useful.

The use of mercurial preparations to produce profuse salivation, has received the sanction of many medical men, and a few cases are recorded of cures following such a course.

The frequent employment of a hot water or vapor bath, continued for a considerable time, is asserted to have proved serviceable in hydrophobia, both as a palliative and a curative agent.

In the commencement, as well as in the more advanced stage of hydrophobia, the repeated application of cups to the breast and spine, followed by blisters and counter-irritants, are powerful remedial agents, well calculated to counteract the cause upon which the spasmodic constriction of the muscles of the fauces, throat, and chest depend.

Mr. Youatt strongly recommends large and repeated doses of belladonna, as a palliative and curative, to be used in conjunction with the above means.

There having been observed, in some cases of hydrophobia, a decided intermission of the paroxysm, during which

the patient was free from any unpleasant symptoms, it seems a just inference that the administration of one or more large doses of quinine in quick succession might prove permanently beneficial.

In conclusion, it may be remarked, that, from the recorded cases of hydrophobia, the excision of the wound, the application of cupping-glasses to the wound, as well as to the spine and breast, followed by the most active and permanent counter-irritants, active purgation by drastic cathartics, copious injections, nauseants by the mouth and rectum, large doses of laudanum, and, in the latter stages, stimulants and cordials, are, when the disease has fairly commenced, the principal means upon which reliance can be placed to conduct the case to a successful termination.

INFLAMMATION OF THE BLADDER.

This is indicated by a burning pain in the region of the bladder, pain in the end of the urethra, a frequent desire to make water, the quantity passed being small, with severe spasms, more or less shivering at the commencement, with subsequent hot skin, a hard pulse, the bowels constipated, and great restlessness. As the disease advances, the pain shoots from the bladder to the anus, loins, and down the thighs, there is tenderness of the whole abdomen, with vomiting, hiccough, delirium, and frequently death. The urine is at first high-colored, then mingled with flakes of albumen or blood, and towards the last acquires a very offensive odor.

Treatment.—Bleeding, both general and local, is of importance. A warm bath, an emollient injection, and warm poultices or fomentations to the region of the bladder, being simultaneously resorted to. A full dose of calomel, with one or two grains of opium, must now be given, and followed, in a few hours, by one of oil or salts, with one or more emollient injections, to act freely on the bowels. Iced mucilaginous drinks are alone to be allowed as drink or nourishment, and should complete retention of urine exist, some caution must be observed in the quantity allowed. The use of diaphoretics to determine to the surface, often proves useful; Dover's powder, acetate of ammonia, with

saltpetre, spirits of nitre, and a minute quantity of tartar emetic, being the most certain. During their use, the drinks will act more beneficially if taken warm. A blister, properly timed, after the violence and pain of the disease have been relieved, will frequently be found necessary. For fear of strangury, the blister should be left on only a few hours, or until the skin becomes red, when a warm poultice should be applied, which will succeed in completing the drawing of the blister. Anodyne injections may be used every few hours, or more frequently, if the pain or spasm is severe and persistent. It is frequently necessary to draw off the urine with a catheter, in passing which, great care must be observed, excessive and excruciating pain being caused by it. It has been proposed in certain stages of this disease, to inject into the bladder mucilaginous fluids, and but for the difficulty of accomplishing it, in consequence of the pain, there can be no question of its advantageous results.

INFLAMMATION OF THE BRAIN.

The more severe and characteristic symptoms of this dangerous, though rare disease, are generally preceded by the following sensations or symptoms, which may be regarded as premonitory. They are, general uneasiness and restlessness, a sensation of fulness and weight, or congestion in the head, frequent headache, flushing of the face, an increased heat in the head, intolerance of light, unusual noises in the ears, an impaired memory, and derangement of the digestive organs. These are followed by an intense burning pain in the head, red, shining, and rolling eyes, pupils contracted, throbbing of the temporal arteries, respiration quick, sighing, and irregular, the tongue red and dry, the pulse frequent, hard, and full, sometimes oppressed. In acute inflammatory affections of the ear, the brain is at times secondarily affected, and Sir A. Cooper gives cases of inflammation of the brain resulting from a sudden suppression of long-continued discharges from the ear. In rheumatism, and rheumatic inflammation of the heart, the functions of the brain are, at times, so deranged, as to give rise to the belief of the existence of acute inflammation.

Treatment.—Bleeding is of the utmost importance, and the quantity of blood taken should be sufficiently large to produce a decided impression upon the symptoms, and this should be repeated, as soon as they increase in violence. The hair should be shaved off, to allow the continued use of pounded ice in a bladder, or cloths wrung out of ice-water. The frequent application of leeches to the temples, or cupping the back of the neck and temples, are important remedies. The head should be kept elevated, and the room cool, the feet placed in a hot mustard-bath, followed by mustard-poultices to the soles of the feet, or calves of the legs. A dose of calomel, fifteen to twenty grains, must be given, followed, in two or three hours, by a dose of senna and salts, or salts and magnesia, and repeated every hour or two, until copious discharges from the bowels take place. Frequent large injections of senna tea and salts, or salts alone, in water, are here of importance, to accelerate the operation of the medicine, and produce evacuations as quickly as possible. In the early stage of this disease blisters will prove injurious, but after the violence of the symptoms has been subdued, they may be used advantageously. In general, the blister should be applied to the back of the neck, extending several inches down the back, although it is at times applied to the whole head. Great judgment is required to properly time its application, upon which its proving beneficial or injurious will entirely depend. Throughout the course of this disease, ice-water, gum-water, or flaxseed tea, should alone be allowed for drink or nourishment.

INFLAMMATION OF THE EYE, OPHTHALMIA.

This consists of pain, heat, and redness of the eye or lids, intolerance of light, a flow of tears, at times so acrid as to irritate or excoriate the parts over which it runs, and, when severe, to produce swelling of the lids.

Treatment.—When caused by the introduction of foreign bodies, the eye must be bathed, to wash them out, and should that not succeed, they may be removed with the point of a paint-brush, or a piece of linen rolled and moistened. At times the particles adhere so strongly, that it

becomes necessary to remove them with the end of a lancet or sharp probe. Bleeding is often required, though the local abstraction of blood by leeches, or cups, will be found preferable. The bowels should be freely acted on, by a dose of calomel, followed by repeated doses of salts and magnesia; after which, I have found the following mixture extremely serviceable: Tartar emetic, five grains; saltpetre, one drachm; Epsom salts, and powdered gum Arabic, of each four drachms; orange-flower-water, four ounces. Dose, one tablespoonful every hour, until nausea or vomiting is produced, when it may be given in smaller quantities. Many lotions are made use of in ophthalmia; those generally found to answer best, are the following: Five grains of sulphate of zinc, two drachms of wine of opium, and five ounces of a cold infusion of the pith of sassafras in rose-water, or fifteen grains of the acetate of zinc, mixed in the same manner. The proper mode of using these collyria, is, after having well bathed the eye in flaxseed tea, or infusion of pith of sassafras, to envelope a piece of the soft part of stale bread, in a piece of fine linen; soak this in the flaxseed tea, and pour two or three teaspoonfuls of the eye-water upon it. Lay this pledget or poultice, upon the eye, and retain it there, by passing a small handkerchief, or band, around the head. Instead of removing this poultice to renew the eye-water, let a small quantity be poured upon it from the top, every half-hour, or hour. By means of this simple proceeding, I have succeeded in perfectly curing severe cases of ophthalmia, without being obliged to resort to such active depleting measures as are generally required.

The following washes are much used: Rose-water, a cold infusion of the pith of sassafras or elm-bark, flaxseed tea, weak lead-water, a teaspoonful of laudanum or brandy, in a gill of water. When the pain and heat are great, warm or tepid applications frequently prove more agreeable and soothing than cold ones. Should the disease prove obstinate, or become chronic, small blisters must be applied frequently to the back of the neck, or behind the ears, and kept discharging by basilicon, or savin ointment, or a mixture of Spanish flies and basilicon. In chronic ophthalmia,

one grain of corrosive sublimate, dissolved in ten tablespoonfuls of water, forms a useful application. In the treatment of this complaint, the diet is all-important, and should consist of farinaceous preparations, and vegetables, with a free use of mild diluent drinks. It is important to confine the patient to a moderately dark room, or, if that be not possible, to have the eye covered with a shade.

INFLAMMATION OF THE KIDNEYS.

This disease is characterized by a high fever, a frequent, hard pulse, a furred tongue, great heat and dryness of skin, a frequent desire to urinate, the urine being deep red, or limpid and colorless. There are mostly present nausea or vomiting, numbness of the leg, and often acute pain in the region of the kidney, with retraction and pain of the testicle in the male. Suppression of urine occasionally occurs, adding to the danger.

Treatment.—Bleeding, both general and local, is of primary importance; it should be early and freely employed, and repeated according to the violence of the symptoms, and not upon the amount of blood drawn. The warm bath, and fomentations or poultices to the back, are of great value. Mild laxatives, as oil or magnesia, with, at times, if costiveness be obstinate, a dose of calomel, followed by emollient injections, are to be used for the purpose of acting on the bowels. Frequently, from the constant nausea, injections only can be used. If the pain cease suddenly, and hiccough, clammy perspiration, a weak, intermitting pulse, great prostration of strength, suppression of urine, or discharges of dark, flaky, offensive urine occur, the case may be regarded as almost hopeless.

During the acute stage of this disease, diluent drinks should alone be taken.

INFLAMMATION OF THE LARYNX.

This is an inflammation of the mucous membrane covering the laryngeal cartilages, at times confined to that alone, though generally extending upwards and downwards. Although cases of a mild character frequently occur, and yield readily to treatment, it being impossible to foresee to what

extent it may proceed, this disease should always be regarded as one of a dangerous character, requiring at the onset prompt and vigorous treatment. At times its progress is so rapid that the delay of a few hours may render ineffectual all the efforts of medicine.

Symptoms.—These are more or less inflammation at the back part of the mouth; a feeling of soreness, a degree of restlessness and anxiety disproportionate to the apparent inflammation, hoarseness of voice, difficulty of respiration and swallowing, inspiration being protracted and wheezing, as if the air was passing through a dry, narrow reed; the patient points to the pomum Adami, or protuberance in the centre of the throat, as the seat of the pain and distress, manifestly increased by the least pressure. The cheeks are red, the skin more or less hot and dry, the pulse full and hard, or corded and oppressed. The cough, when present, is stridulous, harsh, and husky. As the disease advances, all the symptoms increase in severity, the countenance is pale, livid, and ghastly, the eyes protrude, the voice becomes wheezing, whispering, or entirely lost, the cough often convulsive and very painful, respiration difficult and painful, with great restlessness.

If relief is not speedily afforded, the patient becomes drowsy and delirious, arterialization of the blood is not perfected, and suffocation closes the scene. By this disease the immortal, the great and good Washington perished.

Treatment.—In mild cases, a dose of Epsom salts and magnesia, repeated small doses of tartar emetic, confinement to the chamber, and a stimulating liniment or mustard poultice to the throat, will often succeed; but, as a general rule, bleeding, general and local, will be required, and may be considered of primary importance. The bleeding from the arm must in severe cases be continued until a decided impression be made upon the symptoms, and this should shortly be followed by leeches or cups to the front or sides of the throat, back of the neck, or upper part of the breast. A brisk purgative of fifteen or twenty grains of calomel, followed by oil, or salts, will prove highly serviceable, and in some cases, small doses of calomel, with or without a minute portion of ipecacuanha and opium, to produce its

effect upon the general system, have been strongly recommended.

Upon the first appearance of an accession of the symptoms, the general and local bleedings should be unhesitatingly repeated. Immediately after the bleeding, or indeed at the same time, the use of a mild gargle, or the inhalation of air passing through warm water, will frequently produce the best effects. Tartar emetic, given in large doses, as eight or ten grains dissolved in eight tablespoonfuls of water, and one tablespoonful given every hour or two, will frequently act favorably. Hot mustard foot-baths, cataplasms of mustard or tobacco to the throat or back of the neck, will occasionally prove serviceable.

Always in mild, and frequently in chronic cases, the hydropathic application of a handkerchief soaked in cold water, eau sedative, or spirits of camphor and hartshorn, to be kept on all night, will prove very beneficial.

If the powers of the system begin to sink, the skin becoming cold, the face pale, or of a leaden hue, the lips blue, and the pulse small and wavering, the time for depletion has passed, and no benefit can be expected from it. In that case, the system must be supported by a more nutritious diet, and our only hope and resource in this stage is the operation of tracheotomy, which may enable respiration and its attendant effects to be carried on, and thus gain time for the operation of other remedies. Although this operation has not been generally successful, most probably from having been too long deferred, there are on record a sufficient number of cases to prove its importance.

In chronic inflammation of the larynx, the most decided benefit, in many cases the only remedies to be depended upon, are an issue or seton in the breast or throat, a repetition of blisters, the tartar emetic ointment or solution, or croton oil, to the throat, the local application of a strong solution of nitrate of silver to the inner part of the larynx, or merely to the back part of the fauces, and above all, the proper and long-continued use of many medicines by inhalation. Among those found principally beneficial by inhalation in this disease, may be named tar, naphtha, creasote,

turpentine, the various narcotic extracts in solution, iodide of iron, iodine, and hydriodate of potash.

In acute cases of this disease, the diet should be restricted to the mildest farinaceous and mucilaginous articles, while in those of a chronic character, with the strength depressed, a more nutritious diet should be allowed, and will often be absolutely necessary.

In severe cases, whether acute or chronic, it is important to use the voice as little as possible.

INFLAMMATION OF THE LIVER.

A disease most frequently met with in hot climates. It commences with constant tenderness, or dull pain, in the right side, increased by pressure, or taking a full inspiration; there is more or less fever, with a hot and dry skin, the pulse is frequent, strong, and full, the tongue generally furred, the urine high-colored, and small in quantity, the bowels irregular or costive, vomiting of a bilious or dark-colored matter frequently occurs, and there is a dry cough, with difficulty of breathing, or lying on the left side. There is often present a constant pain under the right shoulder-blade. In cases of long standing, the liver frequently becomes so much enlarged, as to be distinctly felt below the ribs.

Treatment.—Much fever and pain being present, bleeding largely from the arm is necessary, and should be followed by cupping or leeching, which often require to be repeated, and the application of warm bread and milk, or flaxseed-meal poultices, sufficiently large to cover the right side. A dose of calomel, fifteen to twenty grains, with one of ipecacuanha, should now be given, and in three or four hours, one or more doses of salts and magnesia, or senna tea, to operate freely on the bowels. After this, two or three grains of calomel or blue mass, and one of ipecacuanha, made into a pill, should be given two or three times a day, until the gums become tender; should these pills operate on the bowels, one quarter of a grain of opium may be added to each one. The more prominent and violent symptoms having been subdued by these means, a large blister over the right side is of great value, and when re-

moved, the blistered surface should be dressed two or three times a day with a stimulating ointment, as basilicon or savin. When the blistered surface has almost healed, unless all the symptoms have disappeared, the blister should be repeated. In the latter stages, the inflammation and pain having passed by, as well as in chronic cases, the iodide of potash dissolved in water, or still better, in the tonic extract of sarsaparilla, and may be used as follows: Iod. potass. ʒii to ʒiv; syr. ipecac. ʒvj, in eight ounces of extract of sarsaparilla. Dose, two or three teaspoonfuls, three or four times a day. The extract of taraxacum has long enjoyed a high reputation in affections of the liver, more especially of a chronic character. It may be given freely, mixed with the extract of sarsaparilla. ℞.—Ext. Taraxaci ʒiss; ext. sarsaparilla ʒx. Dose, two teaspoonfuls three or four times a day. The iodide of potash may be usefully added to this mixture. In chronic cases, the nitro-muriatic acid, both internally and externally, is of value; with it, cases of long standing have been cured, after other means had failed. In functional derangement, as well as in chronic inflammation of this organ, the muriate of ammonia is highly praised by the German physicians, and is said to produce the same good effects as are known to follow the use of mercury. It may be given dissolved in water, with powdered gum Arabic or extract of liquorice, or mixed with the extract of sarsaparilla, in the dose of five to ten grains, two or three times a day.

During the existence of the disease, it is important to have the bowels daily opened by some mild aperient, and the diet should consist of diluent, mucilaginous, or farinaceous articles; when convalescence has been established, sago, arrow-root, rice, or mush, may be given, followed by chicken soup, or beef tea, and a gradual return to ordinary food. The strength being sufficiently re-established, and nothing to prevent being present, regular exercise in the fresh air, sponging the body with cold salt and water, followed by friction with a flesh brush, or horse-hair glove, or strap, will essentially contribute to a perfect restoration to health.

In chronic diseases of the liver, the benefit resulting from

the free use of taraxacum, has been acknowledged by many, and by Emberton in particular, who employed it largely in chronic derangements of the stomach and liver.

INFLAMMATION OF THE LUNGS.

This frequently commences with the ordinary symptoms of catarrh, which may continue several days before positive signs of inflammation appear. The prominent symptoms are, a sensation of chilliness, followed by heat of skin, more or less cough, and pain, or soreness in the side, or back of the chest, increased by coughing, taking a full inspiration, or pressing on the part, a sense of oppression, and a difficulty or quickness of breathing. The cough is at first dry, soon attended with expectoration of a viscid character, generally mixed with blood assuming a rusty color, which is probably the most characteristic sign of inflammation of the lungs. The pulse is quick and hard, or corded and oppressed at times. When fully developed, the fever is usually severe. When the sputa become less tenacious, and lighter colored, more resembling those of ordinary catarrh, the inflammation is known to be on the decline.

