



EPHRATA HYDROPATHIC INSTITUTE.

THE
AMERICAN IMPROVED
FAMILY PHYSICIAN,
OR
HOME DOCTOR.

A PRACTICAL EXPLANATION

OF

PATHOLOGY, THERAPEUTICS, SURGERY, MID-WIFERY AND
PHARMACY,

ON

REFORMED PRINCIPLES.

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BY

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INSTITUTION.

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INTRODUCTION.

I DRAW the attention of the people in general to the Reformation of Curatives, both Medical and Hydropathical, or rather prevention of disease, which is better than cure. I here mean to take up the system of Hygiene, or preserving health.

This subject is one of the greatest importance of any subject taken into view. What is a man with an ever failing health? And what is a man with a never-failing health? My friends I ask you all, what is better and of more value than good health? 'Thanks to the Lord I say that we are so much enlightened at present, as to have the knowledge of keeping in good health, principally, if we wish to live according to the laws of nature. I beg all men that have not yet learned how to preserve health, to take the subject into view and study it. For the Lord has made all things natural. He not only asks man to study the Bible, but learn all good things, and do them, and leave the evil. Also the Lord has created the world and all therein, and has pronounced it good; and why, if he has pronounced it good, shall we pronounce it bad? Also, the Lord has made man and woman, and directed them what to do; but did they do it, do we do it at present? No! we eat daily of that forbidden fruit, and we even do not know it. Therefore now is the time to learn, how to live to keep principally in good health. For as sure as we eat of this forbidden fruit, so surely we shall and will be sick. Some people are praying daily for good health? Reflect a moment and see whether it is not a sin to pray for good health if we don't live according to the laws of nature? We oftentimes destroy our health by nothing but what enters the mouth, both in eating and drinking. Can a man think it righteous, in destroying his good health which the Lord has given him; or, is it that man shall eat and drink such food as will destroy his vital powers, and impair his constitution? No! Sir, every man must try and learn his share and do it too, or else he will be damned both naturally and spiritually. For we cannot make a better comparison, than the following: The mouth is the tempter or Satan itself, for why does a man eat such food that he knows will injure his health? Because this very tempter—the mouth indulges in it, for the person oftentimes feels he has enough, but still he is tempted to eat more. On the contrary, we cannot make a better comparison than to

compare the mouth to the devil, and the good organ or stomach to the God which is within him. This good organ tells men often that they should not eat such or such diet; but, because it tastes so good to that temper which is the mouth, he will still eat of the diet, which the good organ or stomach, has often made known to him, that he felt bad when he eat.

I suppose you all understand what I mean. I mean that all men ought to learn daily more and more how to keep in good health. For what makes every generation in futurity weaker, and of more delicate health? Nothing, but the way of living too rich, &c., &c. All persons, young and old, ought to learn to control their appetites in eating and drinking, for if they do not they will surely be sufferers their life time, and haste their footsteps toward the grave. It is not the Almighty's wish that we shall be sufferers, neither in this, nor the world to come; but we are free men, we can build upon the sand or rock, but if we do not know how to build, what then? Why! we must learn how to build; and now is the time (to-day) to learn, for to-morrow it may be too late. A child when born gets its nourishment from the milk of its mother's breast; why does it not eat pork, and drink coffee and whiskey, &c.; why, because it is pure of sin, but as it passes on to maturity, it will eat and drink of all forbidden fruit and things, and become a sinner. Now to all parents who must raise these little innocent ones, your duty is to raise them in a righteous, and Godlike manner, both naturally and spiritually. A child taught from its youth up to maturity how to live will never forget it. So much on the subject of eating and drinking.

Further I will draw your attention to good pure air, cleanliness, exercise, &c. Man is told to keep clean, and pure of heart. A man with his stomach full of rich and indigestible food, a segar in his mouth, his body covered over with a crust of filth, sitting in a room heated with a red hot stove, his legs stretched over a chair, and his head on the floor, is a fit subject for disease. But a man with his head full of wisdom, his body covered with clean cloth, and the filth washed off of his skin, and his head out doors in good pure air, with a plentiful of digestible food and pure water, makes an active mind, cheerful, and of good health. Some people when they get sick keep themselves in a close room, with a roasted hot stove, so as to destroy all the good pure air, for fear they might take fever; they allow no water to come near them for fear of inflammation. They now send for the doctor; the doctor comes and feels the pulse, looks at the tongue, and says—Ah! you have a very high fever indeed, you must be bled about two quarts, you have too much blood, (he ought to say too much life) I must take it out to break the fever, (he means break nature down, and give the fever a fair chance,) also, I must give you a small dose of

medicine, not much, only one or two ounces of calomel or mercury, and if this physics too much, only one or two ounces of opium to stop the physic; now don't drink any cold water or else you will get sore jaws, (which is much worse than the fever itself); also take good care 'that you catch no cold, keep that stove hot, and don't bring any water into the room. Under these conditions the doctor leaves the patient, and returns the next day. Good morning! you are doing well this morning, the fever is broke, (but he means nature is broke,) you look quite well, indeed, you are really beyond the degree of inflammation, I suppose you feel rather a little weak? Yes, Sir! very weak. Ah! that is what we want, if we cannot reduce inflammation we cannot break fever. The Doctor will treat the patient in this manner for several months, and in the mean time give him opium to strengthen him, and if he gets strong, gives him a little calomel and bleeds him but a little, only one quart; so the Doctor continues, and at last the poor patient must die! Then the Doctor says: It was a hard case, I could scarcely keep him down low enough to recover. If by chance the patient does recover, his bones will ache. He then complains to his good Doctor, what shall I do, my bones ache so? Ah! don't you know I told you, you had a hard fever; the fever struck into your bones (not the fever but the Mercury.)

The Alcoholic Vapor Bath—Is superior to any other bath. For convenience and facility of application it is much preferable to the simple Water Vapor Bath. It is thus applied:—Place the patient on a solid instead of an open bottomed chair, with his feet in warm water and woolen blankets around his neck, and give him some warm drink, as catnip or sage; then pour some proof spirits, or any alcoholic fluid that will burn in a tea saucer or cup, and set it on fire. Take care to keep the vessel under the chair, as near the centre as possible, where there is no danger of scorching the patient or blankets—(woolen blankets are by far the best, as cotton will too soon take fire.) If the vapor gets too hot to be borne, raise the blanket at the side a little, and let in cool air. Let the patient drink warm tea till sweating starts; then give him cold water to drink as much as he can or likes. If the spirits give out before you get the patient sweated a good deal, be careful in filling the dish again, not to set fire to the bottle or else it will explode it; so if it is not fully burned out when you want to fill it again, blow it out and then fill it and set fire to it again. After continuing the operation long enough, or until the patient begins to feel fatigued or faint, wrap him in the blanket and put him to bed; it is generally best to let him sweat there without disturbance, for several hours. Then wash the patient off with tepid water, Either and tepid rub sheet, (see Introduction,)—or if the patient is too weak with the hand bath, (see Introduction) change

the linen or clothing. It is also a good plan to give the patient a tepid rub sheet or hand bath before the vapor bath. This mode of sweating is the best of all modes; they will not be weakened so much, and the greatest advantage is you can sweat a patient in this manner, and there is not the least danger of taking cold, if exposed in half an hour afterwards. When the patient is too weak to sit on a chair, an Alcoholic Vapor Bath may be given in bed by an apparatus fixed for conducting the vapor into the bed at the feet. It consists of a large spirit lamp, with a funnel inverted over it and attached to a sufficient length of tin tube with joints, so as to be placed and directed where desired, and a sort of cage made of half hoops to cover the patient from the neck to foot, and separate the bed clothes some six or eight inches from his body; this cage being placed over the patient, is covered with blankets, and receives the vapor and heat through the tube from the lamp. Dr. Armstrong highly recommends this measure in Rheumatic and a great many other Inflammatory diseases, fevers, &c., &c. I have used it in a great many diseases with the very greatest of success; and I believe it to be one of our first-rate remedies. Dr. Trall, in his *Hydropathic Encyclopedia* speaks nothing about the Alcoholic Vapor Bath, but the water vapor, which is of less value. He says the patient ought not to be sweated to the extent of causing dizziness, vertigo or fainting, nor should it run to extremes under any circumstances; but that it is so injurious as he makes it, I doubt.