Treatment.—Bleeding is decidedly the most efficient remedy in the treatment of a well-marked case of inflammation of the lungs. In no disease is the loss of blood better borne than in this; and the earlier it is had recourse to, the more decided and manifest will be the effects. As a general rule, the blood should be allowed to flow until a decided impression has been produced on the symptoms. Local bleeding, by cupping or leeching, soon after the general bleeding, will frequently be demanded, and, should the symptoms reappear at the expiration of a few hours, the bleeding must be repeated. After leeching or cupping, the front part of the chest should be covered with a warm flaxseed meal, or other poultice, or several thicknesses of flannel, wrung out of hot water. Tartar emetic is a powerful aid to bleeding, in this disease. The best mode of giving it is to dissolve five to ten grains in three tablespoonfuls of water, and thirty or forty drops of laudanum. Dose, one teaspoonful, every hour, gradually increasing the quantity until the symptoms have become manifestly im-

proved, when the amount of tartar emetic, which had been previously well borne, without producing nausea or vomiting, will now produce its usual effects, and be no longer tolerated by the system. In the more advanced stage of the disease, small doses of calomel, every hour or two, to slightly affect the gums, will often produce decided benefit. After the removal of the more violent symptoms, by the above remedies, there still continuing difficulty of respiration, dull pain, or tightness of the breast, with a troublesome hacking cough, the application of a large blister over the front part of the chest, will frequently produce the most surprising effects. Applied too early, in this, as well as in other inflammatory diseases, or when the skin is hot and dry, the pulse quick, hard, or oppressed, positive injury will result. When the cough is troublesome and constant, the use of nauseating expectorants will prove beneficial, and for this purpose hive syrup, alone, or combined with mucilage, and syrup of ipecac., may be given every hour or two. Although, in this disease, purging is not generally much resorted to, still will it be found important to unload the bowels, in the first stage, by a dose of calomel and ipecac., followed by senna tea, or salts and magnesia, especially if the tongue be coated. The only nutriment proper, in the early stage of this disease, is flaxseed tea, gum-water, or other drink of a mucilaginous character. The feelings of the patient may, to a certain extent, be consulted as to the temperature of the drinks, still, as a general rule, they are more beneficial if drank warm.

The symptoms having been removed, and convalescence established, farinaceous jellies, as sago, tapioca, arrow-root, or rice, may be allowed for a few days, when, should nothing interfere, small quantities of beef, mutton, or chicken broth may be ventured upon. In recovering from this disease it should be remembered, that too much caution cannot be observed in respect to diet, clothing, and exercise in the open air, as apparently slight deviations have been followed by relapses of the most serious character, often more dangerous than the first attack.

INFLAMMATION OF THE PERITONEUM.

This consists in an inflammation of the membrane covering the large viscera, the bowels, and the inner surface of the walls of the abdomen.

The symptoms are, excessive pain, swelling, and tenderness on pressure of the abdomen, mostly preceded by shivering, and a feeling of general indisposition and weariness. These are followed by a high fever, a frequent, hard, and small pulse, and a sensation of heat and pain in the abdomen, which last soon becomes the most prominent symptom, being of a very acute cutting character. At times this pain is constant, and fixed in one spot, while at others it is paroxysmal and shifting, appearing to depend upon flatus. The least motion increases it, and the patient lies on his back, with the knees slightly elevated. The respiration is small, frequent, and interrupted. Hiccough, nausea, and vomiting are frequently present, the bowels generally obstinately costive, the tongue coated with a white fur, the urine scanty and high-colored, and the thirst excessive. This disease is, in general, rapid in its progress.

Treatment. — The most important remedy is bleeding from the arm, and locally by leeches, carried quickly to the point of producing a decided impression upon the system, the quantity to be drawn to be determined by the condition of the patient's constitution. A repetition of the bleeding and leeching has often to be resorted to in a few hours, in order to keep up the impression, and prevent a renewal of the symptoms in all their force. Light warm fomentations should be applied to the abdomen, or, if possible, a warm bath given. After the bleeding, a dose of calomel and opium is to be given, and repeated in a few hours, after which the mildest aperients and injections should be given to act on the bowels, provided it be considered necessary to effect that, and the pain be not too severe to contraindicate it from the difficulty of the slightest movement.

Calomel and opium, in small doses, to affect the system, are now to be given.

Flannel, dipped in warm turpentine, is a good local ap-

plication. Oil of turpentine, internally given, is a remedy of much value in the latter stages of this disease. The mildest mucilaginous drinks, iced, are alone to be allowed, during the violence of the disease. In some cases, small pieces of ice can alone be tolerated by the stomach.

INFLAMMATION OF THE PLEURA, PLEURISY, PLEURITIS.

This is an inflammation of the membrane lining the inner part of the thorax, and is one of the most frequent of inflammatory diseases. It commences with chilliness and shivering. The characteristic symptoms are, a sharp, pricking pain, or stitch, in the side, increased by coughing, sneezing, pressure, or drawing a full breath. This pain is commonly confined to one spot about the mammary region. The respiration is more or less embarrassed or difficult, the inspirations being short, hurried, and imperfect, to avoid increasing the pain. The cough is at first short and dry, or with a slight mucous expectoration, which, when present, is like that of an ordinary catarrh, and if consisting of frothy mucus, the bronchi are affected, while, when of a rust color, a complication with inflammation of the lungs is evinced. The face is flushed, and the pulse generally hard, frequent, and full, though at times small and oppressed. The tongue is generally furred, the appetite impaired, and the secretion of urine scanty.

Treatment.—In this disease, bleeding is justly considered of absolute necessity, and there are few diseases which bear the loss better, or more strongly call for it, proportioning the quantity drawn, and frequency of repetition, to the severity of the symptoms. It is important that a decided impression be made upon the system and disease, as manifested by the pulse becoming softer, and less frequent, the pain, or stitch, in the side relieved, or removed, a full breath being taken with little pain, or until fainting supervene. In the course of a few hours, should a renewal of the above symptoms occur, bleeding must again be had recourse to. It may be well to repeat what has been said previously, that in violent inflammatory diseases, one large bleeding in the beginning, to completely over-

come the disease, is far better than drawing smaller quantities at a time, and repeating it more frequently, as in the end, the aggregate amount is much greater, and the system more debilitated, by pursuing the latter course. The severity of the symptoms having been removed, if pain or uneasiness continues, cupping, or leeching, becomes necessary, and will materially assist the cure. The blood drawn in this disease presents a buffed or cupped appearance. After general and local bleeding, benefit will result from the application of a warm bread and milk, or flaxseed-meal poultice, or one made by steeping hops, or chamomile flowers, in boiling water and vinegar, and enclosing them in flannel.

Much difference of opinion exists as to the propriety of purging in this and other inflammatory diseases of the respiratory organs, and unless great care be taken to protect the patient when getting out of bed, or a bed-pan be used, no doubt, inconvenience may result, but there can be no question of the propriety of thoroughly unloading the primæ viæ, by administering ten or fifteen grains of blue mass, and one or two of ipecacuanha, after the bleeding, followed, in four or five hours, by one large, or repeated smaller doses of senna tea, salts and magnesia, or oil, until the bowels are freely moved. During the violence of this disease, or until convalescence has been established, nauseating doses of tartar emetic, dissolved in water, or the hive syrup, may be given every hour or two, with advantage. Two or three grains of calomel, or blue mass, ipecacuanha half a grain, and opium one-eighth of a grain, every two or three hours, until the gums become tender, often prove serviceable, after the removal of the more violent symptoms by the above means. After the subsidence of the more active symptoms, the system having been sufficiently reduced, should there remain soreness, or pain in the side, it will be proper to apply cups, scarified, or not, as may appear advisable, and afterwards a large blister, immediately over the painful part, will rarely fail to act beneficially. If effusion has taken place, shown by great and increased difficulty of breathing, or in lying down, the gums must be kept sore by administering two, three, or four times a day, one of the following pills. Calomel, or blue mass, twenty grains;

powdered squill, ten grains; powdered digitalis, five grains; to be made into fifteen pills.

During the existence of this disease, the patient should only be allowed mild mucilaginous and farinaceous drinks, and when convalescence has begun, rice, or oatmeal gruel, sago, or arrow-root, may be given in moderation. All symptoms of the disease having disappeared, the food may be more nutritious, and plain unstimulating meat-broths, or the soft part of a few oysters, may be safely given.

In chronic pleurisy, the necessity for general bleeding does not always exist, and the local application of leeches, or cups, will prove sufficient in a majority of cases. The repeated application of blisters, croton oil, or tartar emetic ointment, or plaster, will prove of great benefit, at the same time giving, several times a day, small doses of calomel, digitalis, and squills, as above, in order to mercurialize the system and promote the absorption of the fluid which is often effused.

INFLAMMATION OF THE STOMACH.

This disease, not of very frequent occurrence in its most acute form, is, however, of a chronic character, constantly met with. It is accompanied by the following symptoms, varying in intensity according to the violence of the attack. A sensation of distress in the stomach, with more or less pain, increased by the least pressure, or the weight of the bed-clothes, excessive thirst, with desire for cold drinks, nausea, and vomiting; sunk countenance and extreme prostration. Respiration is quick and difficult, cough sometimes frequent, constipation severe; the pulse is small, frequent, contracted, and corded; hiccough supervenes, adding greatly to the suffering. The tongue at times presents a natural appearance; at others is coated or red. In some cases of severe disease of the stomach, the more prominent symptoms are those of cerebral affections.

Treatment.—If the patient be robust, with the pulse hard and corded, there will be no doubt of the benefit from general bleeding; but under opposite circumstances, blood must be sparingly abstracted. Local bleeding by leeches is more to be depended upon, with less risk of excessive pros-

tration. They should be freely applied, and the bleeding encouraged by warm fomentations, which should be light. Cool, saline enemata are to be used to open the bowels; for if the stomach could retain purgatives, the propriety of their use is generally doubted. At the latter stage of the disease, after having arrested the violence of the symptoms, a large blister to the abdomen will prove beneficial. Large doses of opium by the mouth, or injection, have been advised, as well as mercury carried to salivation, if easily induced. The producing salivation by friction with mercurial ointment is the preferable mode of using it, for the purpose of avoiding increased irritability of the stomach. Small pieces of ice, and iced mucilaginous drinks, should be the only articles permitted to be taken during the height of the disease.

INFLAMMATION OF THE THROAT, INFLAMMATORY SORE THROAT, QUINSY.

In quinsy, properly speaking, the tonsils are principally affected; but as those glands cannot be much inflamed without implicating the neighboring parts, we shall, under this head, treat of the more common inflammation of the fauces, or sore throat.

Symptoms.—The first evidence of quinsy, or sore throat, is pain in swallowing solids or liquids, the tonsils are swollen, and, as well as the adjoining parts, red or inflamed. There is a sensation of heat and dryness, with soreness and difficulty of swallowing. The voice is generally hoarse. In a short time there is a secretion of viscid mucus, requiring painful hawking efforts to remove it. The ear at times becomes affected, and hearing is impaired, which may be temporary, or become permanent. Unless in the act of swallowing, or in severe cases, little pain is generally experienced, though there exists constant uneasy sensations of distension and discomfort. When both tonsils are affected, they often project into the arch of the fauces, leaving but a small space for deglutition, and fluids are apt to run out of the nostrils in endeavoring to drink. The pain in swallowing, and difficulty of breathing increase as the disease advances. In severe cases, the pain shoots from the throat to the ear, and a tingling in the ears, with partial deafness,

are often present. The mouth can at times be opened with difficulty, scarcely sufficient to allow an examination to be made, and the patient is frequently unable to lie down. The eyes are generally inflamed, and the pulse is full, quick, and hard.

An increase of the mucous secretion, with less viscidity, and more ease of swallowing and breathing, and a decrease of the inflammatory symptoms, indicate that the disease will terminate by resolution; while an increased difficulty of breathing, swallowing, or opening the mouth, the external swelling considerable, with a pulsation internally, extending to the ear, indicate the commencement of suppuration, and the probable bursting of the abscess; whenever this occurs, whether naturally, or by opening with a lancet, an immediate relief to all the unpleasant symptoms results.

Treatment.—In mild cases a dose of calomel, or blue pill, and ipecacuanha, followed by cooling saline purgatives, or senna tea, the frequent application to the throat of a stimulating liniment, confinement to the chamber and the use of a mild gargle, repeated every ten or fifteen minutes, will often prove sufficient. The use of emetics, in anginose affections, is peculiarly beneficial, and we may strongly recommend one of tartar emetic, to be followed, in a few hours, by a dose of calomel, or blue pill, and after this, free purging, with castor oil, senna tea, or salts and magnesia. When the inflammation, and other symptoms, are severe from the commencement, bleeding from the arm, and locally, by leeching or cupping, or scarifying the tonsils, followed by gargling with warm water, are of great importance. Mild gargles should be freely used, and that of cayenne pepper will, at times, produce the most beneficial effects. Black or red currant jelly, as a gargle and drink, may be freely used. Inhaling the vapor of warm water and vinegar, or laudanum, to effect a resolution or hasten suppuration, is a remedy of value. The application of a blister towards the latter stages of the disease, after the free employment of the antiphlogistic regimen, has been strongly recommended, and there can be no question of the great advantage resulting when properly timed. The throat, however, being that

part of the body where a blister produces the most pain and uneasiness, respiration and every effort to swallow being attended by an increase of pain and irritation, it is preferable to allow the blister to remain on only a few hours, or until considerable redness and uneasiness result, when it should be removed, and a warm bread-and-milk or flaxseed-meal poultice applied, which will prove soothing and cause a large blister to be raised.

When suppuration has resulted in one or both tonsils, unless demanded by the difficulty of breathing, it is generally considered preferable to allow the abscess to open spontaneously.

In cases of enlarged tonsils of a chronic character, should inconvenience result in speaking or swallowing, they must be removed by an operation, previous to which incisions may be made in them every two or three days, as such a course has often succeeded in effecting a cure.

The following gargle is used advantageously in chronic enlargement of the tonsils. One or two tablespoonfuls of ground oak bark, boiled in a pint of water for one hour, strain, and add four or five tablespoonfuls of brandy, and two teaspoonfuls of alum. Tannin, dissolved in water or brandy, forms an excellent gargle for those subjected to frequent attacks of sore throat, attended with a relaxation of the parts.

The extract of catechu, made as a gargle with vinegar, water, and honey, is an excellent application.

At the commencement of this disease, many strenuously advise the free application of cold water to the throat, or a handkerchief or small towel, soaked in cold water, applied to the throat, with a dry towel over it. This I have tried with success.

INFLAMMATION OF THE TONGUE.

This disease of the substance of the tongue, often sudden in its attack, and rapid in progress, results from the usual causes of inflammation, though more frequently from direct injury by corrosive or irritating articles, as scalding drinks, wounds, bruises, or bites of venomous insects. At times it occurs during the progress of eruptive fevers, and from sali-

vation caused by mercury. It commences generally by the anterior part becoming painful and swollen, at times, in a few hours, embracing the whole organ, which may become so large as to fill the mouth, force open the jaws, and project beyond the teeth and lips. Deglutition, always difficult, is sometimes impossible, and the patient is unable to articulate. The tongue, generally dry and red, is at times moist and covered with a thick, white, or yellow fur. The pulse is quick and strong, and the skin hot and dry, in the commencement; but as the disease advances, and respiration becomes embarrassed, the pulse loses its strength, and cold sweats occur. If not removed by appropriate treatment, suppuration, or gangrene will ensue, unless the patient shall have previously died from suffocation or apoplexy.

Treatment.—This must be prompt and efficient. Bleeding from the arm should be carried to as great an extent as the system will allow, and repeated as often as may be necessary to arrest the inflammation. If the patient can swallow, active purgatives are very necessary; among the best are salts and magnesia, senna tea with salts, or croton oil in a small quantity of castor or sweet oil. Copious injections are also to be used simultaneously with or in place of cathartics when deglutition is impossible.

Shortly after the bleeding, the application of a large number of leeches to the upper anterior part of the throat will be necessary, and should be repeated according to the urgency of the symptoms. If leeches are not to be procured, cups may be applied to the back of the neck, or side of the throat. After the leeching, a large emollient poultice should be applied, except in those cases where a blister becomes indispensable. If no impression on the disease be made by the treatment vigorously pursued, and danger of suffocation be imminent, it will be necessary to make free incisions into the substance of the tongue, one on each side of the median line, extending from the base to the tip, observing the precaution not to make them too deep, for fear of wounding the ranular arteries. Should all of these means fail, and the patient be in danger of suffocation, the operation of laryngotomy or tracheotomy will be the last and only resource; allowing respiration to be carried on, and

giving time for the subsidence of the swelling, and inflammation.

When an abscess forms in the tongue, it should be opened with a lancet or bistoury, and the use of a mild mucilaginous wash freely indulged in.

During the existence of inflammation of the tongue in its early or acute stage, cold mucilaginous drinks should alone be allowed.

ITCH.

This disease, highly contagious, and asserted to be caused by a small insect, is characterized by an eruption of small vesicles, accompanied by intense itching. The hands and arms, particularly about and in the joints, are principally affected.

Treatment.—Sulphur is a certain cure, and must be used internally and externally. The ointment is to be thoroughly rubbed in, two or three times a day, for several days, the parts then well washed with Castile soap and water, and if not perfectly well, the frictions must be repeated. From one to three teaspoonfuls of the flowers of sulphur, mixed in molasses, should be given two or three times a day. A strong wash of the sulphuret of potash, in water, or lime-water, is also an excellent remedy. During the continuance of this disease, the diet should be of a vegetable character.

ITCHING, PRURITUS.

A very distressing and troublesome cutaneous affection, aggravated by heat, and at times, by exposure to the air. It almost always attacks the neighborhood of the privates, the upper and inner parts of the thighs, and around the anus, producing an almost irresistible desire to rub or scratch, and, in some cases, those parts are kept raw or inflamed, attended at times with febrile excitement.

Treatment.—Occasional small doses of calomel, or blue mass, and ipecac., at bedtime, followed in the morning by a dose of salts and magnesia; minute doses, one-twelfth of a grain, of tartar emetic dissolved in water, four or five times a day, continued for weeks; or the same quantity of corrosive sublimate dissolved in water, three or four times

a day for eight or ten days, a few drops of Fowler's solution of arsenic, three or four times a day, for several weeks; iodine and iodide of potash mixed with the extract of sarsaparilla, and continued for weeks; injections of cold water every morning: all of these have at times proved serviceable, and it will often be found necessary to use them all in succession. Local applications are much used, and occasionally prove serviceable; the following are considered among the most certain :—

Lime-water by itself, or combined with calomel, forming the black wash, or with corrosive sublimate, forming the yellow wash; a weak solution of creasote; chloride of soda diluted with four or five times as much water; a solution of sulphuret of potash in water or lime-water; a solution of borax in rose-water, to which may be added morphia; a strong solution of nitrate of silver in rose-water, five to twenty grains to the ounce: this is perhaps the best of all. Tar ointment, an ointment of white precipitate, and corrosive sublimate. Constant bathing with cold salt and water, should be rigidly enforced, after which, any of the above may be used. The diet should be plain and nutritious, avoiding all heating, stimulating food and drink.

JAUNDICE, ICTERUS.

This disease is caused most frequently by a functional derangement of the liver and digestive organs, and is frequently observed in the course of severe attacks of some fevers.

The symptoms are, languor, decrease, or loss of appetite, nausea, or vomiting, a bitter taste in the mouth, a furred tongue, depression of spirits, the eyes and skin more or less yellow, the urine of a deep saffron or brown color, which is imparted to the linen; the discharges from the bowels are generally of a clay color, though constipation is not of unfrequent occurrence. A dull pain is commonly felt in the right side, the pulse is hard and full, and fever is often present. The brain sometimes becomes affected, coma supervening, and adding much to the danger of the case.

Treatment.—The principal indication in the treatment of jaundice, is to restore the hepatic secretion to its natural

state, which, in the majority of cases, will be all that is required. Should there be considerable fever, with a hard, full pulse, pain in the side, bleeding from the arm, and locally from the side, by cups, must be resorted to. When the pain is of a spasmodic character, it may possibly depend upon the passage of a gall-stone, and will require, after the bleeding, a warm bath, and opium, both internally and by injections, in large doses. If the tongue is much furred, with considerable nausea, an emetic must be given, after which, in four or five hours, from twelve to twenty grains of calomel, with one of ipecac., is proper, and should be followed, in a few hours, by repeated doses of oil, senna and salts, or salts and magnesia, to open the bowels freely. The application of a mustard poultice, flannel soaked in turpentine, or large emollient poultices of hops, flaxseed meal, or bread and milk, and bathing the feet in hot mustard-water, will, when much pain is present, afford great relief. The free use of mucilaginous drinks, containing a small quantity of supercarbonate of soda, is beneficial, and often contributes materially to alleviate the pain.

Should coma supervene, cupping or leeching the temples, or back of the neck, must be resorted to, with the application of cold water to the head, and, as far as the strength of the patient will allow, keeping the bowels freely acted upon by the use of injections, or some mild aperient. To relieve the great nervous restlessness frequently existing, the use of small doses of Dover's powder, or of the tincture of hyoscyamus, or cicuta, will prove useful. Excessive itching of the whole body sometimes occurs, for which, rubbing with rye meal will be found of service.

It is important, as long as the disease continues, to keep the bowels gently open every day by moderate doses of rhubarb and magnesia, senna tea, or salts and magnesia, and an occasional dose, at bedtime, of plue pill or calomel, combined with ipecac. The patient should be confined in the first instance to diluent drinks, followed by gruel, sago, arrow-root, and, when convalescence is established, beef, mutton, or chicken broth, with the use of a mild tonic, as chamomile tea, bark and snake-root tea, or a solution of quinine, will hasten recovery.

MEASLES.

This disease, as a general rule, occurring but once in the same person, and almost uniformly in infancy or childhood, commences with alternate chills, and flushes of heat, languor, restlessness, pain in the loins and limbs; the eyes are inflamed, with a watery discharge from them and the nostrils; the eyelids are heavy, turgid and red; thirst, nausea, or vomiting succeed, with headache. There is generally inflammation of the mucous membrane of the air-passages, soreness of the throat, hoarseness, and a short dry cough. The pulse is frequent and strong, and the respiration hurried and uneasy.

The eruption generally appears on the third day, seldom earlier, frequently later. It shows itself in distinct spots, on the face, neck, and arms, afterwards spreading over the body, and lower extremities, often running into each other, and having more or less a crescentic shape, the intermediate skin being of a healthy color. It is occasionally seen in the mouth and throat. At times, about the fifth or sixth day, it assumes a dark or livid color, with a tendency to recede, or be thrown inwards. When the disease goes naturally through its course, the eruption changes on the fifth or sixth day, from a red to a brown hue, and begins to peel off. The fever now generally ceases, although the cough may continue some time longer, requiring care, to prevent a not unfrequent and protracted complaint of the lungs, or bronchial mucous membrane. In some cases, near the close of the disease, diarrhœa supervenes, and demands attention. The worst cases of measles are generally those where the eruption is partial, or appears late, imperfectly, or irregularly.

The eruption is the distinguishing feature of the disease, but the catarrhal, or bronchial affection, is by far the most important, and is generally, if not always, the cause of death, when that occurs. The thoracic symptoms being mild, we argue favorably of the termination, and unfavorably, whenever the eruption does not come out well, or is of a livid color, with a typhoid, or low condition of the system.

Treatment.—In ordinary cases of measles, little else is required than mild mucilaginous drinks, gently opening the bowels by oil, or other mild laxative. In consequence of the pectoral symptoms, and the possible results which may be apprehended, it is proper in all cases to keep the patient in bed, with no more clothes on than he is accustomed to, or the season demands.

The temperature of the room should be uniform, to a certain extent governed by the feelings of the patient. The antiphlogistic regimen should be enforced.

When the fever is high, the pulse full, hard, and frequent, with pain, and difficulty in breathing, or coughing, increased upon taking a full breath, it is necessary to bleed from the arm, and apply leeches or cups to the throat or breast. When general bleeding is considered inadmissible, owing to the debilitated condition of the patient, the application of leeches or cups to the breast may be beneficially resorted to, after which a warm bath will often prove serviceable. A small dose of calomel, or blue mass, three to five grains, with one grain of ipecacuanha, followed in three or four hours by a dose of oil, may be given when the tongue is much furred. If the cough and soreness of the throat be troublesome, a few drops of hive syrup may be given every one or two hours, until vomiting be produced, after which it may be continued in small doses, to keep up its effects upon the system. At the same time flaxseed tea, gum-water, or other mucilaginous drink, should be occasionally given.

The skin being hot and dry, we may use the following advantageously: Hive syrup, ʒiv; sp. æther nitros. ʒvi; liq. ammon. acetat. ʒii. Dose, one or two teaspoonfuls every one or two hours.

For the difficulty of swallowing, and soreness of the throat, the frequent use of a mild liniment, and a gargle of borax, sage tea, and honey of roses, will be found serviceable.

Notwithstanding the general and local loss of blood and other appropriate treatment, from inattention, or injudicious and too early exposure, the cough attendant upon measles will often assume a serious character, and terminate in irri-

tation or inflammation of the bronchial mucous membrane. In such cases, the following mixture will prove useful:—

℞.—Powdered gum Arabic, ℥vj; tartar emetic, grs. ii; hive syrup, ℥i; spirits of nitre, ℥i; syrup of gum Arabic, ℥ij. Dose, from one half to two teaspoonfuls every hour, according to the age of the patient.

In cases where much difficulty of breathing, a dry cough, and more or less pain exist, with a tendency to a recession of the eruption, sometimes observed in the latter stages of the disease, cupping or leeching the breast, followed by a blister, will frequently be required to effect a cure, and prevent serious consequences.

The blister may remain on for four or six hours, or until considerable pain and irritation are produced, when it should be removed, and a flaxseed-meal or bread-and-milk poultice applied. When the poultice is removed, the blistered surface may be dressed with basilicon ointment, or simple cerate. A warm bath, repeated two or three times a day, is useful in those cases where the eruption does not come out fairly, or is disposed to recede, and after the bath, garlic or mustard poultices should be kept constantly applied to the soles of the feet, or calves of the legs, the wrists, and, in bad cases, to the stomach and breast, to excite and keep up a constant, though not severe irritation.

During the entire course of an ordinary attack of this disease, the patient should only be allowed mucilaginous drinks, and sago, arrow-root, or rice-gruel, but when typhoid symptoms, or a low, weak, and exhausted state of the system exist at any stage of the disease, with the appearance of purple or livid spots, a more generous and nourishing diet, as beef tea, or chicken broth, with wine or brandy, quinine, or bark tea, to which elixir of vitriol may be added, become necessary, and should be given every hour or two.

After the disappearance of the symptoms of measles, it is important that the patient dress warmly, and avoid exposure to raw, damp air, and by no means should be allowed to go out too soon, for so great is the predisposition after this disease, to pulmonary and other diseases of a dangerous character, that we frequently find the consequences intrac-

table, from a want of proper attention to prudential and precautionary measures.

MUMPS.

This disease, contagious, or susceptible of communicating itself to others not previously affected, consists in an inflammation and swelling of the parotid gland, of one or both sides, attended with pain, increased by the movements of the lower jaw, or by pressure, and at times considerable fever. Frequently, it attacks the gland of one side at first, and when nearly well, that of the other side becomes affected. The swelling, at first distinct, soon extends to the maxillary glands, and over a great part of the throat. The disease commonly reaches its height in four or five days, and then begins to decline, when it not unfrequently happens, that the testicles in males, and the breasts in females, increase in size, become hard and painful, disappearing, however, in a few days.

Treatment.—As a general rule, little is required than guarding against exposure to cold, bathing the parts several times a day, with a mild anodyne, oleaginous liniment, applying a strip of flannel around the neck and jaws, and an occasional small dose of salts or spirits of nitre, and antimonial wine. Should there be much headache, with febrile action, the bowels must be acted upon, with a few grains of calomel, followed by a dose of salts and magnesia, and the nitre and antimonial wine every hour or two. At times, the inflammation and fever are so great as to require general bleeding, and the application of leeches to the parts. The swelling and pain of the testicles, or breasts, will generally be removed by frequent bathing with a mild, warm liniment, or the application of a bread-and-milk poultice; occasionally, however, so severe are they, as to require the application of leeches, followed by a warm poultice. The solution of acetate of ammonia (spirits of Mindererus), applied hot, with a piece of flannel soaked in it, has been strongly recommended as a local application.

When mumps assume a chronic form, sometimes observed when attacking old persons, leeches, blisters, and an ointment of iodine, ten grains, hydriodate of potash, one drachm,

with one ounce of simple cerate, or lard, will be found requisite. At times, in these cases, a few small doses of calomel, or blue mass, are required to produce a slight impression upon the system.

NETTLE RASH.

An eruption of small, hard eminences, generally round, or oblong, red and white in color, accompanied by heat, burning, and tingling. It is generally caused by derangement of the stomach, from improper or indigestible food. It is, in some, very apt to follow the use of certain articles of food or medicine, as mushrooms, raw cucumbers, shell-fish, almonds, copaiva, cubebs, valerian.

Vomiting and purging sometimes occur after the appearance of this rash, and, by removing the cause, prove an effectual cure. Antacids, combined with the milder cathartics, are generally found sufficient; occasionally, however, it will be proper, from the severity of the case, and the greater derangement of the alimentary canal, to give a mild emetic, or a dose of calomel and ipecac., followed, in a few hours, by a dose of oil, salts and magnesia, or senna tea. A warm bath will generally prove serviceable. A lotion of vinegar and water, salt and water, or the following mixture, may be applied to allay the heat and itching. Carb. ammonia ℥i; acet. plumbi ℥i; rose-water ℥viij.

NEURALGIA.

Under this name is included that class of diseases in which there is pain, at times spasmodic and intense, generally unattended by inflammation, fever, tenderness, or any change of structure in the affected part, no matter how long and painful the attacks may have been. These pains may occur in all parts of the body, though they generally attack the face and head, and when there, it is known by the name of tic douloureux. As a general rule, these severe pains come on, and disappear suddenly, often assuming a regular intermittent character, without any well-marked apparent cause.

In those predisposed to neuralgia, a sudden change of

weather, exposure to draughts, derangement of the digestive organs, or other slight causes, will produce an attack.

Treatment.—Tonics and antispasmodics are generally more curative than the antiphlogistic or depleting remedies, which, although occasionally useful, if pushed too far, prove positively injurious.

The division of the trunk of the affected nerve has, at times, though rarely, effected a cure. Mr. Jeffries relates a case of violent facial neuralgia, cured by the removal of a piece of china which had been there for fourteen years.

Many cases are recorded of violent and long-continued facial neuralgia being effectually cured by the extraction of one or more carious teeth. I had under my charge a lady of excellent general health, who had suffered upwards of ten years from repeated violent attacks of facial and frontal neuralgia, for which every known remedy had been unsuccessfully tried, who was immediately benefited, and permanently cured by the extraction of six old roots.

From this, and similar cases on record, may properly be deduced the necessity of examining carefully the condition of the teeth, and gums, in all cases of this disease about the face or head, and of immediately removing those stumps, or decayed teeth that do not admit of plugging. This last operation will not, however, always succeed, for an irritation originating apparently in a decayed tooth, may have extended to the lining membrane of the root, causing inflammation and suppuration, that nothing but extraction will remove. In some cases, where neither stumps nor decayed teeth exist, to account for the disease in the face, freely scarifying the gums, even to the bone, has effected a cure.

Great caution is to be observed in extracting teeth for this disease, lest sound ones be sacrificed, for nearly all the teeth have, in some cases, been removed under the impression of their causing the disease, without any benefit resulting.

Numerous, indeed, are the remedies which have been applied locally in this painful disease, sometimes with benefit, at others without effect. Among the many, the following are deserving of notice and trial: Veratriæ ℈j; pulv. opii ʒss; pulv. capsici ʒj; axungiæ ʒj; to be well mixed.

A small portion to be rubbed on the part, for ten or fifteen minutes, three or four times a day. Or, cyanuret potassii ʒj; ext. belladonnæ ʒij; ext. opii ʒj; pulv. capsici ℈j; tinct. belladonnæ ʒx; aq. ammoniæ ʒiv.—M. A small quantity to be well rubbed on the part several times á day.

Croton oil, pure, or mixed with lard, simple cerate, soap liniment, or sweet oil, in the proportion of two drachms to an ounce of either, or the ointment of tartar emetic, rubbed on the affected part, will often prove successful. A Burgundy pitch plaster, sprinkled with tartar emetic, is an excellent mode of using it.

The following liniment of Rauque, has enjoyed a high reputation as a local application in neuralgia :—

Ext. belladonna ʒj; ether sulphuric ʒj; laurel water ʒij.

The subcarbonate of iron has been successfully given internally in long-standing cases of neuralgia. Beginning with a moderate dose, a teaspoonful, it should be rapidly increased, until two or three tablespoonfuls are taken in the course of the day, mixed with molasses, syrup, or sugar and water. The alcoholic extract of nux vomica, from one-fourth to one grain, or, the active principle, strychnia, one-twelfth of a grain, three or four times a-day, will sometimes succeed. The arsenious acid, in pill, one-twelfth of a grain, or as Fowler's solution, ten or fifteen drops, three or four times a day, continued for some time, is deservedly celebrated as a remedy of great power in the various forms of neuralgia.

In some cases of facial neuralgia, a snuff, composed of quinine, morphia, and powdered cicuta, has been used advantageously.

Chloroform, applied by soaking a piece of linen in it, or mingled with sweet-oil, will at times allay the pain.

A lotion of cyanuret of potash, ten or twenty grains, in an ounce of water, applied to the affected part by means of a ball of cotton, or piece of sponge tied on a stick, will afford, at times, great and immediate relief.

The following pills of Meglin, have acquired no little celebrity in chronic cases of this disease: Ext. hyoscyami ʒss; oxid. zinc ʒss; ext. valerian ʒss; to be made into thirty pills. Dose, one every night and morning, gradually

increasing the number, until vertigo, or uneasiness in the head be produced.

Very strong coffee, taken freely, has sometimes effected a cure, and at times a large quantity taken at the commencement of a paroxysm will arrest its future progress.

PROLAPSUS ANI.

This is a descent of a portion of the rectum, or lower intestine, or its lining membrane, below the sphincter, forming a tumor at the anus; in general, however, it is confined to the membrane alone. The ordinary causes of this disease, are habitual straining at stool in those subject to costiveness; the long-continued use of drastic or other cathartics, chronic dysentery, or diarrhœa and relaxation, or debility of the general system.

The extent of protrusion may be small, and slow in progress, or sudden, and large.

Treatment.—The first thing to be done, is to return the protruded part, by gentle pressure with the finger, previously oiled. Washing in cold water for a few minutes will often cause a return of the part. Where considerable resistance is met with, the warm hip-bath, emollient poultices, injections of laudanum, and if much pain and swelling exist, the application of a few leeches near the part, and cold water become necessary.