Fomentations,—or Bitter Herbs boiled in water till the strength is extracted, taking out the herbs and enclosed in flannel cloth, and apply to inflamed parts of any kind will give immediate relief if repeated several times a day or more, if necessary. For this purpose take Hops, Catnip, Wormwood, Boneset, Lobelia, Stramonium or Jamestown weed, White Oak, &c.; put the articles in a vessel with water or vinegar, and boil them a few moments. As soon as these get cold when applied to parts, must be taken off and again dipped in the old decoction warmed up, and applied again; or flannel cloths may be wet in the strong decoction and wrung out and applied. A better plan is to have the herbs sewed up in two flannel bags, before being placed in the boiling vessel. If the part to be fomented is a limb, the most convenient plan is to place it over the vessel of boiling liquid containing the herbs, and cover all with a blanket, so as to confine the steam which may be kept up or increased to any desired amount by putting in hot bricks.

Alkaline Bath or *Hand Bath*.—Take a suitable quantity of boiling water, say $\frac{1}{2}$ pint. To this add one teaspoonful of Saleratus or Soda; when dissolved add cold water enough to make it milk warm. Now have two hand towels, or a sponge and a towel—the one dip in the water and wring it out so that it

won't drop off; then begin to wash in the following manner:—Take one limb at a time, wash and rub it well, and dry with the dry towel, this can be done without exposing the body to the air; so continue to wash the arms, body, legs and feet, every time rubbing the skin well with the dry towel or flannel. This bath is indicated when the patient is too weak for a rub sheet.

Rubbing or Dripping Sheet.—A large linen or cotton sheet, dipped in the Alkaline Solution or water itself, wrung out just so it won't drop off too much; then let the patient get on his feet, and immediately thrown over the patients head and body, so that the patient can rub himself in front, and an attendant his back and extremities; this ought to be continued from two to five minutes, and then the patient completely rubbed off with dry flannel or linen. This all ought to be done in rather a cool than a hot room; there is no danger of taking cold if the patient is himself in motion, but should the patient stand bare and still, he will take cold if the room is ever so hot, and the warmer the apartment the sooner he will take cold and chills. By all means have your rooms well ventilated or aired; and do not be afraid of good pure air, which is always or principally the case in sick apartments.

Foot Bath.—These are indicated cold and warm according to circumstances, warm in acute or inflammatory diseases or when the feet are cold, and a quick remedy is wanted to bring the blood down from the head and other parts to the feet; cold or tepid foot-bath must be shallow of only one or two inches of water, in Chronic diseases, where the blood circulates too freely to the head, chest and abdomen. This daily use of the foot bath is of great value in such cases; (it is also understood that after all baths the parts must be very well rubbed with dry flannel or linen.) This bath must be continued from ten to twenty minutes, also the feet ought to be continually in motion, (rubbing them on top of each other) especially in the cold foot-bath.

Water Drinking.—Water must be freely drank both in Acute and Chronic diseases; but one point should be remembered which some of our Hydropathists do not. We know the less fluid that is taken into the stomach while we are eating, the sooner digestion commences—for all the fluids must be absorbed before digestion can commence, and we know the sooner we can get the stomach to digest after eating the better it is. So remember take as little fluid into your stomach as you well can while eating, but about one or one and a half hours after eating, then is your time to take fluids into the stomach, for digestion has then commenced, and will be promoted by taking water into the stomach then, but sooner it will hinder digestion. I

say let every patient drink as little water as possible while eating, but in one hour after eating; then is the time the patient ought to drink a good deal more water than he has thirst for, say for instance from five to ten tumblers more than his thirst demands a day. There are some diseases where fluids ought not to be taken into the stomach, (such as dropsy, &c.) or rather not more than to quench the thirst.

Chest Wrapper.—This is advantageously employed in nearly all Chronic diseases of the Chest, as Consumption, Bronchitis, &c., &c. This is used in the following manner, take linen or toweling and make a jacket, and this one must be wetted, and make one of the same pattern of flannel, to cover the wet or linen one, the last one or flannel one, ought to be pretty thick or double; these must be always worn as tight as the patient can bear it. Changed three or four times a day.

Hip or Sitz Bath.—The sitting-bath answers the indications of Tonic, Sedative, &c. It is very excellent in weakness, irregularity, obstruction and torpor of the lower organs of the Pelvis and Abdomen. (For instance in bowel complaints, they are infallible remedies; also, Leucorrhoea or Whites in females, &c.) Any common wash-tub will answer the purpose; if a common wash-tub is used the back side ought to be raised a few inches by laying a piece of wood under, to make it a little more comfortable. The water as a general rule should cover the hips and lower portion of the abdomen. It must be used of all temperatures, from very cold to very warm, according to the case; and the time of application varies from five to thirty minutes. The best effect as a Tonic or strengthening remedy are of short duration, and often repeated, say applied five to fifteen minutes. In cases where there are chills the very warm are indicated, and cold or tepid as a Tonic; a blanket must be thrown around the patient while sitting in the bath—and he ought to be almost continually rubbing his belly and back with his hand or hands. Do not forget the flannel or linen rubbing after he comes out of the bath.

Wet Sheet Packing.—These are very good in both Acute and Chronic diseases. In Chronic diseases where there is a deficiency of blood in the superficial and capillary vessels or pores, and an accumulation or enlargement in the large internal vessels, with consequent congestion in some one or more of the viscera. To reverse this condition, relieve the overburdened internal organs, and supply this deficient external circulation, the wet-sheet process, aided by the proper help, is the best known remedy. This process repeated day after day, and sometimes twice daily, at length fixes a quantity of blood in the blood-vessels of the entire skin, and thereby reduces the disproportionate quantity which was congested in the inner

skin or mucus membranes. The time for remaining in the pack varies greatly in different cases—from fifteen minutes to two or three hours; in fever or acute diseases they ought but to remain in a short time, and in chronic complaints longer; if the feet remain cold in pack, apply a warm brick or a bottle full of warm water.