To prevent a recurrence of prolapsus in those once affected, care must be taken to avoid irritating the rectum by drastic cathartics or constipation, which produce straining at stool. The bowels must be kept daily open by means of a laxative diet, or the mildest laxatives, as sulphur and magnesia.

Dr. Physick strongly recommended rye mush and molasses for this purpose, as also the having the bowels open in an erect position. The use of cold water, freely applied after each evacuation, as well as morning and night mild astringent injections, or ointments of catechu, rhatany, galls, oak-bark, or alum, are generally required to obviate or remove the relaxation of the parts. Small doses of cubebs, copaiba, or oil of turpentine, are often successful in chronic cases. Mechanical contrivances are sometimes necessary to prevent the constant protrusions.

RHEUMATISM.

This is a constitutional complaint, attended with a peculiar irritation or inflammation, to which all parts of the body are liable, and may be acute or chronic. The first sensible or appreciable symptoms are generally of a local character, though close observation would frequently detect premonitory symptoms of derangement of the digestive organs. The local symptoms are generally first felt in the back, extremities, or shoulder-joints. An attack of rheumatism is most frequently caused by exposure to raw, damp, cold air, or to a draught, after having been heated by undue exercise. Acute rheumatism attacks principally the young and vigorous, though no age is exempt. It commences with chilliness and shivering, soon followed by a hot skin, restlessness, thirst, pain, increased by motion or pressure, and more or less severe, in one or several of the joints, generally the large ones, with redness and swelling, frequently shifting from one to the other, or to some internal organ, especially the heart. These symptoms vary in intensity, in proportion to the number and size of the joints affected. The pulse is commonly full, hard, and frequent, and the tongue moist, and more or less furred. Costiveness is usual. The urine is generally high-colored and small in quantity, depositing frequently a copious brickdust sediment. The pain of rheumatism is more generally present than the swelling, and this more so than the redness. The pain is generally aggravated towards night, and frequently when warmly covered in bed.

Treatment.—If much pain, a hot skin, and hard pulse exist, with or without swelling and redness, bleeding, both general and local, must be resorted to, and repeated if necessary.

The blood drawn in acute rheumatism is almost always cupped and buffy, after each bleeding, however frequently repeated, but these general signs of inflammation should not be regarded, in themselves, as indications of the propriety or necessity of its repetition.

Free purging is by many considered not less efficacious than bleeding, and for this purpose the bowels are to be freely

acted upon by giving ten or fifteen grains of calomel, one or two of ipecacuanha, and one of opium at night, followed the next morning by one large, or frequently-repeated smaller doses, of senna tea, or salts and magnesia. Moderate purging continued for some time, is strongly recommended in this disease.

Dover's powder, in doses of six to ten grains every two hours, for three or four doses, confining the patient to bed, and causing him to drink freely of hot sage, or boneset tea, will at times succeed in effecting a cure, more especially if the bowels have been previously acted upon by a dose of calomel and rhubarb, or oil. The violence of the disease having been subdued, soreness and stiffness alone remaining, the use of a stimulating anodyne liniment, three or four times a day, will be found of advantage. In cases of acute rheumatism, with fever and inflammation, the diet should consist of vegetable or farinaceous articles, but in other cases a more liberal one may be allowed.

Gently bathing a painful rheumatic joint with warm sweet-oil and laudanum, and then enveloping it in a gum-elastic sheet, or oiled silk, will often afford relief.

Nitre or saltpetre, in large doses, one, to one and a half ounces dissolved in a quart of water, and drank during the day, has been strongly recommended in acute rheumatism, but the general belief in the greater safety of smaller doses induces the recommendation of from forty to eighty grains, in a pint of water or flaxseed tea, to be taken in wineglassful doses, every one or two hours during the day.

In those cases of rheumatism, attended by debility and much perspiration during sleep, the use of sulphate of quinine in two to five-grain doses, will frequently prove serviceable.

In chronic rheumatism, an occasional pill of five grains of blue mass, one grain of ipecacuanha, and half to one grain of opium at bedtime, acting upon the bowels the following morning with a dose of rhubarb and magnesia, or some mild but efficient pills, twenty or thirty drops of the tincture of colchicum, three or four times a day, frequently repeated stimulating liniments to the parts affected, regular morning and evening friction with the flesh-brush

or horse-hair glove or strap, will frequently effect a cure, and rarely fail to afford relief.

In chronic rheumatism, as well as in neuralgia, which by many physicians is regarded solely as a modification of rheumatism, it is important to examine carefully the spine, as upon pressing upon each prominence in the centre of the back, there is frequently observed in one point a manifest tenderness, at times amounting to severe pain, not previously noticed, which extends, or shoots from that part to almost every portion of the body, and cases, which had previously resisted all plans of treatment, have been cured by the application of leeches or cups, followed by blisters to the affected part of the spine.

The iodide of potash is deservedly celebrated for the cure of rheumatism, especially of a chronic character, and the results effected by it are sometimes astonishing. It is given dissolved in water, or in the extract of sarsaparilla, in which last it appears to be preferable. Dissolve from three to six drachms of iodide of potash in eight or ten ounces of the extract of sarsaparilla, and give from one to three teaspoonfuls four or five times a day.

The volatile tincture of guaiacum in doses of one or two teaspoonfuls, two or three times a day, has long been held in high esteem for the cure of chronic rheumatism.

Obstinate rheumatic pains have been completely cured, by giving every night, for some time, one or two teaspoonfuls of the flowers of sulphur in a little milk.

The Chelsea pensioner, a well-known remedy for chronic rheumatism, is made as follows: Flor. sulphur, ℥ij; sup. tart. potass. ℥i; pulv. guaiac. ℥i; pul. rhei ℥ij; sp. myristicæ ℥ij; honey, a sufficient quantity to make an electuary. Dose, one or two teaspoonfuls every night and morning. With a slight alteration in the quantities, and omitting the spirit of nutmeg, this mixture is strongly recommended by Dr. Graves, of Dublin.

Acupuncturation, which consists in the introduction of a fine needle of gold, silver, or steel, into the skin and muscles of the part affected, has been found of great value in many cases of chronic rheumatism.

The needle is introduced with a slight rotary motion, and gentle pressure. Little pain is caused by their introduction; and frequently, after the failure of other remedies, the introduction of four or five needles in the vicinity of the disease will remove the pain. The needles may remain in from ten minutes to one hour, or longer, care being observed to avoid any sudden motion of the body, for fear of breaking them.

SCURVY.

This is a disease in which the blood is vitiated, and the system debilitated, with a tendency to hemorrhage, petechia, local congestion, and inflammation in different parts of the body, especially the gums.

Scurvy generally occurs at sea, especially on long voyages. It appears clearly established that a prolonged abstinence from succulent vegetables, fruits, or their preserved juice, as articles of food, is the most general cause of scurvy.

Although scurvy arises from deficiency of proper food, the disposition to the disease is greatly increased by neglect of cleanliness, imperfect ventilation, want of proper exercise, and a cold, damp atmosphere.

Lemon-juice was formerly supposed to be a certain cure for, as well as a preservative against, this disease; but later and more extensive observations prove its incorrectness, however valuable it may prove when conjoined with fresh animal food, vegetables, and good biscuit.

Scurvy approaches gradually, the first symptoms being lassitude, indisposition to move about, unusual fatigue after moderate exercise, the gums swell and bleed upon the least friction, and have a soft, spongy, and livid appearance; there is great despondency of mind, the tongue is furred, or clean and moist, the appetite and digestion at times unimpaired. The breath is offensive, the pulse small, feeble, and slow, the urine is small in quantity, and high-colored. The skin is dry and rough, or sometimes smooth and shining, generally covered with livid spots, coalescing into large blotches, particularly about the legs and thighs. The legs swell, and the whole body ultimately becomes œdematous. If there are sores on the body, they discharge

a fetid or bloody sanies. In the more aggravated form of the disease, the patient loses the use of his limbs; the tendons in the hams are contracted, with pain and swelling of the knees and other joints. Hemorrhages break forth from the nose, ears, and bladder. Diarrhœa occurs, with bloody and offensive discharges. The teeth become loose, and frequently fall out. Palpitation of the heart, panting, vertigo, dizziness, and a feeling of faintness, are generally present.

Treatment.—The most natural and effectual cure of this disease is a return to a diet of fresh meat and vegetables; but where, as at sea, this cannot be obtained, the use of preserved fruits, sugar, spruce-beer, vinegar, tartaric acid, lime or lemon-juice, and an infusion of malt, should be resorted to. Irish potatoes, eaten raw, alone, sliced in vinegar, or boiled, have been recommended as a cure, and preventive of scurvy. The water, if fresh, in which they have been boiled, should also be drank. Sauerkraut has long been celebrated as an antiscorbutic. The disease having made its appearance on board ship, when the above articles cannot be procured, the following medicines may be given advantageously: Peruvian bark, in powder, or infusion, chamomile or Virginia snake-root tea, or any other bitter that may be on board. Elixir of vitriol may be given, either with the above medicines, or added to sugar-and-water, as a common drink. Nitre or saltpetre, in vinegar, or lemon-juice, has been used successfully in scurvy. The sores in the mouth may be washed with a mixture of powdered charcoal, two or three teaspoonfuls in a tumblerful of water, acidulated with vinegar. To the sores on the body, which are often large and painful, discharging an offensive matter, the charcoal or yeast poultice will prove very beneficial.

As prophylactics, to prevent the occurrence of this disease, attention to cleanliness and ventilation of the ship, to the general comfort of the men, and a full supply of suitable provisions, including lime or lemon-juice, tartaric or citric acid, good water, potatoes, cabbages, and fresh meat, when procurable, are of the utmost importance.

SMALL-POX.

This is a fever commencing with sickness of stomach, headache, pain in the back, and general lassitude, followed on the third day, by an eruption on the skin, more or less abundant, which in the course of a week, inflame and suppurate. In some cases a similar eruption is observed on the mucous membrane lining the nose and mouth, with swelling and inflammation of the adjoining parts. Small-pox is called distinct, when the pustules can be counted, are not very numerous, and do not run into each other. It is called confluent, when the pimples are so close as to run into each other, on the third or fourth day of the inflammation. There are generally considered to be four stages through which it passes.

1st. That of incubation, from the reception of the matter or germ of the disease, to the commencement of fever, generally from seven to fourteen days, and often from the commencement, there are languor, lassitude, restlessness at night, with impairment of digestion.

2d. The irritatory or eruptive fever, occupying three or four days.

3d. The stage of maturation, extending from the development to the full maturation of the pustules, and varying from five to nine days.

4th. The stage of decline, drying up, and secondary fever.

In a great proportion of cases, the eruption of small-pox develops itself as follows:—Minute pimples, sensibly elevated above the surface of the skin, first on the face and forehead. The sides of the nose, chin, and upper lip generally display the earliest pimples, then some appear on the neck and wrists, the trunk and thighs are then attacked, and finally the feet.

In all cases of distinct small-pox, the constitutional symptoms are materially lessened after the full development of the eruption, the pain of the back, the vomiting, and the headache abate, or disappear, and other symptoms are sensibly diminished.

The ordinary symptoms of small-pox, are, about the ele-

venth day from the reception of the small-pox germ, rigors or chilliness, or one severe shivering fit, pains in the head, back, and limbs, a quickened pulse, a hot skin, with dryness, or at times a disposition to sweating. The pain in the back is at times sudden and excessive. There is generally great pain in the head, and frequently the stomach experiences the force of the first symptoms, as acute pain, accompanied by incessant vomiting. This irritable condition of the stomach frequently continues until the eruption has extended over every part of the body. There is great prostration of strength. The greater or less pain in the back, and loss of muscular power, are almost diagnostic of the severe or mild character of the disease. The pulse is generally full and strong, and the skin hot and dry, although occasionally there may be considerable depression of pulse, with moisture. In many cases there is excessive itching, the patient being scarcely able to refrain from tearing the skin and pustules. The face is much swollen, and the eyes closed, or nearly so, for several days before the bursting of the pustules. In some cases the lining membrane of the nose, mouth, and neighboring parts, is more or less covered with pustules, adding greatly to the suffering and danger of the case.

Treatment.—It is an acknowledged fact, that the eruption, when abundant, cannot be checked or diminished by any remedial means in our possession, and when moderate, little interference is required with medicine. Our efforts should be confined to moderating arterial excitement, when too great, to supporting the system when required, and relieving such urgent symptoms as may arise during either of the stages. Heroic remedies, instead of being beneficial, prove rather prejudicial in this disease.

The cooling, or antiphlogistic plan of treatment, should alone be pursued, although in some cases of a violent character, or at the close of one of an ordinary kind, nutritious, and even stimulating food, with tonics, may be required to support the general strength, and enable the force of the disease to be resisted.

Bleeding from the arm, or by cups or leeches from other parts, as may be judged more appropriate to the symptoms

of each case, is often required. The bowels should be freely acted on by one or more doses of calomel, or blue mass, followed by repeated doses of saline aperients, as Seidlitz powders, or salts and magnesia, and cooling injections of salt and water, or cold flaxseed tea and oil.

To moderate the fever in aid of the above, repeated doses of spirits of nitre, or Mindererus, alone or combined, to which may be added a small portion of tartar emetic, or antimonial wine, will prove useful. Cooling, acidulous drinks should be given as freely as the patient may desire. The room should be kept cool, with no more covering than the feelings of the sick call for, and the linen of bed and body may be changed daily.

When the pustules come out slowly, with continued sickness of stomach, or vomiting of bilious matter, or a constant desire so to do, an emetic of ipecacuanha, and a mustard poultice or blister applied to the abdomen, with hot stupes to the feet and ankles, become necessary.

If the head is much affected from the beginning, bleeding from the arm, and cups or leeches to the head, one or more doses of calomel or blue mass, and frequent injections to act freely on the bowels, are indispensable.

If, at the commencement of the disease, or after a few days, there is reason to apprehend a severe attack, the hair should be cut close, or shaved, to keep the head cool by cold applications, thus endeavoring to prevent delirium. In all cases, let the room be kept dark and cool, allowing a free current of air, obviating a draught by curtains though not around the bed, and allow nothing but mild mucilaginous cooling drinks.

To allay the irritation or itching, often excessive, cool mucilaginous washes may be used, and if much matter be discharged, some dry powder, as rye flour, or rice flour, with lapis calaminaris, may be dusted over the pustules.

To prevent pitting, many local applications have been tried, generally with little success, and even the utter exclusion of light, though always to be enforced, will often fail of success.

Among the ordinary, and to a certain extent, useful local applications may be noticed, cold cream, spermaceti cerate

with powdered calamine, rubbed with it. Collodion has been tried without much success, during the different stages, as well to limit the extent of pustulation, as to prevent pitting.

For the purpose of preventing pitting, Dr. Crawford, of Montreal, after much experience, speaks in the highest terms of a saturated tincture of iodine, locally applied daily, or more frequently to the eruption. The earlier commenced, the more efficacious. Besides relieving the excessive itching, it is thought by Dr. C. to diminish the inflammation and ulceration, and moderate the fever.

In conclusion, it may be said, that for ordinary cases of small-pox, keeping the bowels open by a dose of calomel or blue mass, followed by saline laxatives and injections, determining to the surface, and keeping down fever, by repeated doses of spirits of nitre or Mindererus, and antimonial wine or tartar emetic, the free use of cold mucilaginous lemonade, not interfering with nature, but aiming to second her in all stages, will prove most successful.

SUN STROKE.

The effects produced by the long-continued action of the direct rays of the sun, are so closely allied to those of inflammation of the brain, and apoplexy (which see), of which it is a frequent cause, and the treatment required being that laid down for those diseases, it is unnecessary to do more than refer to them. Let it be distinctly understood, that it is of importance to commence the treatment as soon as possible.

TETANUS, LOCKED JAW.

This is a disease in which certain muscles of different parts of the body are in a state of rigid contraction, with paroxysms of more or less severe painful spasms, alternating with irregular intervals of more or less complete relaxations, without coma, or any essential disturbance of the mind. Tetanus is caused generally by punctured wounds, the most trifling injury from nails, splinters, paring corns, or extracting teeth, being capable of producing it, while from those of the most severe character, not the slightest

tetanic symptom will appear. Tetanus generally develops itself from four to fourteen days after the injury. In some cases, the disease commences suddenly, while in others, by far the most common, the person feels some time after a wound, generally in the hands or feet, a stiffness in the back of the neck, with dryness and soreness of the throat, and at times violent pain under the sternum, or breast-bone. The closure of the jaws is next observed, which may occur suddenly, or be preceded by pain, weakness, and stiffness in the muscles of the jaws. Frequently, the jaws are so powerfully closed that it is impossible to open them. There is often a powerful spasmodic action of the muscles of the throat, which prevents swallowing. A violent paroxysmal stabbing pain frequently occurs, when the disease is fully formed, in the region of the diaphragm. The face becomes distorted, and the spasm about the muscles of the thorax is so violent, that respiration is difficult and painful. The eyes are generally fixed, and suffused with tears. The mind generally unimpaired. The pulse is full and hard at the commencement, becoming more frequent and feeble towards the close of the disease. There is commonly a profuse perspiration through all the stages of the disease. The bowels are almost invariably so torpid, as to resist the action of the most powerful cathartics. The ordinary duration of the disease, when terminating fatally, varies from two to six or eight days.

Treatment.—Upon the first appearance of the least symptom of tetanus, the wound should be enlarged, the part soaked in hot lye for an hour or more, and stimulating applications, as oil of turpentine, or the decoction of cantharides, repeatedly applied to the part, after which an ointment of Spanish flies, basilicon, and oil of turpentine, should be inserted into the wound, and covered with a warm emollient poultice, renewed every hour, to hasten and encourage suppuration. Where much febrile excitement exists, large and frequent bleedings from the arm are necessary, and should be followed by the repeated application of cups to the breast and spine, as well to draw blood locally, as to act as revulsives. The amount of blood to be lost, and the frequency of application of the cups, must

necessarily depend upon the violence of the symptoms, and the condition of the patient. The use of warm and cold baths, as well as affusions of cold water, have been tried in this disease, occasionally with advantage. A large dose of calomel, combined with opium and ipecac., should be given early in the disease, and followed by large and repeated doses of the strongest senna tea, until the bowels are thoroughly evacuated; copious cathartic injections should be used at the same time, to assist the operation of the cathartic. Throughout the course of this disease, it is necessary to give opium by the mouth, and by injections, in the largest doses, and laudanum, or a solution of morphia, are to be preferred, as in many cases, where solid opium had been given, it has been found after death in the stomach, unacted upon. The enormous quantity of one quart of laudanum has been given in the course of two days to a lady laboring under this disease, who recovered. The use of wine, in large quantities, has been strongly recommended in the latter stages, but to be of any service there should be scarcely any limit as to quantity. By many physicians, the greatest reliance is placed upon the most powerful applications to the spine, after frequent cuppings to that part, and for this purpose cotton, steeped in spirits of turpentine, or spirits of wine, laid along the spine and set on fire, the actual cautery, or the strongest blisters, painful remedies as they may appear, should alone be depended upon. Nauseating doses of tobacco infusion have been recommended, and may, in certain cases, prove useful by the extreme prostration and relaxation caused by it. The carbonate of iron, in as large doses as can be swallowed, has been recommended by Dr. Elliottson. Should the disease be overcome, and convalescence commence, a nourishing diet may be allowed. During the continuance of the disease, in consequence of the difficulty of swallowing, fluids alone can be taken, and they may be, whatever will prove most agreeable to the sufferer.

At certain stages of the disease, there is much to be hoped for from the internal and external use of chloroform or pure ether, and several cases of its successful administration have been recorded.

Dr. T. F. Betton has lately published in the Medical Examiner, of Philadelphia, a well-marked case of Tetanus, perfectly cured by the inhalation of a mixture of three parts of sulphuric ether, with one of chloroform.

In conclusion, it may be said, that in the treatment of this severe malady, the main reliance should be placed in general bleeding, the frequent application of cups to the breast and spine, large and frequent doses of powerful cathartics, with blisters to the spine, large and frequently repeated doses of laudanum, an unlimited use of the best wine, and the administration of chloroform by inhalation, and by the mouth.

TOOTHACHE.

This, though frequently dependent upon constitutional derangement, which should be attended to, is generally a purely local affection, and will be removed by the following local applications:—

Equal parts of alum and common salt in fine powder, sprinkled on moistened cotton, and inserted in the cavity, or laid upon the decayed tooth.

Common salt dissolved in vinegar, and held in the mouth for a few minutes.

A few drops of oil of cloves, or cinnamon, creasote, pure or diluted with alcohol, on cotton, inserted in the cavity.

A grain of camphor, and a grain of opium, made into a mass, and inserted in the cavity.

Tincture of benzoin, a few drops.

Camphor dissolved in oil of turpentine.

Powdered alum and spirits of nitre.

The mouth rinsed with hot brandy and water.

A ginger or mustard poultice applied to the cheek often cures.

URINE, INCONTINENCE OF.

This frequent complaint of childhood, generally one of habit, occasionally proceeds from disease of or a stone in the bladder, in which cases the removal of the cause can alone effect a cure. Among the causes may be named debility of the sphincter muscles of the bladder, the pre-

sence of worms in the lower bowels, or, at times, a general derangement of the digestive organs.

Treatment —In ordinary cases the following will generally succeed. Do not allow much or any drink for several hours before going to bed, have the urine passed before retiring, and after having been in bed a few hours, wake him to have the bladder emptied. Daily bathing in cold water, a cold shower bath, and rubbing the back morning and evening with a moderately stimulating liniment, will prove serviceable. A mustard poultice, dry cupping, or an occasional blister to the lower part of the back, will be at times required. The tincture of cantharides, in doses of five to ten drops, three or four times a day, gradually increasing the quantity, until some heat or pain is perceived in making water, will often succeed. It should be stopped as soon as these effects are produced, and should strangury occur, mucilaginous drinks, with spirits of nitre, two or three grains of camphor, and a few drops of laudanum, may be given. An injection of laudanum is one of the best remedies for strangury, as well as for the disease itself. The extract of nux vomica, in doses of one-half to two grains, two or three times a day, is strongly recommended. In debilitated habits, the use of tonics, those of iron preferred, and other means calculated to improve the general health, will offer the greatest chance of effecting a cure.

URINE, RETENTION OF.

An inability to discharge the contents of the bladder, or retention of urine, is attended with excessive pain, and a sensation of weight or fulness in the region of the bladder, and the lower part of the back, accompanied by a frequent desire to pass urine. The retention is seldom complete, as at each effort a few drops will be passed with much straining. Above the pubis, when the retention has continued some time, there will be felt a roundish tumor, and upon pressure the pain is produced. If not relieved, fever is excited, the bladder becomes excessively distended, and in some cases has been ruptured.

Treatment.—Thirty or forty drops of spirits of nitre and

ten to twenty of antimonial wine every hour or two, with copious draughts of flaxseed tea, or gum-water, and the application of a large poultice of bread and milk, flaxseed meal, hops, or chamomile flowers, over the lower part of the abdomen, will in most cases cause a flow of urine. An injection of fifteen to thirty drops of laudanum, in a wine-glassful of any bland fluid, will prove successful in cases where spasm appears to be the cause, and is always to be used if great pain is present. Cupping the back will often be required, followed by a mustard poultice or blister. A few drops of the muriated tincture of iron, oil of turpentine, or tincture of cantharides, and the free use of an infusion of uva ursi, buchu, or water-melon seeds, have been used successfully.

If much inflammation exists, bleeding from the arm, or locally, by cups or leeches, must be resorted to. The introduction of a catheter to draw off the water, is sometimes required, and in cases of fever, it is not only necessary, but should be repeated more or less frequently.

URINE, SUPPRESSION OF.

This is, generally speaking, a symptom of other diseases, as fever, inflammation, local injuries, and certain forms of dropsy. It is always to be regarded with great anxiety, and where, after a continuance of several days, coma supervenes, a fatal termination of the case may be anticipated. In such cases the perspiration has frequently a urinous odor.

Treatment.—If the state of the pulse and general condition warrant it, bleeding from the arm is necessary, otherwise cupping over the region of the kidneys is to be resorted to, and repeated according to the urgency of the symptoms. Put the patient in a warm bath, or the feet in hot mustard-water, and apply a large warm poultice over the region of the kidneys, a cathartic of cream of tartar and jalap, or senna and salts, followed by injections of warm water, soap-suds, or flaxseed tea, are to be given, and repeated according to circumstances. A mustard poultice to the loins is often serviceable, and a fly blister to the same part is frequently necessary. Repeated doses of

spirits of nitre and antimonial wine, with mucilaginous drinks, are to be used. An infusion of juniper berries, parsley, water-melon seeds, or wild carrot, with spirits of nitre, often act powerfully on the kidneys.

Small doses of oil of turpentine with the use of diluent drinks are often successful. Proceeding, as suppression of urine does most generally, from other diseases, the various indications must necessarily depend upon the condition of the system, and the nature of the disease.

VOICE, LOSS OF.

This proceeds from a variety of causes, and may prove temporary or permanent.

It may result from derangement of the digestive organs, be an attendant upon ordinary catarrhal affections, or the effect of various diseases and organic affections of the larynx.

Treatment.—In the majority of cases, resulting from a cold or its causes, the following will generally prove sufficient. Frequent doses of any of the expectorant or cough medicines, as hive syrup, syrup of squills, syrup of ipecacuanha, onion or garlic syrup, in conjunction with a mustard or ginger plaster, or frictions with a stimulating liniment to the throat. In some cases an emetic of ipecacuanha will be required; while in those which prove intractable to the above, the application of leeches or cups to the front or back of the neck, followed by a fly blister, must be resorted to. In chronic cases, twenty or thirty drops of balsam of copaiva several times a day have been found successful. In recent or mild attacks, medical inhalation may be tried in conjunction with the above; and in those of a chronic character, especially if depending upon laryngeal disease, the employment of various remedies by medical inhalation will alone effect a cure. In two severe cases, of weeks' duration, after the failure of other means, a perfect cure was effected by using the following by inhalation: Ext. conii ℥ii; balsam copaiva ℥vi; tinct. assafœtida ℥i; sulphuric ether ℥ii; oil turpentine ℥iv; tinct. camphor ℥iv; camphor water ℥ii. See art. Inhalation. When loss of voice occurs in those of debilitated constitutions, the use of tonics internally, regular exercise in the fresh air, cold salt

and water, and liniments, morning and night, to the throat and breast, with friction with a coarse towel, or hair glove, will be found indispensable.

WHITLOW, FELON.

This is an inflammation at the end of one of the fingers, exceedingly painful, and much disposed to end in an abscess or suppuration. The pain is intense, often extending up the hand and arm, and frequently causing an enlargement of the glands of the arm-pit.

Every effort should be made to arrest the progress of this apparently trifling ailment, which may result from the most trifling causes, or no evident one.

The following local applications are sometimes used with success: common brown soap, warmed and spread upon a rag. Immersing the finger in warm water, gradually increasing its heat to the extent that can be borne by the addition of boiling water.

Rubbing the part frequently with mercurial ointment, keeping it constantly applied. The constant application of sulphuric ether to produce intense cold by its evaporation. Enveloping the end of the finger with a strip of blister plaster.

When the pain is excessive, leeches applied to the part, and the bleeding encouraged by immersing the finger in warm water, followed by a blister, will prove successful. As soon as fluctuation can be perceived, indeed often before, the part should be lanced, carrying the incision down to the bone. Should it be evident that matter has formed under the nail, this should be scraped thin with a piece of glass, and the incision made through it. During the progress of this acutely painful disease, large and repeated doses of laudanum, as well by the mouth as by injection, are required, to procure ease and sleep. Where the disease evinces a tendency to extend up the arm, and the inflammation is necessarily great, the loss of blood and active purging will be found indispensable.

WORMS.

There are five species of intestinal worms.

1. Ascaris Lumbricoides, a round worm, resembling the

common earthworm, inhabiting the small intestines, though frequently passing upwards into the stomach, or downwards into the large intestines, often discharged by vomiting and purging. This species is generally found in the earlier periods of life, and at times exists in great numbers.

2. Ascaris Vermicularis. Threadworm. As its name imports, a small and slender worm, from one quarter of an inch to one inch in length, more frequently found in children, occupying principally the rectum or lower bowels. The number occasionally found is immense.

3. Tricocephalus Dispar. Long Threadworm. From one and a half to two inches long, inhabiting the large intestines, principally the cæcum.

4. Tænia Solium. Common Tapeworm. More frequent in adults than in children. The movements of this worm are sometimes felt in the bowels.

5. Tænia Lata. Broad Tapeworm. Generally shorter than the other species of tapeworm.

Worms are most frequently found in children of a debilitated and unhealthy constitution, though the most robust and healthy are not exempt. The only positive symptom of their presence, is their expulsion from the bowels, though the following may generally be considered to indicate their presence. Frequent and irregular colicky pains, with, or without diarrhœa, a swelling and hardness of the abdomen, constant picking of the nose, itching of the fundament, nausea, a foul or sour breath, giddiness, grinding of the teeth, frequent starting during sleep, a variable and capricious appetite, at times voracious and insatiable, at others entirely wanting; vomiting often occurs, and the discharges from the bowels are irregular. There is often an uneasy feeling at the pit of the stomach, frequently abated by eating. The eyes have a heavy look, and there is frequently a dark-colored ring around the lids.

Treatment.—Active purging is one of the most certain means of expelling worms, though there are many substances which exercise a destructive influence upon them, and are beneficially resorted to, either before the use of, or combined with, cathartics. A dose of calomel at bedtime, followed the next morning by one of oil, senna tea, or rhu-

barb and magnesia, repeating this every third or fourth day, employing in the intervals pink-root tea, wormseed oil, or some other anthelmintic, will generally succeed. This plan of proceeding having been continued sufficiently long, or until no more worms are expelled, there may be given a combination of tonic and anthelmintic remedies, with the view of preventing their reappearance, and for this purpose I have never found any remedy to succeed more uniformly than a proper combination of common salt, rust of iron, supercarbonate of soda, and ginger.

For the threadworm, injections are peculiarly appropriate, and an infusion of any bitter herb, lime-water, soap-suds, assafœtida rubbed down with warm water, or the tincture of aloes, may be employed.

A suppository, made of powdered aloes and rhubarb, mixed with lard or butter, introduced into the rectum at night, followed the next morning by an injection of salt and water, or senna tea, is often successful.

The oil of turpentine is one of the best anthelmintics for all species of worms, and may be given in doses varying from one teaspoonful to one or two tablespoonfuls, alone, or combined with mucilage or castor oil. It is frequently given by itself in the morning, not allowing any drink, until it begins to operate, when a dose of castor oil should be given, and followed by an abundance of mucilaginous drinks. The unpleasant symptoms, strangury, and nausea, are not more apt to follow a large than a small dose.

A strong decoction of the bark of the pomegranate root has proved successful in all species of worms. It is made by boiling one or two ounces, in a quart of water, down to a pint. Dose, one or two tablespoonfuls every half hour, or hour, for four or five doses. Sickness, faintness, giddiness, and trembling, sometimes follow the use of this medicine, if given too strong, or for too long a time, in which case, it will be proper to suspend its use for a day, and commence again with smaller doses.

Professor H. S. Patterson speaks in high terms of the efficacy of the oil of pumpkin seeds for the expulsion of the tapeworm. The seed may be made into an emulsion with warm water or milk, or the expressed oil may be used. A tablespoonful may be given several times a day.

PART IV.

SURGERY.

THERE are few diseases, if any, properly called Surgical, which do not, at some stage, require medical treatment; though it has been customary to arrange under the head of "Surgery" the many sudden cases, or accidents, which require prompt and preliminary mechanical assistance, followed immediately, or at a later period, by such remedial measures as may be indicated by the recurring symptoms, whether local or general, or combined, which may be said to be uniformly the case.

BRUISES, SPRAINS.

The inflammation having been reduced, bathing in cold salt-and-water, or pouring it upon the part, from a pitcher, will be found serviceable. In conjunction with this, the use of liniments more or less stimulating, as opodeldoc, soap liniment, volatile liniment, to all of which laudanum and tincture of arnica may be added, should be resorted to, three or four times a day, for fifteen or twenty minutes each time. Should the joint remain weak, the application of cold water, friction with a stimulating liniment, and a bandage, to overcome or prevent the swelling, so apt to occur after these injuries, and give an artificial support to the part, enabling nature to perform her part in restoring its natural strength, must be duly persisted in.

If severe, and attended with great pain, bleeding from the arm is sometimes required, and the application of leeches will generally prove serviceable. Keeping the

bruised part, or sprained joint, for some time in warm water and wood-ashes, will frequently afford great relief;—more so, generally, than when cold water is used; but here the feelings of the individual should not be neglected.

BURNS, SCALDS.

Some of the applications to burns and scalds do good by protecting the part from the action of the atmosphere, while others are intrinsically beneficial. Among the more common and useful local applications are the following: Immersing the part in very cold water, or pouring it upon the burnt surface for some time; equal parts of lime-water and sweet oil, scraped potatoes, carded cotton, lead-water; soap made into a lather, and applied with a shaving-brush over the surface, renewing it as soon as it begins to dry; a solution of gum Arabic in water; dredging the surface with flour, and covering it with a piece of linen. One of the best applications to a burn, the skin being broken, is an ointment of spirits of turpentine and basilicon, in equal parts, called Kentish's Ointment, applying it, spread on linen rags, on the burnt surface alone. In some cases, violent febrile action occurs after a considerable burn, requiring bleeding and other antiphlogistic remedies; while in others, so depressed are the powers of the system, that the free exhibition of stimulants becomes necessary.

The following have been strongly recommended as excellent applications to burns: Six ounces of olive oil, and the whites of four eggs, beat well together, and spread over the burn, with a feather, or pledget of soft linen. It should be applied frequently, in order that there be formed a complete covering, which will not fall off for six or eight days, when, almost always, the burn will be found healed, and a new skin perfectly formed. Or, sweet oil, three tablespoonfuls, yellow wax, one ounce, and the yolks of two eggs, hardened under hot ashes. Dissolve the oil and wax with a gentle heat, then add the yolks of the eggs, and stir until the whole acquires the consistence of an ointment. It should be spread upon linen, and applied twice a day.

A thin paste of wheat flour and water, spread or poured over a burn, has been recommended as a quick mode of relieving the pain.

DISLOCATIONS, LUXATIONS.

A dislocation is the removal, by muscular or other force, of the head of a bone from its articulating cavity. This is rendered evident by the sudden deformity or unnatural appearance of the joint, the pain and inability to move the limb, and the almost uniform shortening of the limb.

In all dislocations, there is necessarily more or less tearing and stretching of the ligaments, and muscular and nervous fibres, around the joint, followed by more or less inflammation, and effusion into the parts.

To reduce a dislocation, make extension and counter-extension by gentle, steady, and continued pulling of the limb, endeavoring all the time to replace the head of the bone in its natural position. At times, so powerful is the contraction of the muscles, that, before reduction can be accomplished, it is necessary to bleed largely, to use the warm bath, and keep up nausea for some time, with repeated doses of a solution of tartar emetic. The bone being replaced, a bandage must be applied, and kept on for one or more weeks, and perfect rest of the limb enjoined.