MODE OF PACKING—The sheet may be used cold, tepid or warm. In more delicate constitutions rather warm or tepid, especially in diseases where there are chills and fevers; but in chronic complaints cold or tepid must be used. Prepare the bed in the following manner:—Fix your chaff-bag as at other times, with a pillow; then spread two good woolen blankets on the bed, with one corner on the pillow, and at the foot end, and the other two corners down at the sides of the bed; now take your linen sheet and dip it in the water cold or warm as you want it and wring it out pretty hard, spread on the sheet in the same manner; now let the patient strip himself and lay himself on his back on the sheet, with his hands on his abdomen; the attendant must immediately envelope him, being cautious to get him tight all over and particularly tight at his feet and neck, first take the one corner of the sheet and throw it over the body of the patient, and on the other side stuff it under him nice and tight; then get the other corner in the same manner, turning it up nice at the feet and down at the neck, fix the blankets in the same manner; then get several comfortables and put them on the patient, and stuff them down under the patient very tight; if you have not enough comfortables you can use a feather-bed, at any rate be sure to have him thick and tightly covered or else he won't get warm. If he then should complain of Headache, apply cold cloth to his head, so let him remain (commonly speaking) in as long as he feels comfortable; if the patient is packed in the above manner he will soon get warm, and almost always fall asleep, and if he sleeps never disturb him out of his sleep. In a great many cases I prefer the Alcoholic Vapor Bath to the Hydropathic Wet Sheet, but then again in some cases it may be better than the Alcoholic Vapor-Bath.

DOUCHE, or Stream of falling Water.—This is used in Chronic Complaints, to arouse the absorbent vessels or that system of vessels which carry up all morbid matters into the blood, and in so doing with the other means, wet sheet pack, &c., will sweat and steam it out of the body. In these cases the Douche is a very excellent agent,—say, for instance in Chronic Swellings, Stiffness, White Swellings, Tumors, Gout, Rheumatism, &c. The force of the stream and time of application should be carefully adapted to the strength of the patient.—Very nervous persons, and those subject to a determination to

the brain, must resort to it with extreme caution. The stream must be directed to the back of the neck, along the spine, hips, and shoulders; in Chronic Swellings of the joints the stream may be directed to the affected parts; no strong Douche should be applied to the head, nor should it be long continued on any one spot about the spine or back bone. The water may be used cold and sometimes warm, principally cold; this bath may be received by taking a watering can up on the first story and letting it fall down on the patient as above indicated, or which is better, a stand or tub on the second story filled with water, and a tube made of tin (of the size of one inch in diameter,) fixed in the bottom of the stand, and the stream is the Douche. Applied, five to twenty minutes and repeated daily.

Plunge or Full-Bath.—This is generally used by Hydro-pathist after the wet sheet-pack, but in general is too inconvenient at any place, but with water-doctors it will do very well; but the dripping or rubbing sheet, and douche or shower-bath will answer all that is necessary in general.

Shower Bath or Rain Bath.—This bath may be used after the wet sheet-pack, or alcoholic vapor bath, not very cold, but tepid. A shower-bath is easily made if you have a douche. Only place a piece of board or tin under any stream full of small holes, and stand under it; this is a good morning bath; no patient must have more than two or three full or whole baths a day, these are Douche, Plunge, Shower and Rubbing Sheet. Duration of shower-bath from one to five minutes.

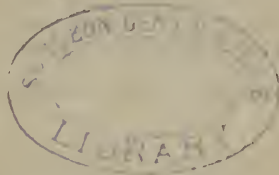
Head Baths are easily given.—Take a common basin or small tub, lay your head into the water backwards; by laying yourself on the back or the floor, the shoulders a little elevated, and your head thus laid into the vessel almost full of water, the water must principally be used very cold, and in some very few cases it may be used warm; duration from five to ten minutes or longer; the head may also be bathed by putting the head forward into the water, the head ought to be rubbed more or less while taking the bath, &c.

Clysters or Injections—Must be used in Costiveness, Diarrhoea and Bowel Complaints generally; they may be used either cold or warm, as indicated, but principally cold or tepid. A Syringe is an instrument that every family ought to have, it is easy and simple to use, and harmless; introduction easy if the point of the instrument is directed towards the left hip. Always inject gradually, the patient ought to retain it from five to twenty minutes, and sometimes longer—repeated several times a day according to circumstances.

Arm and Leg Bath.—These are very easily understood, and are only indicated when the limbs are diseased, duration from

five to twenty minutes, used cold or warm as indicated; never forget your friction after all bathing.

Bandages or Wet Cloths.—These must be linen or if linen cannot be had cotton will answer; fold these cloths up about five to ten folds; then dip them into the water, cold or warm, as indicated, and apply them to the parts affected, always remember a dry flannel or the same kind must cover the wet perfectly tight, and be perfectly dry on the outside, when both applied: this wet cloth must in some cases, where the inflammation is great, be changed every ten, fifteen or twenty minutes, (every time the dry over it, and if this dry one is damp, another one must be substituted,) till the inflammation has subsided, then it need not be repeated so often. In all Chronic Visceral diseases the Hydropathic wet Abdominal bandage ought to be worn; take toweling two yards and a half for an adult, this bandage wetted to reach once wet around your waist, and twice or three times dry, and pin tight, repeat after every bath, which is three or four times a day.



THE
AMERICAN IMPROVED
FAMILY PHYSICIAN.

PART I.
SPECIAL PATHOLOGY & THERAPEUTICS,
OR
THEORY AND PRACTICE.

FEBRILE DISEASES.

By the term "FEVER" we understand a morbid heat of the skin, unnatural frequency of the pulse, and disturbance in the various functions. It is a natural and salutary process, indispensably necessary to throw off a poison generated within the body, or induced by external causes. There is an increased action of the heart and arteries to expel from the system this irritating or morbid matter, or to bring about a healthy action. As a general rule the effects of this disease are all over the whole of the body, head, trunk, body and extremities; the circulating, absorbing, and nervous systems, the skin, the muscular fibres and the membranes, and likewise the mind, are all affected.

INTERMITTENT FEVER, FEVER AND AGUE, OR CHILLS AND FEVER. (FEBRIS INTERMITTENS.)—The title of Intermittent, or Chills and Fever, is applied to that kind of fever which consists of a succession of paroxysms or periods of fever, between each of which there is a distinct and perfect intermission from febrile symptoms. In this fever it is obvious that the balance of circulation is lost in the system; the blood recedes from the surface of the body, and is thrown into an undue quantity, or accumulates upon the deep seated organs, &c., &c.

SYMPTOMS.—Ague generally manifests itself under three

regular forms, viz: *Quotidian*—Every day Ague. *Tertian*—Third-day Ague. *Quartan*—Fourth-day Ague. These distinctions are of no practical value. There are also three stages in Fever and Ague, viz: The Cold, Hot and Sweating stages. The symptoms are all well known, and are given in all Medical Works, so I shall make them few.

The Cold Stage.—Languor, listlessness, general uneasiness, with depression of spirits, soreness of the back and extremities; the face and extremities become pale, cold sensations are running up the back and loins until shivering takes place; the lips and nails look blue, the teeth chatter, a goose skin presents itself now, and the mouth and throat are dry, and sometimes the patient vomits.

The Hot Stage.—After a while the shaking gradually subsides and goes off, then the heat of the body goes far beyond the natural standard; the skin then becomes dry, the face flushed, the pulse hard and full, breathing becomes easier; and there is thirst, severe head-ache, and restlessness; the urine high-colored, &c.