After the reduction of a dislocation, it will generally be proper to apply cloths wet with cold water, or weak lead-water, should heat or pain in the joint be complained of; and in that case, a bandage should not be applied until those symptoms of inflammation have disappeared.

DISLOCATION OF THE LOWER JAW.

This may happen on both sides, though much more frequent on one alone. It is most frequently caused by violent gaping; and a blow will produce it. One or both heads slip from their sockets, the jaw becomes fixed, the mouth wide open, and the power of speaking lost.

The replacing is performed by surrounding the thumbs with one or more thicknesses of leather or muslin: the patient being seated, and the operator in front, each thumb is to be placed on the last tooth. Forcible downward pressure being made, at the same time drawing the jaw forward, the bone will resume its natural position with a sudden and loud snap. Pieces of wood, or the handles of forks, may be used instead of the fingers. At times, the

most favorable position for the patient will be on the floor. The operator, standing behind, supports the head, being enabled to exert greater power.

DISLOCATION OF THE COLLAR-BONE.

This, though of rare occurrence, does sometimes result from blows or falls. The reduction is effected by drawing the arms and shoulders backward and outward, the operator simultaneously replacing the end of the bone. A bandage should then be applied over the shoulder, and under each arm, the elbow kept close to the side, and the arm supported in a sling for two or three weeks.

DISLOCATION OF THE ARM.

This is generally produced by falling, and jerking up the elbow, though it may occur from other causes. When it has once occurred, a slight cause is apt to reproduce it. When present, the arm cannot be brought close to the side, nor raised to a level with the shoulder. The dislocated arm is shorter than the sound one.

In reducing this luxation, extension is to be made by the arm above the elbow, the forearm being flexed, and counter-extension against the acromion process of the scapula, the upper part of the shoulder. By a forcible extension, the head of the bone will slip into its place.

Sir Astley Cooper commended the following course as generally successful in recent cases. The patient should be placed in a recumbent posture upon a table or a sofa, near the edge. A wet roller is bound round the arm, immediately above the elbow, upon which is tied a handkerchief. Then, with one foot resting on the floor, the elbow is separated from the side, and the heel of the other foot is placed in the armpit. The arm is then steadily drawn for three or four minutes, when the head of the bone will be easily replaced.

DISLOCATION OF THE FOREARM.

This most generally occurs backwards, when the forearm is half-flexed. Every effort to extend it causes great pain, the olecranon, or point of the elbow, projecting, and being

higher than usual. It is reduced by setting the patient in a chair, the operator placing his knee on the inner side of the joint, in the bend of the arm, takes hold of the wrist, bends the arm slowly and forcibly, pressing at the same time on the forearm with his knee.

DISLOCATION OF THE WRIST.

This is of rare occurrence, and must be reduced by forcible, steady, and continued extension of the hand, with gradual pressure, to push the end of the bone into its place.

DISLOCATION OF THE THIGH.

This may occur in four different places, the most frequent being upward and outward, and downwards and inwards. This luxation is very difficult to reduce, from the powerful action of the muscles, and the construction of the joint. To reduce that most common, or upward and outward, place the patient on his back, on a table covered with a mattress. Pass a strong band between the pudendum and the luxated thigh, and secure it to a post, or staple, to make counter-extension.

Make extension by securing a folded sheet, or band, above the knee, with a roller, which is given to the assistants. Extension being made, the operator endeavors to replace the head of the bone. After the reduction, the diet should be low, and patient kept perfectly quiet for some time.

DISLOCATION OF THE KNEE-PAN.

This accident, though of rare occurrence, may take place outward or inward, the former being the most frequent. The bone will readily be observed out of its natural position, and there is pain, stiffness of the joint, and an inability to walk, or attended with great pain when attempted.

The reduction is to be effected by bending the leg forward, straightening the knee as much as possible, and with the hand the bone should be forced back into its natural position. Cooling applications, and perfect rest are required, and no effort to walk made for several weeks.

DISLOCATION OF THE ANKLE-JOINT.

This may occur inward, outward, forward, and backward,

that outward much the most frequent. When this accident does occur, the small or outer bone of the leg is generally found fractured, a few inches above the ankle-joint.

It is to be reduced by forcibly and steadily drawing downwards on the heel and front of the foot, and forcing it into the natural position.

DROWNING.

In reference to the course to be pursued to resuscitate those who have been drowned, the following successful case, originally published in the Boston Medical Journal, will sufficiently indicate what should be done in such cases:—

"Most frequently cases of drowning occur where it is difficult, and often impossible, to procure medical aid; and in such, where time is of primary importance, it cannot be questioned that the narrative of the course pursued in successful cases, may prove more valuable than the ordinary description of treatment.

"In the month of August, 1818, being on a visit to a relative, Mr. J. S., on the North River, I was aroused by the cries of the domestics that a black child, two years old, was missing; and fears were entertained that he had fallen into a cistern, extending under ground, near the house. I endeavored to find and haul up the child by means of a long pole, having a hook attached, used for drawing buckets of water. Not being able to discover the body, I had to grope about the bottom of the cistern, hoping to entangle the dress in the hook. After several minutes thus employed, I was fortunate in finding the hook attached to something, and drawing it up, was gratified to see the child suspended by its frock. On examination, I found respiration and circulation extinct, the surface livid, and death present, as far as the functions of the vital organs were concerned. Now, what was to be done to endeavor to restore the action of the lungs and heart? I was entirely unacquainted with any mode of proceeding, not having commenced the study of medicine. Mr. S. was absent, no physician within several miles, and only two colored females present to render such services as I might order. Fortunately there was a copy of the Edinburgh Encyclopædia in

the library, and after ordering the clothes to be removed, the body exposed to the sun, and constant friction with the hand, I referred to the article Drowning, to find what ought to be done. A hurried glance over the pages induced me to go to work with hot friction, hot water, and breathing into the nostrils. Hot water as a bath, hot ashes to rub with, were freely and unceasingly used, at the same time I continued the inflation of the lungs, through the nostrils, alternated with gentle pressure on the breast, to imitate, as much as possible, natural respiration. Without being able to specify the precise time the child had remained under water, it was thought, taking all the preliminaries into consideration, that about fifteen minutes had elapsed prior to the employment of any means for resuscitation. One thing is certain, by the watch, between two and three hours elapsed that were unceasingly employed in rubbing, bathing, and breathing into the nostrils, before the least sign of returning animation was manifest, when to my great joy there was one gasp, a strong inducement to continue my efforts. Several minutes passed before a second occurred; after which, the respiration and circulation were fully re-established, and the life saved. Some idea may be formed of the amount and force of the heat and frictions, when it is stated that a considerable portion of the skin of the limbs and body was found to have been abraded, requiring for some time mild unctuous applications to restore the parts to a healthy condition. After hours of hard labor in the hot sun, I had the satisfaction of seeing my efforts crowned with success; but little did I imagine I was inflicting so extensive an injury to the skin. It is most probable had I known what might have resulted, I should not have been enabled to report the successful issue of the case. Under similar circumstances, I would have no hesitation in pushing the same means to a similar extent, if necessary.

"In conclusion, I think I may fairly recommend, in cases of drowning, the following course to be pursued.

"1st. Remove the wet clothes, and see that the mouth and nostrils be free from foreign substances.

"2d. Place the body in a warm room, allowing a free circulation of air.

"3d. Continue uninterruptedly, for many hours, if necessary, friction with hot ashes, salt, or sand, and give a hot bath, if practicable, using friction all the time.

"4th. Simultaneously with the above, continue unceasingly the forcing of air into the lungs, by blowing into the nostrils a full volume of fresh air with the mouth. In doing this, the lips should be closed with the fingers, to prevent the escape of air by the mouth. Immediately after each full insufflation, the breast should be gently pressed with the hand to imitate natural respiration.

"The respiration and circulation being re-established, place the person in bed, give small quantities of mild nourishment, and, if necessary, a little wine or brandy."

FOREIGN BODIES IN THE GULLET, PHARYNX, AND ŒSOPHAGUS.

The arrest of a piece of meat, or other substance, in the upper part of the throat, will prevent respiration, causing suffocation and death, in a few minutes, unless relief be afforded.

The first thing to be done is to examine the throat, and remove with the fingers, forceps, or hook, the impacted body. A few slaps on the back often afford relief. Dr. M. Hall directs pressure to be made on the abdomen, and a forcible blow to be given with the flat of the hand on the thorax, to induce an effort similar to expiration. Œsophageal vomiting takes place, and the foreign substance is dislodged. If the body is lower down, a probang, which is a piece of whalebone, with sponge firmly attached to one end, may be passed down, to force the substance into the stomach.

If the substance cannot be removed quickly, and the respiration is difficult or arrested, our only resource will be to open the trachea, or larynx, to allow air to enter into the lungs, when, generally, the foreign substance will be ejected forcibly upwards.

Twenty-five years since, called in haste to a laborer suffocated by the stoppage of a piece of beef in the throat, unable to extract it, and respiration suspended, I at once opened the trachea, and instantaneously the beef was forcibly driven into the mouth. Two hours continuous efforts

to re-establish respiration, with opposition, instead of aid from bystanders, proved unsuccessful. A few moments earlier, his life might have been saved. Fish, and other bones, pins, coins, &c., may be swallowed, and sticking in the passage, or scratching in their descent, will cause pain and uneasiness, which may continue some time after their removal without creating alarm. A few swallows of sweet oil, vinegar and water, mush, or water, may assist their passage into the stomach, when soft food, as mush, gruel, with a few doses of castor, or sweet oil, will facilitate their discharge from the bowels.

FOREIGN BODIES IN THE RESPIRATORY ORGANS.

The passage of a foreign substance, as food, buttons, coins, stones, or other articles, into the air-passages, may cause death in a few moments by the arrest of respiration; or, by remaining in the parts, may lay the foundation of a serious disease, which, sooner or later, will terminate fatally.

When small bodies enter the windpipe, great difficulty often attends their removal, and success is by no means certain. Nausea and vomiting often occur, causing the body to be ejected, and a mild emetic is at times advisable, and may prove successful. Suspending the individual, head downwards, will sometimes allow the body to escape. Opening the trachea, and reversing the natural position of the body, will often be required. Mr. Brunnel, of Thames Tunnel celebrity, while amusing some children, had a half sovereign to slip into the larynx, and lodge in the right bronchus. At the expiration of three weeks, the trachea was opened, but it was not until the end of six weeks that the coin was forced out of the mouth by a fortunate movement of the coin, which enabled it to be forced or slide out by a sudden effort. Until that moment every effort had been tried to effect the dislodgement of the coin, by change of position and other means, without avail. In many cases, all that can be done, will be to combat such symptoms as may arise. The plan of making pressure on the abdomen, and a forcible blow on the thorax with the flat of the hand, may be tried in the first instance, aided, if not immediately

successful, by putting a finger or a quill down the throat to induce efforts to vomit, thus causing the foreign substance to be ejected.

BROKEN BONES, FRACTURES.

Fractures are simple or compound. A simple fracture is when a bone is broken in one place, without an external wound. When broken in more than one place, it is called comminuted. A compound fracture is when, with a broken bone, there is a corresponding wound of the soft parts adjoining, the ends of the bone protruding or not. The danger of the case in this last is greater than in the former, and is necessarily increased according to the amount of bruises of the soft parts, or the comminution, or shattering of the bone.

In the treatment of broken bones, the essential objects are the placing or restoring the fractured ends to their natural position, and the keeping them so by such means as may be appropriate to each case, to endeavor to avert unfavorable symptoms, and to adopt proper measures to remove such symptoms as they arise. The healing, or uniting of a broken bone, is entirely a work of nature; man's business is so to adjust the parts, that nature will be able to accomplish her object.

The means to be employed in cases of fracture, are, extension, counter-extension, and setting or adjusting. Extension is the pulling the broken part in a direction from the trunk, to place the ends of the bone in their natural position. Counter-extension is the pulling of the broken bone in the opposite direction from extension, or retaining the limb, or body, firm, so as to prevent either from being drawn by the extending force.

Extension and counter-extension being properly attended to, setting is the placing the ends of the bone accurately together by the operator, using all suitable means to keep them so.

An important principle to be attended to in the reduction of fractures, will be the placing the limb in a position to relax the most powerful muscles connected with the broken bone, as their action principally hinders the replace-

ment, and constantly tends to displace the ends of the fracture once adjusted. After the fractured ends have been placed in apposition, it is necessary to retain them there by bandages, splints, and a proper position of the limb.

The above having been duly attended to, suitable means are to be employed to prevent or remove unfavorable symptoms. For this object, the diet should be strictly antiphlogistic. Costiveness is to be overcome by injections, which are generally preferable to medicine given internally; and the use of a bed-pan is indispensable. The bandages for the first few days should be frequently wet with cold water, as tending to lessen the disposition to inflammation and swelling. The ordinary signs of a fractured bone, are, a severe and sudden pain, an alteration, though not uniformly the case, of the form or natural appearance of the part, with most generally a shortening of the limb.

If the fracture be in an extremity, we find an inability to move the limb without severe pain at the injured part, an inequality of the skin covering the bone, with crepitation, or a grating noise, produced by rubbing the ends of the fractured bone together.

Having succeeded in properly adjusting the ends of the bone, and brought the limb into its natural position by means of gentle though steady pulling upon the lower end, while the upper part is held in a fixed position by assistants, or by being made fast to a fixed point, a bandage, from two and a half to three inches wide, must be accurately, but not too tightly applied; after which, splints of wood or pasteboard are to be laid along the sides of the limb, filling up the inequalities with a sheet folded smoothly, or compresses of muslin, which should be rather longer and broader than the splints. The splints are to be retained in their position by a bandage, or, as in fracture of the thigh, with five or six pieces of tape passed around and tied.

FRACTURE OF NOSE.

In this fracture, generally produced by a severe blow, there is frequently much bruising and crushing of the soft parts.

The proper course of proceeding is to introduce a round

body into one or both nostrils, as a lever, and endeavor to replace the fragments by placing a finger on the ring of the nose to prevent their being pushed too far out. A piece of adhesive plaster should be applied on the outside, which will be all that is required in ordinary cases, though occasionally it will be necessary to apply a roller around the head, with pledgets of soft linen on each side of the nose.

FRACTURE OF LOWER JAW.

The symptoms are, a severe pain at the time of the accident, an inequality perceived on passing the finger along the base of the jaw, and an unevenness of the teeth. Should much swelling occur before being seen, greater difficulty is experienced in determining the nature of the accident.

To reduce a fracture of the jaw, it is necessary to shut the mouth, and forcibly push upwards the lower fragment, until the teeth come in contact with those in the upper jaw, and keep them so by passing a roller around the head, securing that by a few turns of the roller around the back part of the neck and front of the chin. The patient should be nourished for fifteen or twenty days on spoon victuals, sucked between the teeth.

FRACTURE OF RIBS.

This generally occurs from falls or violent blows. It is ascertained by acute pain in breathing, and by a careful examination, a grating noise upon pressure. When difficult to decide, as in fat subjects, it is proper to apply the bandage, as though perfectly manifest. In simple fracture, it is only necessary to keep the parts at rest by passing a bandage six inches wide, several times around the chest, as tightly as can be borne, the bandage being kept in its place by a shoulder-brace. When the lungs have been wounded by a fragment of bone, there is generally spitting of blood and violent coughing. Inflammation is excited, fever occurs, accompanied by difficult respiration and other symptoms of inflammation of the lungs. Copious venesection with the usual remedies for inflammation are to be used.

FRACTURE OF CLAVICLE, COLLAR BONE.

This bone, from its position, is frequently broken, the

fracture commonly occurring near the middle. The fragments are generally displaced; the external, or that nearest the shoulder, is drawn downward by the weight of the arm, and the inner portion is found riding over the humeral. The arm of the affected side falls over upon the breast, and cannot be rotated nor raised to the head. He leans to the affected side, which has been considered an almost distinguishing feature of the fracture. To reduce this fracture, fold a sheet smoothly, to form a pad eight inches long, five broad, and three thick; place it along the side, the upper end well in the armpit. Retain it firmly in its position, with a bandage passed around the body. Bring the arm down over the pad (this movement brings the ends of the fractured bone in contact), and the forearm across the body. Pass a bandage around the arm and body, beginning at the elbow and carrying it to within four inches of the shoulder. Lay a small pad or compress of linen, three inches square, and one-third of an inch thick, over the fractured part, and pass a strip of bandage over it (like a suspender), pinning the ends to different parts of the bandage around the body. Support the hand and forearm in a sling, and keep the whole on for five or six weeks.

FRACTURE OF THE ARM.

This occurs most frequently near the middle of the arm. When transverse, and near the middle, little derangement is seen in the length or form. When oblique, the limb is shortened by the action of the muscles, and there is considerable alteration in the shape of the arm.

To reduce this fracture, seat the patient on a chair, make counter-extension by drawing on the hand of the sound side, and extension on the forearm of that broken. Adjust the ends of the bone, and keep them so by a bandage beginning at the hand, continuing it to the shoulder and around the body, under the sound arm to the top of the shoulder, when three or four pasteboard splints placed along the limb, and the bandage carried over them, will complete the adjustment. Place the forearm across the breast, and support it with a sling.

FRACTURE OF THE FOREARM.

One or both bones may be broken. The symptoms are, pain, augmented by every motion of the hand, inability to turn the arm, mobility at the place of fracture, and deformity of the part. When occurring near the wrist, it has been mistaken for a dislocation.

To reduce this fracture, restore the natural appearance of the part by extension, counter-extension, and compressing the muscles situated between the bones, to force the fragments in a lateral direction ; place a thick compress on the outer and inner side, extending the length of the hand and forearm; over these apply two splints, equal in length and breadth to the compresses, and finish by passing a bandage over the splints, to maintain the compresses and splints in position.

FRACTURE OF FINGER.

In this, which sometimes occurs, pass a narrow bandage around, and apply a small splint before and behind, which are to be kept on by the bandage.

At times it is necessary to apply a splint to the entire hand, to prevent the motion of the fingers.

FRACTURE OF THIGH.

This is attended by mobility at the fractured part, an inability to stand on the limb, or move it without extreme pain. In treating this fracture, the bed must be prepared, and the fixtures laid down, before the patient is placed on them.

The bandage for this fracture must be cut into pieces long enough to pass around the limb, one end overlapping the other four or five inches. In laying these pieces down on the mattress, the one to be applied last (that nearest the hip), must be put down first, the upper edge of the lower strip to cover about an inch of the upper one. There must be four splints, one of wood, to extend from the armpit to six or eight inches below the foot, another, of wood, to reach from the crotch along the inside, to the end of the first, and two of binder's board, two inches wide and nine long, for the under and upper part of the thigh. Six or

eight pieces of tape, a yard long, are to be laid on the mattress, over them a splint cloth, a piece of muslin one yard and a half long, and a yard wide; over the middle of this, longitudinally, is placed one of the small splints, and across this, is to be laid the bandage of strips. Two bags, filled with chaff, or finely cut straw, to extend from the hip to the foot, four inches wide, are also required. If these cannot be obtained, flannel or tow may be used in lieu of them. The patient is now carefully laid on the mattress, the fractured thigh placed accurately upon the bandage of strips. Extension and counter-extension being now made, and the ends of the bones brought into their natural position, the strips of bandage are brought over the front of the thigh and crossed, beginning with that next the knee. The two long splints are now rolled in the splint-cloth, and brought alongside the limb, when the bags are placed between them and the thigh and legs, to prevent irritation, and fill up the inequalities. The fourth splint is now laid on the top of the thigh, the tapes drawn around the splints, and tied.

FRACTURE OF LEG.

One or both bones of the leg may be broken at any part between the knee and the ankle, that of both bones being most frequent.

In a transverse fracture, the bone is easily reduced and kept in its natural position with two splints and a bandage well applied. In general, the following will prove most suitable to continue permanent extension and counter-extension, when the fracture is of an oblique character. Two splints, to extend from the knee, six or eight inches below the sole of the foot. A hole is cut near the lower end of both splints, and four small holes in the upper end. A piece of wood, eight inches long, to fit in the holes at the bottom of the splints, is to be prepared. In applying this apparatus, lay the patient on his back, extension and counter-extension made as usual. A pillow, upon which is arranged a bandage of strips, is placed under the leg, two pieces of tape are then secured by several turns of a roller, on each side of the leg below the knee. These tapes are to be passed

through the four holes in the upper end of the splints, and tied. A silk handkerchief is next to be passed around the ankle, crossed on the top of the foot, and tied. The fracture being reduced, the bandage of strips is applied neatly to the leg, and the silk handkerchief next tied over the cross-piece connecting the two splints, by which any degree of extension may be permanently applied.

FRACTURE OF PATELLA, KNEE-PAN.

This generally occurs transversely, from falls or blows, or by the powerful action of the muscles of the leg. Occasionally, the tendon above or below the bone is fractured, and not the bone. In either case, the treatment is the same. The great object to be attended to in this fracture, is to maintain the fragments in apposition, that the substance connecting them may be rendered as short as possible, to preserve the perfect motion of the joint. To accomplish a cure in this case, Dr. Dorsey always found the following simple plan to succeed: A piece of wood, half an inch thick, two or three inches wide, and long enough to extend from the buttock to the heel. Near the middle of this splint, two bands of strong doubled muslin, a yard long, are nailed at a distance of six inches from each other. Upon this splint, covered with compresses of flannel or linen, to fill up the inequalities of the limb, place the patient's leg and thigh. The heel now being raised, apply a bandage two inches wide, and eight or ten long, commencing at the ankle, and extending to the knee. The upper fragment of the bone is now drawn down as near as possible to the lower one, and a compress of linen is placed above it, over which, several turns of the bandage are passed obliquely under the knee, so as to resemble the figure 8, when the bandage is carried to the top of the thigh, and brought down over the splint, the band attached to the splint being left free.

These bands are now to be used, more completely to fix the fragments, the lower one, round the thigh, above the upper fragment, and the upper strap below the lower fragment, and secured by pins. No motion should be attempted before the fourth or fifth week, and even then it should be done very gently. Dr. Neill, of Philadelphia, strongly

recommends the use of strips of adhesive plaster, three quarters of an inch wide, to extend from above the upper fragment obliquely under the knee, and similar ones from below upwards, confining the action of the muscles of the thigh by rather broad strips of plaster circularly around the thigh. A short hollow splint of binder's board, applied to the ham, and retained by a bandage, completed the arrangement.

HANGING, RESUSCITATION FROM.

The immediate cause of death in those hanged, is the want of air in the lungs, which is necessary to carry on respiration, and effect those changes in the blood indispensable to the continuance of life. As soon as an individual, hanged, has been cut down, he should be kept in an erect position, and bled from the arm, jugular vein, or carotid artery, to relieve the congestion of the brain, which always necessarily occurs. Every means should be used to encourage the flow of blood, by placing the arm in, or rubbing it with warm water, at the same time using every exertion to bring about natural respiration, by blowing a full volume of air gently into one nostril, closing the other and the mouth, immediately afterwards making pressure upon the sides, or breast, to imitate the natural respiration. This should be repeated every few seconds, for some time, or until all hope has fled. Cold water must be kept constantly applied to the head, the feet and legs should be kept in hot water, and stimulating liniments should be applied to the legs and arms, and a large warm poultice to the abdomen.

TOE-NAIL INVERTED.

This painful complaint generally depends upon an inflammation of the soft parts around the side of the nail, most frequently of the great toe, attended by suppuration and fungous granulations, causing excessive pain and lameness.

The most frequent cause is cutting the nail too short, or trimming too much that portion of indurated flesh, so often found on either side of the great toe-nail. By this, the soft parts, already irritated or inflamed, are forced by the pres-

sure of the boot or shoe, in walking, against the edge of the nail, thus increasing the inflammation, and causing the disease.

Treatment.—Introduce gently under the edge of the nail a small piece of lint, dry, or spread with any simple ointment, to prevent friction, and morning and evening bathe the feet in a solution of carbonate of soda in cold water, or diluted chloride of soda.

If this does not succeed, drop into and upon the sore, a few drops of a solution of lunar caustic, ten grains to an ounce of water, for three or four evenings, continuing the lint, and a strip of linen around the toe, will rarely fail to effect a perfect cure.

In some cases, until a cure is effected, it is necessary to cut a hole in the shoe, corresponding to the part, and afterwards to avoid tight boots or shoes.

ULCERS.

They are of various kinds, and may occur on any part of the body, though most frequently found on the legs. In persons of a morbid habit of body, from whatever cause proceeding, the accidental abrasion of the skin will often terminate in an ulcer, which will remain a long time and prove difficult to cure. The mildest dressings, as cold water, a cold poultice, simple cerate, with perfect rest, will generally prove sufficient in simple ulcers. When of long standing, more stimulating applications are necessary, as basilicon, citrine, or red precipitate ointment, a solution of lunar caustic, or bluestone, chloride of soda, diluted or pure, applied once or twice a day; a cold poultice of bread and milk, powdered elm bark, or flaxseed meal, kept on for a few days, will frequently dispose the ulcer to heal, when simple dressings may again be tried. The exuberant granulations, proud flesh, require to be touched occasionally with lunar caustic, by rubbing a piece over them, or using a strong solution in water, or by the application of finely powdered burnt alum. The application of strips of adhesive plaster, around the limb and across the ulcer, with a bandage properly applied, will often succeed in curing those of long standing. It is important in the treatment of ulcers, of whatever character,

to pay attention to the general system, and as they are most frequently found in persons of irregular habits, with a deranged condition of the digestive organs, mild cathartics, a regular healthy diet, and a continued use of the extract of sarsaparilla, to which may be added iodine and iodide of potash, or, at times, minute portions of corrosive sublimate, with some gentle tonic, will be found requisite to effect a cure. In some ulcers, the application of leeches in the neighborhood, repeated every few days, will be found to materially assist the operation of the other remedies.

WOUNDS.

They are of different kinds, as incised, punctured, contused, lacerated, poisoned, or gunshot, and are more or less dangerous, according to their extent, the age and constitution of the patient, as well as the season of the year. Occasionally, the most trifling wound will terminate fatally, while others of the most serious and extensive character, will be perfectly and rapidly recovered from.

In all wounds of whatever character, the first and important step is to arrest the hemorrhage, which is often profuse, and then to remove any foreign body that may have been introduced.

WOUNDS, CONTUSED.

In these wounds, more or less injury is done to the deep-seated parts, even when the skin has not been broken. The smaller vessels are generally ruptured, and blood is effused into the surrounding parts, and under the skin.

Treatment.—A simple bruise or contusion will frequently require nothing more than cold lotions, or a cold poultice and perfect rest; if more severe, and attended by inflammation, local bleeding by leeches, or general bleeding from the arm, with cooling laxatives, will be necessary.

When the inflammation has subsided, repeated friction with some stimulating liniment will prove serviceable, and pressure, by means of a well-applied bandage, will tend to support the parts, cause the absorption of the effused blood, and prevent the subsequent swelling, so apt to occur. Pouring cold water from a height upon the parts, is found

of great benefit after the disappearance of the more prominent symptoms.

WOUNDS, INCISED.

Remove any foreign substance that may have been forced into the wound, bring the edges into contact, and retain them there, by one or more adhesive strips, a few stitches, and, if required, by a bandage, or roller, passed around the part. The wound being large, upon, or near a joint, it is necessary, either before or after the dressing, to apply a splint to keep the lips of the wound from being torn asunder by any sudden motion. In most cases this will prove sufficient, but should the wound require dressing, the most simple ointment, spread on linen, should be applied two or three times a day. At times, fever and inflammation may supervene, in which case, general or local bleeding, cooling laxatives, cold poultices, or lotions, and a low diet, are necessary.

WOUNDS, LACERATED.

They are those in which great injury is done to the parts, by being torn or mangled, whether by machinery, or other powerful force, applied suddenly, or by the body falling from a height upon stones, or other hard bodies.

These wounds bleed very little, no matter how large the surface torn. Gangrene and secondary hemorrhage are apt to follow lacerated wounds.

Treatment.—The removal of extraneous bodies, and the suppression of hemorrhage, should any exist, are the first things to be attended to. The edges of the wound are then to be approximated closely, and retained by adhesive straps, for, although in most cases, adhesion will but partially occur, it is important to keep the parts in their natural position, and allow nature a fair opportunity of displaying her powers, which are great, and of a restorative character. A soft emollient poultice should then be applied, and renewed several times a day, until suppuration has been established, when simple dressings will be proper.

WOUNDS, POISONED.

They are produced, by the introduction into the system,

through the external surface of the body, of certain vegetable substances, the healthy, or morbid secretions of animals, or by opening, and examining dead bodies.

The sting or bite of bees, wasps, mosquitoes, and other insects, is of the nature of poisoned wounds; cold lotions, touching with spirit of hartshorn, or the strong aqua ammonia, and avoiding rubbing, or scratching, are generally sufficient.

The bite of the rattle-snake, and that of some other species, will, unless immediately attended to, quickly prove fatal. A ligature must be drawn tightly around the limb, between the wound and the body, then cut out the wound, wash freely, and suck the wound, or apply a cupping-glass, for some time, after which, a strong solution of lunar caustic, or the nitric acid, is to be thoroughly applied, and the wound covered with a warm poultice. The spirit of hartshorn may, in these cases, be given internally, freely, and frequently.

That poisoning of the system resulting from a wound received in examining a dead body, is of a dangerous character, generally terminating fatally. As soon as discovered, enlarge and wash the wound freely, suck it for some time with the mouth, touch freely with a strong solution of lunar caustic, or the pure nitric acid, and apply a warm poultice, to produce and keep up suppuration.

PUNCTURED WOUNDS.

These are made by sharp-pointed instruments, frequently causing intense pain, and proving very dangerous. The danger from these wounds is not always proportioned to the size of the instrument, or depth of the wound, for that generally fatal disease, tetanus, often results from the slightest wounds.

Treatment.—In a common punctured wound, it is seldom necessary to do more than apply a soft, warm, or cool poultice to the part for a few days, when the wound will generally be found to have healed, but should the part swell, with an evident formation of matter, it will be proper to open it with a lancet. In other cases of a more severe character, it is proper, in the first place, to arrest the

hemorrhage, which, however, is not often great, then to remove any foreign substance which may have been introduced, and if this cannot be effected without enlarging the wound, it is proper to do so; after this, wash the parts with tepid water, bring the edges of the wound together, and retain them there by strips of adhesive plaster, and apply a cold poultice, or pledgets of linen, soaked in cold water. When the wound has been caused by a rusty nail, or jagged instrument, giving rise to an apprehension of tetanus, it will be safer, besides enlarging the wound, and soaking it well in warm lye, to pour oil of turpentine, or a strong solution of lunar caustic into the wound, or to touch all parts of it with a stick of lunar caustic, and then apply a compress saturated with the oil of turpentine over the wound, and repeat the application of the turpentine several times a day. Should much pain, heat, throbbing, and swelling occur in the wound, with febrile symptoms, a warm emollient poultice should be applied, and renewed every few hours. General and local bleeding, with frequently repeated cathartics, are often required. In wounds of this character, perfect rest and an unstimulating diet should be enforced. Upon the first appearance of symptoms indicating the approach of tetanus, the most energetic plan of treatment should be immediately commenced.

WOUNDS OF THE EAR.

Wash the parts, draw the edges of the wound together, retaining them in place by as many stitches as may appear necessary. Apply a piece of linen, spread with simple cerate, over the ear, and a bandage around the head. If a part of the ear has been removed, and can be found, it, after being well washed in warm water, should be accurately applied in its proper place, and retained by stitches and a bandage, as in some cases such proceeding has been followed by perfect reunion.

WOUNDS OF THE FACE.

The greatest efforts should be made to heal these wounds by the first intention, so as to prevent the formation of scars. The edges of the wound must be brought together,

and retained in apposition by one or more strips of adhesive plaster. It is, at times, indispensable to employ one or more stitches to keep the parts in contact, and then to apply the plaster over them.

WOUNDS OF THE SCALP.

Shave the hair from around the wound as closely as possible, wash off any foreign substance, bring the edges together, retain them there with strips of adhesive plaster, or stitches, if necessary, lay a compress over it, and apply a bandage around the head. Should fever result, bleeding, both general and local, free purging with salts and magnesia, are necessary, and nothing should be allowed but cold gum-water, flaxseed tea, or pieces of ice.

POISONS TAKEN INTO THE STOMACH.

Whatever may be the poison, accidentally or designedly introduced into the stomach, the first and most important step is to produce copious vomiting, by the exhibition of one of the following articles. Tartar emetic dissolved in water, antimonial wine, sulphate of zinc, sulphate of copper, a tablespoonful of flour of mustard, alone, or with an equal quantity of common salt, in a pint of warm water, an infusion of tobacco, "half a drachm in a pint of hot water." Dose, a wineglassful every five, ten, or fifteen minutes, or a pinch of snuff in a tumblerful of warm water. Whichever be selected, and that soonest obtained is always the best, large and frequently repeated draughts of water, warm or cold, or any mucilaginous drink should be given; for, as has been correctly remarked, whatever poison has been swallowed, the first and best antidote is an abundance of water, which, by diluting and producing free vomiting, is most apt to throw it off. Putting a feather, or one of the fingers down the throat, will often cause vomiting, and may always be resorted to in order to hasten the operation of any of the above emetics. In some cases, particularly from opium, or other narcotic poisons, the use of the stomach pump must be resorted to, and in these cases the frequent affusion of cold water over the whole body, and keeping the patient awake by compelling him to keep

moving, or even flagellation, have succeeded as auxiliaries. A very interesting case is related by Dr. Buck, who injected into the stomach of an individual, poisoned by a large dose of laudanum, after other means had failed, a pint of common vinegar, and immediately afterwards, four heaping teaspoonfuls of saleratus, previously dissolved in half a pint of warm water. The effect was immediate; profuse vomiting took place, and life was saved. In many cases it is probable that this would prove the quickest and most certain manner of removing poisons from the stomach.

In cases of poisoning where the substance used cannot be discovered, a Pharmaceutist of Montpellier has judiciously advised the employment of the following powder, made by mixing equal parts of calcined magnesia, charcoal, and sesquioxide of iron, the precipitated carbonate, remarking that it is perfectly innocuous, and that the ingredients are antidotes to the most active and common poisons. It should be given freely, after copious vomiting by the ordinary means, and in any quantity that may be required.

ARSENIC.

One of the most violent and fatal poisons.

Symptoms.—A sharp metallic taste in the mouth, constant ptyalism, or spitting, nausea, and faintness, followed by a burning pain in the stomach, with continued vomiting. The matter discharged is, after some time, of a yellowish green, or bilious color, frequently tinged with blood. There is also a distressing sensation of heat, dryness, and tightness in the throat, with an inextinguishable thirst. The voice is hoarse, and the articulation of words difficult. Diarrhœa often supervenes, with great anal irritation and tenesmus. The abdomen becomes painful and hard, the irritation frequently extending to the urinary organs, producing a deep-seated pain in the region of the bladder, with, at times, gangrene of the genital organs. The pulse is small, quick, and weak, the skin cold and clammy, the countenance collapsed. The tongue and mouth are furred, white spots are seen on the palate and fauces, delirium and convulsions supervene, and death soon closes the scene. In some cases,

the symptoms of irritation are mild; but faintness, syncope, coma, or stupor and convulsions usher in death with no less certainty.