The Sweating Stage.—After the hot stage has continued for sometime a slight moisture comes on, which is observed on the forehead or neck; this gradually extends over the whole body, and profuse sweating relieves the patient's suffering. Now the patient is fit to follow his occupation again, till another fit commences. An intermission now takes place and the patient feels no fever or chill, but still there is an unhealthy condition of the system; showing that there is a cause yet which ought to be removed.

CAUSES.—Miasma, or Malaria,—which proceeds from the decay or decomposition of vegetable substances, as in low and marshy places, &c.

PROGNOSIS.—Always favorable. Except complicated with some incurable disease.

TREATMENT.—Here we have three principal objects to accomplish. 1. To stop or moderate the paroxysm. 2. To adopt such a course, during the intermission, as will prevent a return. 3. To prevent a relapse. In this disease Quinine is altogether depended upon, and this cannot cure the complaint. For Quinine is often adulterated or mixed with Arsenic or Rats-bane, and the use of this is followed by swelling of the Face, Spleen, Liver, &c. *First or cold stage.*—If suitable means are used, this stage and all the rest are cut short; when the stage comes, or is on, the patient must take the Alcoholic Vapor Bath, with his feet in hot water, and warm teas must be taken, as Catnip or Boneset, with the sweating Drops or Sudorific Tincture; (see Pharmacy,) in this way the patient must be sweated, and

put to bed and there warm catnip or which is better, boneset tea drank till free vomiting is produced; (this never fails to cure up the disease, if other means are followed to restore the bowels, &c.) After the patient is done sweating give him an Alkaline or common hand-bath; and then after the stomach is settled give him a purgative, as Podophylline or the compound May-apple Root, or Injections. If called in the Hot Stage.—Immediately after the termination of the cold stage, the treatment must be reversed: instead of giving warm teas, give cold water, and warm bricks to the feet, and if there is great determination to the head the cold pouring head-bath may be used, &c. *Sweating Stage.*—Here herb tea may be taken, and after sweating is over give the patient an Alkaline hand-bath, and let the wet sheet be removed and dry ones used in place.

VOMITING.—Sometimes the stomach is very irritable, and vomiting occurs, so that certain kinds of medicine cannot be taken. In this case, give the Neutralizing Mixture, or Saleratus with mint tea. During the intermission, first cleanse the stomach by an Emetic, as warm water, or Beacher's Emetic Powder; and the bowels by a purgative, as Podophylline or compound of May-apple Root, or by injections. After fulfilling these indications, give Tonics, as the Wine Tinture (see Pharmacy) Externally; at this time we must pay great attention to the skin, by daily wet-sheet pack, or if the patient is plethoric the Alcoholic vapor-bath; these means must be used warm, or they cause a chill; also, daily foot-bath warm, &c. Diet must be vegetable and nourishing, with nothing but water drinking during the day, and exercise in the good pure air. This will eradicate a permanent cure. Never forget the Alcoholic Vapor Bath for I have done miracles, I might say with it; and as a matter of course you can do the same if you have this, or, a similar work to this.

REMITTENT FEVER. (FEBRIS REMITTENS.)—*Bilious, or Bilious Remittent and Sabural Fever, are Synonymous.*—**SYMPTOMS.**—This fever usually commences with coldness or chills and fatigue; the skin and extremities are also cold, the face pale, the lips are purple-colored, and the pulse is small, depressed and irregular; accompanied with sickness and sometimes vomiting, pain and thirst. *Fever.*—These rigors continue for a longer or shorter period, when reaction takes place and fever commences. The skin is hot and dry, the appetite is impaired, the bowels are generally costive, and the urine high-colored. *Remission.*—There is usually an abatement of the

febrile symptoms; it generally takes place daily toward morning, and increases again on the succeeding evening. The patient, upon pressure of the stomach and bowels, complains of some soreness or pain; the skin assumes a sickly or sallow complexion.

BILIOUS REMITTENT FEVER.—This form is the true Bilious Fever of our climates, comes on with a distinct chilly fit, of greater or less duration, and is succeeded by the ordinary symptoms of fever, with a frequent, full and soft pulse, &c., acute pain, great aching and restlessness; nausea or vomiting, with ejections of bile, or matter exhibiting a bilious appearance. *Causes.*—Marsh Miasmata is the principal cause of the remittent form of fever. Other causes may produce it, as Worms and other irritants, acting on the alimentary canal, from being thrown into the bowels during the early period of the disease. To the former class of Remittents, we may therefore apply the term "GASTRIC;" and to the latter that of "HEPATIC."

Gastric Modification—Is characterized by bitter or putrid taste; tongue covered with a thick, yellowish slime, which, by degrees, becomes dry, cracked and blackish; disgust for every kind of food; urine high-colored; distress and weight in the stomach; abdomen tense and tender; pain in the loins and knees; intense pain in the forehead; distinct remissions and exacerbations.

Hepatic Modifications.—This is the most rapid and dangerous form of the disease; it is characterized by intense febrile heat during the exacerbations; delirium, fulness, tension and pulsation in the right hypochondrium; tongue clean at first; great irritability of the stomach; continual vomiting of a glairy fluid; the skin becomes icteric or yellowish; toward the termination of the disease, the liver, in most instances, pours out an abundance of colored bile, which is evacuated by stool, and sometimes by vomiting. The stools in such cases are black and pitchy.

TREATMENT.—Here are five indications to fulfil. 1. Moderate the violence of arterial action, if too great. 2. Remove the tension and obstruction in the capillary vessels of the skin. 3. Remove the irritating contents of the bowels, and lessen intestinal irritation and congestion. 4. Restore the secretions and excretions of the liver, skin, &c. 5. Support the strength of the system. In the early stage an Emetic (Beache's Emetic

Powder) must be given, and followed by a purgative, as Podophylline or Compound of May-apple Root, or injections. This purgative may be repeated every other day or every third day. In the mean time make use of our Sudorific Tincture, and Alcoholic Vapor-bath—or the warm Wet-sheet Pack, aided by warm Teas and the Sodorific Tincture; also, warm bricks must be applied to the feet, &c. This must be followed by the Alkaline hand-bath, with brisk friction; warm foot and hip-baths may daily be used if the patients strength will allow it. The above treatment must daily be repeated as the strength of the patient can bear it. If there is debility give the Wine Tincture; (see Pharmacy,) if there is headache present apply hot to the feet and cold to the head, &c. If vomiting is a symptom, give a Tea of Spearmint, or the Neutralizing Mixture; or a little Saleratus may be dissolved in cold water and given. Also, cold applications to the stomach and warm to the feet, will stop the vomiting.

Relapses.—It is of the utmost importance that the patient, as soon as a state of convalescence or getting better takes place, should use every precaution to prevent a relapse. His diet should be very spare and principally vegetable, and he should use moderate exercise. The patient must be kept cool, quiet and clean. His apartment must be well ventilated or aired.

Convalescence.—In the management of convalescence after fevers, the greatest care must be taken to prevent febrile excitement or any accumulations in the bowels. Most relapses depend upon errors in diet, and a sudden return to stimulating food. Give no animal food; but vegetable and nourishing diet, with daily rub-sheet, foot-bath, and injections to regulate the bowels.