Treatment.—Demulcent drinks, as milk, white of eggs and water, flour and water, should be freely given, together with whatever emetic is at hand, "white vitriol, blue vitriol, ipecacuanha, salt and mustard, or warm water," to produce and encourage vomiting; if the patient cannot swallow, the same must be given by the stomach-pump. The hydrated oxide of iron, fully proved to be a perfect antidote, should now be given freely, one or two tablespoonfuls every five or ten minutes, mixed with water, until the urgent symptoms are relieved. As this preparation of iron cannot always be procured, and valuable time would be lost in preparing it, the precipitated carbonate, or sesquioxide of iron, has been shown by the Royal Academy of Medicine of Paris to be equally an antidote, and should be given in larger doses than above specified, mixed with water. The common rust of iron, although not equal to either of the above, has been given with success, and should be freely administered, when the other preparations cannot be readily procured.

Tobacco has been said to be an antidote to arsenic; two cases are related by Dr. R. Emerson, which he received from Dr. Eastman, of poisoning by arsenic, cured by a strong decoction of tobacco. Neither nausea, vomiting, nor purging were produced, although the individuals, when in health, were extremely susceptible to the action of tobacco.

COPPER.

Poisoning from the preparations of this mineral, particularly the acetate, verdigris, generally occurs from accidents, caused by want of cleanliness in cooking in copper utensils.

Symptoms.—A coppery taste in the mouth, headache, pain in the bowels, vomiting and purging, cramps in the legs, and at times severe pains in the thighs, as also jaundice, which last is never produced by arsenic, or mercury. The pulse is small, quick, and weak, and coma, paralysis, and tetanic convulsions usher in death.

Antidotes.—The whites of eggs and iron filings should

be given freely after the stomach has been thoroughly emptied by powerful vomiting with any active emetic, or what will answer still better, the antidotes and emetic may be mixed with some mucilaginous fluid or water, and given at the same time.

CORROSIVE SUBLIMATE.

A powerful corrosive poison.

Symptoms.—A burning heat in the throat, vomiting, purging, violent pain in the stomach and bowels, excessive thirst, a cold clammy sweat, violent cramps, a weak and frequent pulse, great prostration of strength, and sometimes salivation, with inflammation of the mouth, and offensive breath. Diarrhœa, with at times a discharge of blood, frequently attends.

The antidote to corrosive sublimate is the white of eggs, which, beat up with water, should be freely given, and vomiting produced, and maintained for some time, by the exhibition of mucilaginous drinks, or warm water, to a portion of which, some emetic, as ipecacuanha, white or blue vitriol, mustard, and salt, has been added. If the whites of eggs cannot be procured, milk, or wheat flour, mixed with water, should be used instead. Peruvian bark in powder, has been recommended as an antidote, and should be given in water.

If vomiting cannot be speedily and effectually produced, the stomach pump must be resorted to.

OXALIC ACID, SALT OF SORREL.

The resemblance in appearance of this violent poison to the much-used Epsom salts, has frequently caused it to be taken in mistake, and from its rapidity and certainty of action, death has often resulted. The taste of oxalic acid is very acid, while that of salts is extremely bitter, which should prevent such mistakes.

Symptoms.—Violent pain in the fauces, throat, and stomach soon appears, generally followed by vomiting; the skin becomes clammy, and the pulse weak or imperceptible. Languor and great debility, with drowsiness, or torpor, shortly appear, and death is not far distant. When taken

very much diluted, it is not so irritating, but little less poisonous.

The antidotes to oxalic acid are, common chalk, or the *carbonate* of magnesia, and when these are not at hand, it has been recommended to use plaster scraped from a wall. So rapid is the action of this acid, that the proper mode of proceeding, is to mix, as soon as possible, either of the above antidotes, if vomiting has not commenced, with one or two tablespoonfuls of ipecacuanha, or any other emetic, with a large quantity of water, and cause the patient to drink freely till vomiting occurs, which should be encouraged by giving large draughts of warm water, with the antidotes for some time, or until a certainty exists of all the poison having been ejected.

TARTAR EMETIC.

When given in a large dose, or, at times, in a small one, owing to idiosyncrasy, a case of which I have seen, poisonous symptoms may supervene, as violent and continued vomiting, severe pain in the stomach and bowels, with profuse purging. The strength is suddenly and greatly prostrated, the pulse very weak and slow, and cold clammy sweats break out over the body.

Antidotes.—After having given freely of mucilaginous drinks, to wash out the stomach, recourse should be had to Peruvian bark, in powder, infusion, or tincture, or the infusion or tincture of galls, given in water, until there is a certainty of no more poison remaining in the stomach. A mustard or spice plaster, or flannel steeped in spirits of turpentine, should be applied to the stomach, calves of the legs, or soles of the feet. A pill of one grain of opium, or thirty or forty drops of laudanum, may be given by the mouth, or in a small quantity of mucilage, or warm water, as an injection. One or two teaspoonfuls of hot brandy, with cinnamon, cloves, and ginger infused into it, may be given occasionally with great advantage.

NARCOTIC POISONS.

These produce symptoms indicating derangement of the nervous system, as pain of the head, vertigo, partial, or

total blindness, stupor or insensibility, paralysis, or convulsions, profound coma, and death.

OPIUM.

In consequence of the effects of opium, or its preparations, depending upon the age, habit, idiosyncrasy, and present condition of the individual, it is impossible to state with certainty what quantity is necessary to occasion death, some cases having been reported, where small or moderate doses had destroyed life, while in others large quantities had been taken with impunity, or but little effect.

Symptoms.—Taken in a moderate quantity, the first effect of opium is of a stimulating character, exciting the mind, and adding strength to the muscular system, succeeded, sooner or later, by a drowsy or lethargic state, which, if the quantity has been too large, or an idiosyncrasy exists, may prove poisonous, and terminate fatally. The quantity having been great, the stage of excitement has been considered wanting, or of so short duration as to escape notice, and stupor or insensibility soon appears. The breathing is slow, sometimes stertorous, the pulse generally weak and irregular, the muscles are relaxed, the face pale and tranquil, and the body usually bathed in a copious perspiration. The pupil is generally contracted. The operation of solid opium is generally thought to display itself within an hour, and that of laudanum or other liquid preparation sooner. Death may occur in from four to ten or eighteen hours.

Treatment.—There being no antidote to opium, upon which perfect reliance can be placed, the first step is to expel it from the stomach, and, as one of the effects of this narcotic is to render the stomach insensible to the action of remedies, it is necessary to administer unusually large doses of emetics, as thirty or forty grains of white or blue vitriol, tablespoonful doses of ipecacuanha, or mustard and salt, or indeed of any article which is at hand calculated to effect the object. It is frequently necessary to administer still larger doses of these emetics as injections where swallowing cannot be performed, or when vomiting does not soon occur. It is often for the same reasons necessary to resort to the use of the stomach-pump.

The stomach having been thoroughly emptied of its contents by powerful vomiting, we must guard against and remove the subsequent effects proceeding from a quantity of opium having remained in the stomach some time, as drowsiness, torpor, or insensibility, by keeping the patient awake by the application of mustard and cayenne pepper, or other irritants, to different parts of the body, keeping him in motion, and in some cases switching with a number of twigs. It is probable, in this stage, the moderate application of cowhage to different parts of the body would, by its intense action, answer perfectly. Throwing bucketfuls of cold water repeatedly over the body, is a valuable remedy. Moderate quantities of a powerful stimulant and excitant may be given occasionally, and eight or ten drops of ammonia, with thirty or forty of the tincture of cayenne, or a few grains of the powder mixed with the ammonia and water, will answer. It is well to remember, that after the unpleasant symptoms, as well as all apparent danger, have been removed, the individual doing well, he should be watched closely, instances having occurred under similar circumstances where a renewal or relapse of the comatose symptoms has taken place, and terminated in death. In cases of poisoning from narcotics, as opium, after the respiration has been suspended, the action of the heart will be found to continue, though exceedingly weak, for some time, hence the necessity, in such cases, of continuing our endeavors to keep up artificial respiration, as the experiments of Sir B. Brodie fully prove that the restoration of the action of the lungs can be effected by such a course. The fact of a recovery having been effected by Mr. Whateley, of a man poisoned by a large dose of solid opium, by long-continued artificial respiration, adds double value to the above opinions of Sir B. Brodie.

GONORRHŒA.

This disease commences with an itching or tingling sensation at the orifice of the urethra, which becomes slightly red and swollen, in consequence of the inflammation; this is succeeded by a constant desire to pass water, attended with scalding or burning, frequently severe. There is often considerable soreness along the under part of the

penis, extending its whole length. Generally, within two or three days, there is observed a discharge proceeding from two or three inches of the membrane lining the urethra from the external orifice, at first whitish, subsequently of a deeper-colored matter, becoming, when the disease is violent, yellowish or greenish, and, at times, slightly tinged with blood. The glans, or head of the penis, and the prepuce, or foreskin, sometimes swell considerably, and painful erections, termed chordee, occur during the night. In severe cases of gonorrhœa, a painful swelling of the testicles, and considerable tenderness in one or both groins, will occasionally occur.

Treatment.—At the commencement of gonorrhœa, it is of importance to operate freely upon the bowels, and for this purpose, the different saline laxatives are recommended. There is no one superior to Epsom or Rochelle salts—one or two tablespoonfuls in a tumbler half full of water,—and great benefit results from a repetition, every one or two days, of a small portion of the same, or one or more Seidlitz powders, to keep up a cooling effect upon the system.

The use of some mild diluent drink has always been considered necessary in the treatment of gonorrhœa; Sir Astley Cooper, and other eminent medical authorities, are of opinion that too much cannot be drank. For this purpose, flaxseed tea, or elm bark, or pith of sassafras, infused in hot or cold water, answers well. The following I have found the most serviceable: Juniper berries, five ounces; cream of tartar, two ounces; supercarbonate of soda, one ounce; to be well bruised and mixed. Upon two tablespoonfuls of this mixture pour one pint and a half of boiling water: allow it to stand a few hours, when it will be ready for use. All of the clear liquid should be taken during the day, and sweetened, if preferred. Ricord, and others, allude in strong terms to the advantage resulting from perfect rest, particularly during the inflammatory stage.

The diet should be plain, diminishing the usual amount of animal food, avoiding greasy, rich, or spicy food, as well as stimulating drink of every description.

To allay the irritability of the bladder and urethra, as well as to remove the scalding in making water, a small

quantity of supercarbonate of soda, half a teaspoonful, dissolved in a half-tumblerful of water, to which should be added one teaspoonful of sweet spirits of nitre, and repeated three or four times a day, will generally prove successful.

There are cases in which the chordee occurs so frequently and so violently during the night, as to resist almost every remedial agent; should such occur, the following pills will generally succeed: Powdered camphor, twenty-five grains; powdered opium, five grains; ipecacuanha, six grains; to be mixed, and made into ten pills. Two to be taken on going to bed.

Cleanliness in this complaint cannot be too strongly insisted upon. The penis should be bathed two or three times a day in cold water, to which a tablespoonful of common salt may be added, this tends to lessen and remove the inflammation of the urethra, and prevent the painful nocturnal erections. It is important to remember, that after each bathing of the penis, or whenever it may be handled, it is *necessary* to wash the hands before wiping them on a towel, as many serious cases of inflammation of the eyes, and loss of sight, have resulted from a neglect of this precaution.

Gleet is a discharge from the urethra, caused by a diseased condition of the mucous membrane, after the subsidence of the inflammatory symptoms of gonorrhœa. It is generally unattended by pain or scalding in making water, although, even in this chronic stage, any great irregularity, or excess in eating or drinking, or sexual intercourse, will often produce a frequent desire to pass water, with a slight scalding and increase of discharge.

For the cure of gleet, no remedy has succeeded so uniformly and speedily as the *Extract of Copaiva, Sarsaparilla, and Cubebs,* with the daily use of one or two Seidlitz powders.

For obstinate cases of gleet, the following has been advantageously used in connection with the extract:—

℞.—Iodine gr. x; iod. potass. 3iii; dissolved in a bottle of the tonic extract of sarsaparilla. Dose, one or two teaspoonfuls four times a day.

A cold bath of salt and water applied to the penis twice a day, exerts a beneficial influence.

In the latter stage of gonorrhœa, or, after the subsidence of the acute symptoms, and especially in gleet, the use of mild injections has been strongly recommended, and there can be no doubt of their contributing to remove that chronic inflammation, upon the existence of which depends entirely this local discharge.

The following are the most serviceable injections:—

Sulphate of zinc, twenty grains; wine of opium, two drachms; rose-water, eight ounces.

Alum, sixteen grains; wine of opium, two drachms; rose-water, eight ounces.

Nitrate of silver, two to four grains; rose-water, eight ounces.

Sugar of lead, fifteen to twenty grains; rose-water, eight ounces.

Ioduret of iron, three grains; distilled water, six ounces.

Injections should be used from three to five times a day.

Great benefit results from the use of injections of flaxseed tea, or the infusion of elm bark, or pith of sassafras, adding fifty or sixty drops of wine of opium to the half pint, at the commencement of the disease.

The occasional introduction into the urethra of a metallic bougie, smeared with mercurial ointment, has frequently proved serviceable.

Ricord says, "During the continuance of a gonorrhœa, the patient must never be allowed to expose himself to the least fatigue, without wearing a *suspensory bandage.*"

SWELLED TESTICLE.

A painful swelling of one or both testicles, attended with inflammation, frequently sudden in its attack. There is commonly severe pain in the loins. Although generally resulting from an excessive irritation in the urethra, from gonorrhœa, or the use of too powerful injections for the cure of that disease, it may be produced by blows, or by a cold attacking those parts.

Treatment.—When severe, with considerable febrile action, bleeding from the arm will be proper. In ordinary cases a few leeches applied to the part, followed by warm

emollient poultices, repeated doses of salts and magnesia, to which has been added a few grains of tartar emetic to produce nausea and relaxation of the system, will generally effect a cure in a few days. If possible, the person should be confined to bed, and under no circumstances should he get up, without wearing a suspensory bandage. In the commencement of an attack, a powerful emetic has frequently arrested its further progress. Nothing but mucilaginous drinks should be allowed during the painful period of a swelled testicle. The inflammation and pain having been subdued, the frequent use of mild anodyne and stimulating liniments is serviceable to remove the hardness of the testicle which generally follows. One of the best is a mixture of soap liniment and laudanum, or sweet oil, spirits of camphor, and laudanum.

SYPHILIS, VENEREAL DISEASE.

This commences with one or more chancres, small sores with a hard base, and rather prominent margin, on the inner side of the prepuce or foreskin. There is frequently considerable swelling of the foreskin, which renders it difficult to draw it back and expose the sores. If not arrested in its progress, there occurs an inflammation, with enlargement of the glands in the groin, bubo, apt to proceed rapidly to suppuration. In neglected cases of long standing, or when not thoroughly cured, the throat becomes affected, and the lining membrane of the bones, as well as the bones themselves, become diseased.

Treatment.—Upon the first appearance of a chancre, it should be touched with a stick of lunar caustic, or a strong solution, to destroy the specific poison, and reduce it to a common sore, after which, the black or yellow wash may be poured upon the sore, two or three times a day, and then covered with simple cerate, or Turner's cerate, spread upon old linen. The *black wash* is made by putting two to four drachms of *calomel*, in eight ounces of *lime water*, and the *yellow wash*, from five to twenty grains of *corrosive sublimate* in the same quantity of *lime water*. When the foreskin cannot be drawn back, it is proper to inject under it Castile soapsuds, and then the yellow, or black wash, several

times a day. If the chancres do not speedily heal, three to five grains of blue pill, combined with half a grain of ipcac., and a quarter of a grain of opium, must be given two or three times a day, until the gums become tender, or the chancre heals, when the mercury should be discontinued. The bowels should be acted upon pretty freely, for a week or two, by moderate doses of rhubarb and magnesia, salts and magnesia, or sulphur and magnesia, and at the same time the patient must take a tablespoonful of the following mixture, three times a day, for several weeks. Iodin. ℈i; iod. potass. ℥iv; syr. ipecac. ℥iss; syr. rhei ℥iss; extract sarsaparil. ℥xiij.

Upon the first appearance of a bubo, besides continuing the above remedies, twenty or thirty leeches should be applied to the part, after which, a blister is to be put on, and renewed every few days, or dressed with a stimulating ointment, as the savin, or a mixture of basilicon, and Spanish fly ointment. If suppuration occurs, the matter must be let out by a free puncture with a lancet, as soon as distinctly felt, and the part dressed with a warm bread-and-milk, or flaxseed-meal poultice, for several days, after which, simple cerate, or Turner's cerate, spread on linen, may be used. The sore not healing, a weak solution of bluestone should be applied to it, once or twice a day, and dressed with either of the above ointments. A moderate diet, and keeping the bowels open, are important during the course of this disease. After the symptoms of this disease have disappeared, the use of the iodine and sarsaparilla preparation above given, should be continued for weeks, to prevent the possibility of a reappearance of any of the secondary symptoms, which are of frequent occurrence.

Should this companion and friend prove the means of alleviating the suffering incident to sickness, and conduce to the restoration of health, acknowledged to have been effected by the former editions, the time and labor expended in its preparation will be considered well employed.

EDWARD JENNER COXE, M.D.

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