INFANTILE REMITTENT FEVER.—For symptoms see Remittents. Treatment the same as in Remittent Fever, but here the Alcoholic-vapor-bath must be made use of in bed, (see Introduction;) or the warm wet sheet-pack may here be preferable, &c. Light diet to be used, principally arrow-root, barley-water and cold water.

YELLOW FEVER. (TYPHUS ICTERODES.) *Characteristics.* Partial or general yellowishness of the skin; paroxysm somewhat irregular; great tenderness or pain about the epigostrium

or pit of the stomach; faintness, giddiness, slight chills, severe pain in the head, inflamed eyes; intolerance of light; dry and burning skin; great thirst; pain in the loins and lower extremities; nausea and vomiting; transient or partial sweats. This stage lasts from twenty-four to sixty hours. Sometimes there is a sudden loss of muscular power, and depression of nervous energy, the patient falling down as if stunned by a blow. Medical authors give different stages, but I think it unnecessary, as we must give treatment according to the symptoms. The black vomit, so alarming to friends and physicians, does not always take place, and when it does happen, I believe it is owing more to mal-medication than to all other causes combined.

TREATMENT.—The first step must be, to promote sweating, either by alcoholic-vapor-bath, or warm wet-sheet-pack. These must be aided by warm teas, and Sudorific tincture or sweating drops, and warm bricks enveloped in flannels, wet with vinegar and applied to the feet if the patient sweats or steams in bed. If the patient can take an alcoholic vapor-bath previous to giving or applying the vapor, give him the tea and sweating drops, and bathe his whole surface well, then apply the vapor; if headache is present apply very cold cloths to the head, and the foot-bath must be kept hot. After he is through with this operation, give as usually the alkaline-hand-bath or rub-sheet, followed by very brisk friction to the whole surface. Now give him an injection of Salt and warm water, or the compound powder of May-apple root; these means if correctly made use of, will relieve the head, lessen or break the fever, and improve the condition of the patient. Where the stomach is very irritable and vomiting is excessive, the Neutralizing Mixture is excellent; one table-spoonful of the Neutralizing cordial may also be taken at a dose, and repeated every half hour until vomiting ceases. Injections of salt and water, and cold cloths to the stomach will also check the vomiting. These measures must be repeated till convalescence takes place; and then the patient must be treated as before said. Always bearing in mind the important part, which is the skin, as a continual moisture ought always be kept up. Cold water must not be forgotten if there is thirst. If the stomach is irritable mint water is very good, with the addition of a little saleratus.

NERVOUS FEVER. (TYPHUS MITIOR.)—This has been called "*Mild Typhus*," "*Low Typhus*," and "*Slow Fever*," and also, "*Typhoid Fever*." It usually runs from six to eight weeks under Allopathic management.

DIAGNOSIS.—Great disturbance of the mental functions; dejection of mind; frequent, weak and irregular pulse; tongue covered with a white, thick mucus; eyes suffused; heat of the surface more or less unequal; the skin is liable to irregular dryness and sweats; the early symptoms are mild, and increase in violence gradually; the evacuations are not particularly offensive; alternate chills, and hot flushes; pain in the back and loins; noise in the ears, &c.

TREATMENT.—First indication is to equalize the circulation, by the daily wet-sheet-pack, or alcoholic-vapor-bath; rub-sheet or hand-bath; foot-bath and injections. Internally cold water drinking, and tonics must be made use of, if the patient is debilitated or sinking—as Madeira wine, diluted with twice the quantity of water, sweetened and given warm. This acts as both a tonic and diaphoretic, promoting perspiration. A wine glassful may be occasionally given through the day. In other respects treat as in other fevers; or inflammations as before given. Diet must be nourishing and spare; vegetable diet is the best. Chicken soup is an excellent diet, made with parsley, barley, rice, &c.

PUTRID, or MALIGNANT FEVER. (TYPHUS GAVIOR.)
This is a more violent and malignant form of typhus than the preceding. Jail, camp, ship, hospital, and several other fevers, usually considered distinct species, are but modifications of the putrid form of typhus, as influenced by local circumstances, and require no special pathological or therapeutic notice. The spotted or petechial fever, so called from purple spots appearing on the skin before death, has prevailed in many parts of New England since 1806. It has been very fatal, and was formerly denominated Typhus Syncopalis, or Sinking Typhus. Medical books also make a useless and groundless distinction between Typhus and Typhoid Fever, on the vague supposition that the latter has its seat more especially in the disease of the Mesenteric and Peyer's glands. I reject this distinction as fanciful, if not puerile, and, as the reader will perceive, employ the terms typhus and typhoid indiscriminately.

DIAGNOSIS.—Attack sudden; progress rapid; rigors severe, early and great prostration of strength; extreme anxiety and restlessness; the countenance is expressive of anguish and horror; pulse hard, but small and rapid; tongue dry and brown or black; the skin imparts more or less of a peculiar stinging, pricking, or burning sensation to the touch; the breath is hot and offensive; there is a ringing in the ears; throbbing of the

temples; intense headache; redness of the eyes; the excretions of urine and fœces are dark and offensive. In the advanced stage spots or blotches appear on the skin from effused blood forming, &c.

TREATMENT.—The first and great indication of cure in putrid or malignant fever, is, to arrest it as speedily as possible, in order to prevent the fluids from running into a state of putrefaction or rottenness. An emetic may be administered in the beginning, and if it proves beneficial, it may be repeated in a day or two after; here Beaché's emetic powder may be used. The compound powder of may-apple root must follow the emetic; to be repeated daily, or every other day, according to circumstances; Injections are also good. Give diaphoretic teas, with the Sudorific Tincture internally; and externally assist by the alcoholic-vapor-bath, or warm sheet-pack, &c. As soon as you get the patient copiously sweated, so soon you will cut the disease short. These means may be used previous to the emetic, and purgative, especially if the attack is severe, and repeated if necessary. When symptoms of putrescency occur, let good yeast be given freely; a wine-glassful may be given every three hours through the day, and once during that period, let an ounce of Olive or Sweet Oil be added to a wine-glassful of the yeast, sweetened, and drank by the patient. Besides the laxative effects of the oil, it possesses great anti-septic properties. Pure air and good diet must be used; also, rub-sheet, and other baths as indicated, like in other fevers, &c.

PUERPERAL FEVER. SYN.: *Child-bed Fever, Puerperal Peritonitis, Peritoneal Fever, and Uterine Inflammation.*—This is one of the most frequent and fatal diseases under the old school practice; but I have never known nor heard of it among hundreds of cases treated hydropathically. Indeed it is an impossibility under judicious water or eclectic treatment. Medical authors distinguish several varieties or forms of this disease. 1. Acute puerperal peritonitis, or inflammation of the peritoneal covering and sac of the uterus. 2. Inflammation of the uterine appendages, ovaria, fallopian tubes, and broad ligaments. 3. Inflammation of the muscular and mucus tissues of the uterus. 4. Inflammation and suppuration of the absorbent vessels and viens of the uterine organs. But these various forms are all modifications of the same disease, and require one treatment.

SYMPTOMS.—Among the most prominent are swelled, hard,

painful abdomen and belly and obstinate costiveness. *Causes.* Ill aired rooms ; filthiness and hot slops, as Tea, Coffee, &c.

TREATMENT—Simple, as for other inflammations of the bowels, bladder, &c. The wet sheet-pack, followed by the rub-sheet or hand-bath, hip-bath, foot-bath and injections, these must be used daily, and warm ; cold wet cloths must be applied to the belly, and often renewed, at the same time warm bricks must be kept to the feet, while in a horizontal position. Warm foot-bath, with tepid or cool hip-bath of short duration ; say, from ten to fifteen minutes, and several times daily repeated. Both tepid injections into the womb, and rectum will prove very useful. Nutritious vegetable diet must be used, as Indian meal, gruel or mush, and roasted apples, &c. If you are called where they are too ignorant to admit to the use of water, you may begin with an Emetic of Beache's Emetic Power, followed by a brisk physic, as the Compound Powder of May-apple-root. Also, perspiration must be promoted, this may be accomplished, with the Sudorific Tincture, and aided by warm teas, &c. ; and the alcoholic-vapor-bath, or a woolen blanket dipped in a tubful of warm water, and the patient enveloped like in the wet-sheet-pack. And hot fomentations may also be applied to the abdomen.

MILIARY, or MACULATED FEVER. (FEBRIS MILIARIS.)—In this fever, nature seems to be endeavoring to drive out the morbid matter to the surface of the body, by increasing her secretory and excretory motions. The disease derives its name from the small pustules or bladders which appear on the skin, and which in size and shape, resemble the seeds of millet. These pustules, or pimples, are either red or white, or, as sometimes happens, a mixture of both ; they are sometimes distinct, at other times in clusters. Miliary Fever is not known under water-treatment.

SYMPTOMS.—In child-bed women, when the milk is suddenly dried up or repelled causes this fever. When the pustules appear and disappear alternately there is always danger ; but when they disappear suddenly and do not appear again, the danger is extremely great. If a diarrhœa comes on in the progress or decline of the disease, and is suddenly checked, it may occasion an apoplexy. In child-bed women, a diarrhœa is a very dangerous symptom, and the change of the color of the urine from a yellow to a pale color is alarming. Drowsiness, free breathing, moderate sweat, without much debility or depression, are favorable symptoms ; contrary ones are dangerous.

CAUSES.—Indolence and inactivity are the most general causes. Also, unwholesome provisions; impure water; by a suppression of any customary evacuations; a weak, watery diet; and uncleanliness.

TREATMENT.—Give the same treatment as in fever generally, particularly Scarlatina. We must not increase the sweat, too much, for fear of debility; but bathe freely with the Alkaline bath, &c. Also a moisture of the skin must be kept up to fulfil this; saffron and snake-root tea may be taken. Diet, Chicken broth or soup, with bread, panallo, mush, and good apples roasted or stewed, &c.

PLAGUE.—(PESTIS.)—The character of the plague is that of a malignant exanthem; a typhus fever of the putrid form, attended with carbuncles, buboes, and imperfectly suppurating tumors, sometimes running into deep gangrenous ulcers, the patient often feeling as if burning up with internal fire. The treatment should be the same as for the putrid form of typhus fever. *Prevention.*—Remove the sick into clean, airy and well ventilated apartments, and let there be as little communication with them as possible. Bathing the whole body often with the alkaline wash.

HECTIC FEVER.—(FEBRIS HECTICA.)—This is generally symptomatic of other disorders. Treatment on general principles; as wet-sheet-pack, rub-sheet, hip, foot and hand-baths must be used according to circumstances. Also, injections must be used if the bowels are costive, &c., &c.

INFLAMMATORY DISEASES.

This class of diseases is characterized by heat, pain, redness and swelling. Inflammation is either general or local; general, when the system is extensively affected; local, when confined to some particular part or organ. It is also acute or chronic; acute when the attack is severe, and the symptoms violent,—chronic, when the inflammatory action has considerably subsided, and the disease becomes less painful and violent in its character and protracted. There are several varieties of Inflammation occasioned by difference of cause, function or texture of the parts affected.

All the Viscera are subject to Inflammation. The various phenomena or symptoms exhibited in this class of diseases, are owing to the peculiar structure of the part inflamed, more than to the exciting cause of the disease.

Chronic Inflammation is generally, not always the consequence of acute inflammation; and its effects are dropsical effusions, and tuberculated aceretions in the serous membrane; Phthisis, Diarrhoea, Dyspepsia, and various other affections in the mucus membrane, &c.

The indications in the treatment of Acute Inflammation are, First, to diminish the momentum of the general circulation; Second, to drive the blood from the inflamed part; Third, to regulate the capillaries or pores; Fourth, to change the inflammatory condition of the blood.

INFLAMMATION OF THE BRAIN—*Phrenitis, Brain Fever, or Phrensy.*—Some authors distinguish it into two forms but the treatment is the same in both cases.

SYMPTOMS.—Acute or excruciating pain in the head, throbbing of the temporal arteries and carotid arteries; flushed face; eyes ejected and redish; contracted pupil, &c.; occasionally nausea and vomiting or general convulsions. The bowels are usually extremely costive; the skin is dry and hot, the pulse hard and quick; the tongue dry and covered with a white fur, and there is great thirst.

CAUSES.—Violent exercise, fractures of the brain, repelled eruptions, intense study, &c.

TREATMENT.—Divert the blood from the brain, by restoring the circulation in the extremities, or hands and feet—in other words equalize the circulation, by bathing the feet and hands

in warm water two or three times a day; after bathing rub them till they get warm, then put the patient to bed, and apply warm bricks to his feet, and at the same time cold, or if the patient cannot bear cold applications to the head, apply them warm; namely, linen cloth doubled up thick, dipped in the water and applied, change these often. If the bowels are costive, give copious injections of tepid water. If this don't arrest the disease in a short time, envelope the patient in a tepid wet sheet, and put warm bricks to the feet to keep the blood from the head, and the above application to the head while in the pack, let the patient in the pack as long as from half an hour to two hours, or as long as he feels comfortable. After you take him out of the pack rub his body well off, with soft dry flannel, and put him in a clean dry bed, and repeat the warm to the feet, and cold or tepid to the head; repeat this packing two or three times a day, according to circumstances; keep the patient quiet. No stimulating food or drink dare be taken, keep the apartment well aired, and the patient covered up with blankets to his comfort. The Injections must be repeated daily if the patient remains costive.

INFLAMMATION OF THE EAR, or (OTITIS) EARACHE.—When the ear is inflamed, the pain is very sharp or acute, attended with more or less fever, and sometimes delirium. Swelling and redness are often perceived externally, attended with throbbing; suppuration occasionally takes place, followed by a copious discharge of pus; this discharge will sometimes continue for years, and produce deafness.

TREATMENT.—If the pain is severe, a constant application of several folds of cold wet cloths to the parts; occasionally syringing the ear with cool but not very cold water. Also the wet sheet-pack must be resorted to if there is fever, and warm applications to the hands and feet; also, take a suitable quantity of hops, and simmer in equal parts of vinegar and water, when the strength is extracted, steam the ear, then enclose them in linen or flannel, and apply warm over the parts. Repeat the application till the pain subsides, and let the feet be bathed in warm water. Another infallible remedy: the sap of walnut or of hickory. Take a small stick, put it over the fire, and place a vessel under each end to receive the sap, put this into the ear on cotton occasionally. This, it is said, is used very much among the Indians with great success. This is very good for Deafness.

MUMPS. (CYNANCHE PAROTIDEA.)—This is an inflammation of the parotid gland, appearing on one or both sides at the same time. It is most common to boys before the age of puberty, and is seldom seen after twenty years of age. It is often accompanied with swelling of the testes in males, and of the breasts in females.

SYMPTOMS.—It increases till the fourth day, and often involves the maxillary glands in the inflammation.

TREATMENT.—Light diet, with wet-sheet-packs whenever the whole surface is affected with feverish heat, and wet linen cloth covered with a dry one, to the inflamed part, either cold or tepid and often repeated; also the alcoholic vapor-bath must be used to cause sweating in all these cases, where there is more or less fever. (See Introduction.)

INFLAMMATION OF THE TONGUE. (GLOSSITIS.)—In this complaint there is heat, pain, swelling and redness of the tongue, which is more or less coated. This complaint often proceeds from the use of Mercury. Also the jaws swell and are very sore with a copious discharge of saliva, fetid breath, &c.

TREATMENT.—An Emetic may be first given, such as tepid water or Lobelia Tincture, and the bowels kept open, the tongue and mouth be relieved by cooling applications, Slippery-elm and cold water. When it arises from mercury, Sulphur must be administered in doses of a tea-spoonful till it loosens the bowels.

QUINSY, or INFLAMMATION OF THE THROAT.—(CYNANCHE TONSILLARIS.)—There are two varieties of inflammation of the tonsils; Acute and Chronic. In the acute, the swallowing is difficult and painful; the throat is sometimes swollen externally; loss of appetite, thirst, headache and general fever, for the most part accompany this disease.

TREATMENT.—If the attack is severe steam the throat with the following articles: Worm-wood, hops and catnip, or other bitter herbs, equal parts; make a strong decoction by boiling one or two hours in equal parts of rain water and vinegar; put them into a large pitcher, or any vessel, over which place a funnel; then let the patient inhale the steam arising from, for

fifteen or twenty minutes, and repeat every two hours until the urgent symptoms are removed, also the herbs are to be bound on the neck. Also an emetic will give immediate relief, of tepid water or tincture of Lobelia. If there is much fever, the Alcoholic vapor-bath or the wet pack (see Introduction) with warm foot bath; purgatives or tepid injections must be frequently used. If it takes the chronic form, gargles of a more stimulating nature must be used, as Sumac-berries, and Golden-seal, half the quantity of the berries; make a strong decoction, and add a small quantity of pulverized Alum, and use frequently during the day; also, wet cloths to the throat are very good with dry flannel often renewed. Also an irritating liniment may be used which is very good, take Spirits of Turpentine 1 ounce; Croton Oil $\frac{1}{2}$ ounce; Olive Oil 1 ounce; and a little Origanum or Sassafras Oil, and mix. Rub on the throat once or twice a day, till it makes it right sore, and continue this for some time with the above gargle.

PUTRID, or MALIGNANT SORE THROAT. (CYANOCHE MALIGNA.)—The symptoms of this complaint are chills-fever, stiffness of the neck; soreness and inflammation of the throat; ash-colored spots appear upon the inflamed parts, which produce deep ulcerations. The breathing and speaking are attended with peculiar noise and hoarseness. It is ushered in with sickness, vomiting, looseness and anxiety; the breath is intolerably offensive. The ulcers become livid or black, sometimes gangrene, to a considerable extent, takes place. Putrid symptoms now appear, under which the patient sinks in a few days. At the close of the disease, hemorrhages from the mouth, nose, and other parts take place, not so dangerous if perfectly treated.

TREATMENT.—At first a tepid water or mild Emetic may be given, after which tepid injections or a mild physic, as castor oil may be given. If the throat is very painful, let the patient inhale the steam of the decoction mentioned in the treatment of Quinsy. Also, that irritating Liniment mentioned in Quinsy, must be applied to the throat. When putrid ulcers form in the throat, let it be gargled with a mixture of yeast and milk. It will be necessary also, to administer good yeast through the day, say a wine-glassful. If the pulse is very weak, and the patient sinks, the system must be supported by stimulating medicines and liquids. Porter and wine may occasionally be given. Also the following is a very good compound: Cayenne pepper 2 table-spoonsfull; Salt 1 tea-spoonful; Boiling water,

half a pint, and add vinegar, warm, half a pint. Let the above stand about an hour, and strain the liquor through a fine cloth. Dose, two table-spoonsful every half hour. Apply to the throat the Rheumatic Liniment and a Lobelia Poultice; also, if there is much fever make use of the alcoholic vapor-bath, foot-bath, wet-cloth tepid, &c.

INFLAMMATION OF THE LARYNX. (LARYNGITIS.)

This disease consists in an inflammation of the mucous membrane of the larynx, and exists in both the acute and chronic form. It resembles the croup, and some writers consider it the same; but this disease attack adults, and croup infants and children. There is difficulty in breathing, with hoarseness, and sometimes cough; a soreness of the throat and larynx, with a sense of stricture. In some cases the patient cannot speak above a whisper, and the pain increases by talking or coughing; a sense of fullness or choking is experienced, a dry cough is attended, and the patient is always hawking and trying to spit up, swallowing is difficult, and there is some fever. This is among allopaths pronounced a dangerous disease; but it is nothing like it. General Washington died with this disease or was killed by malpractice. This disease proceeds from a check of perspiration, in connexion with predisposing causes; and follows small-pox, mumps, and scarlatina, and Gonorrhœa.

TREATMENT.—In the commencement of the complaint, an alcoholic-vapor-bath, [see Introduction,] will be found very beneficial. Also, an Emetic of Lobelia tincture, or warm water, fomentations, [see Introduction,] or wet cloth to the throat with the dry one over it, occasionally repeated; also warm sheet-pack, and inhalation of boiling water poured upon hops or camomile flowers; or the simple vapor or hot water itself tends to relax the inflamed membrane and conduces expectoration. In the chronic form resource must be had to the general wet-sheet-pack, &c.

CROUP, CROWING DISEASE, &c. (CYNANCHE TRACHEALIS.)—This is an inflammation of the windpipe, attended with a thick, tenacious, glairy secretion, which hardens, if the disease is not soon arrested, into a preternatural membrane, and produces death by closing up the air-passage in the larynx; this disease most commonly attacks children between the age of

one year and twelve, though occasionally it occurs in infants at the breast; sudden changes of temperature cause this disease, with little or no attention to bathing habits.

TREATMENT.—The whole throat must be instantly enveloped in several folds of very cold wet cloths, and these often changed until respiration becomes free. Also, at the same time the feet and hands must be bathed in warm water; also a Lobelia Emetic will arrest the disease with the other means, and injection of tepid water; if there is fever and the disease is not arrested with the above means, the alcoholic-vapor-bath, or wet-sheet-paek tepid, with warm applications to the feet; also vomiting may be caused by drinking a great deal of warm water. But all treatment may fail in the third and fourth stages of the disease. The preternatural membrane has, in a few instances been expectorated in fragments, and the patient recovered; but usually its formation has been fatal. As prevention is better than cure I advise you all to bathe every morning with cold water.

BRONCHITIS.—This is an inflammation of the air tubes. It exists in two forms—acute and chronic. This is known by consumption of the throat. The acute form very much resembles inflammation of the lungs; old persons are very subject to this disease.

SYMPTOMS.—This disease commences with more or less cough; irritation about the throat, sense of tightness in the chest, and shortness of breath. *Causes.*—There is no doubt that the increasing quantity of tea, coffee, and tobacco consumed by our people is a special cause of the increasing prevalence of this disease among us.

TREATMENT.—Pretty near the same treatment as the above disease; in the acute attack, an Emetic of warm water or Lobelia Tincture, with warm foot-bath, wet cloth cold or fomentations to the throat and breast; also the alcoholic vapor-bath or warm wet sheet-paek, with warm foot-bath, and attention to the bowels. In the chronic form a more persevering course of treatment is indicated, as continuing the wet tepid sheet-paek, with cold cloths to the breast while in paek, and warm bricks to the feet, this daily repeated; also daily rub-sheet, tepid or cold, with foot-bath, and occasionally an emetic of warm water, and tepid injections, with great care in diet, no stimulating food dare be eaten, nor drank; bathing every morning with cool or almost cold water, either by rub-sheet or hand-wash.

INFLAMMATION OF THE LUNGS. (PNEUMONIA.)—

This inflammation is acute and chronic. It is more common in men than in women; in the right lung than in the left; and in the lower than in the upper portion. It attacks all classes and ages, and prevails more frequently in the winter and spring, in changeable wet weather, than at any other season.

SYMPTOMS.—Great heat and sense of weight about the chest; dull, deep seated or acute or cutting pain; short and dry cough, with a slight slimy expectoration; frequent, short, and anxious breathing. In a day or two the expectoration changes, more or less rusty-colored, yellow, or bloody. *Causes.*—Unequal exposure of the body, cold or wet feet, over exertion, &c.

TREATMENT.—When called in the acute attack, the first must be hot foot-bath, with cold, very cold, or hot cloth to the chest or breast, at the same time a great deal of warm water, or which is better catnip tea, drank till vomiting is produced. Also the cloth must be often changed, and the warm applications kept to the feet; if it can be done the alcoholic vapor-bath will give immediate relief, and after the acute or sharp symptoms have subsided, a tepid injection must be given to regulate the bowels. If this disease takes on the chronic form, take daily wet sheet-pack, rub-sheet, or alkaline hand-bath, foot bath, warm hip-bath, and the wet-jacket or bandage, [see Introduction,] with tepid injections, and occasionally a warm water emetic, this daily repeated, with an unstimulating diet, &c., will soon arrest the disease.

COLDS, COUGHS AND CATARRH. (TUSSIS.)—SYMP-

TOMS.—A cold is usually accompanied with a weight and pain in the head, oppression at the chest, and some difficulty of breathing; a sense of fullness and stopping of the nose; watery, inflamed eyes; soreness of the throat; cough; pains about the chest; cold shivering, succeeded by flushes of heat; also pains in the neck and other parts of the body. *Cause.*—Taking cold, by giving a check to the pores, or sweat, &c.

TREATMENT.—Simple, drink a good deal of herb tea, as Sage, Hoarhound, white balsam, &c., and make use of the alcoholic vapor-bath, with attention to the bowels, by injections, foot-bath, alkaline or common rub-sheet, &c. If the cough should continue troublesome, a tea-spoonful of the Tincture of Lobelia may be taken every morning, and the above treatment repeated.

PLEURISY, or STITCHING BETWEEN THE RIBS. (PLEURITIS).—This is an inflammation of the membrane or skin, lining the ribs, and covering the lungs. **SYMPTOMS.**—There are chills, and coldness of the extremities, showing that the balance of the circulation of the blood is lost, in some part of the body, and has thus rushed too extensively upon the pleura or skin lining the chest, and by so doing great lancinating pain is suffered, or stitches, like if a knife had been cut through the ribs, &c. This disease must be actively and promptly treated in the beginning, to give permanent relief; caused by the same as other acute inflammations. This disease never takes on the chronic form, if correctly treated by our means.

TREATMENT.—Almost same as inflammation of the lungs; [see the opposite page,] first apply hot to the feet, and cold, very cold to the parts affected; always remember the cold cloths with the dry one over it, often repeated, with warm teas, or water to drink till vomiting is produced; and if the patient can bear moving, give him the alcoholic vapor-bath, tepid injections after the most acute symptoms have subsided; also, the patient must have the alkaline or common hand-bath or rub-sheet; also an Emetic of Tincture of Lobelia, is a sure remedy with other means. If this does take the chronic form the treatment must be daily continued; here the wet sheet-bath may be used instead of the alcoholic vapor-bath.

INFLAMMATION OF THE HEART, and Pericardium or Sac of the Heart. (PERICARDITIS).—In this disease there is a burning, lancinating pain in the region of the heart, shooting to the left scapulo or shoulder blade, and increased by full breathing, and especially upon pressure on the præcordial or ribs over the heart. When the inflammation is chronic or subacute, the pain is more or less dull, and does not lancinate; there is a dry cough, hurried respiration, often violent palpitation, and frequently the beats are more feeble, fluttering and irregular. The pulse is always frequent, and generally, in the commencement, full, hard, jerking and intermittent; also, a sense of suffocation, and great anxiety; contracted appearance of the features; great uneasiness; faintness; insupportable distress and alarm; cold sweating; and finally, from obstruction of the circulation, swelling and livid appearance of the face, &c.

TREATMENT.—Similar to Pleurisy, cold cloths to the parts with hot foot-bath, with the alcoholic vapor-bath, and other remedies principally used in acute inflammation.

INFLAMMATION OF THE DIAPHRAGM, or *Partition between the Chest and Abdomen.* (DIAPHRAGMITIS.)—**SYMPTOMS**—Are very violent pain, which is deeply seated under the short ribs, striking through to the back. Cause and treatment the same as in Pleurisy.

INFLAMMATION OF THE STOMACH. (GASTRITIS.)—This inflammation is acute and chronic, there is a burning pain in the region of the stomach, which is increased on pressure; it is attended by a constant desire for cold drinks, which are immediately vomited; the region of the stomach is considerably hot, while the extremities are cold; at the same time the patient complains of a sore throat, and upon examination the fauces will be found inflamed; at last a black vomit takes place, and the bowels are generally costive. This may follow Cholera Morbus, &c. **Causes.**—A great majority of this disease is caused by taking powerful irritant poisons into the stomach. It is sometimes caused by drinking largely of very cold water when the body is excessively heated by exercise; especially in persons whose stomachs are weakened by spirituous liquors.

TREATMENT.—Apply the wet cloths freely to the whole abdomen, either cold or warm, quite cold mostly always answers the best. Drink water of a common moderate temperature, warm foot-bath, and tepid injections when costive, and cold ones when the patient has a diarrhoea; also, the alcoholic vapor-bath with cold water drinking, and the same time cold cloths to the stomach, with hot foot-bath, and also the warm wet sheet-pack, with cold to the stomach and warm to the feet. A hip-bath is of great value in this case, say cold hip-bath, with a warm foot-bath at the same time. Duration, short and often repeated, or several times a day.

INFLAMMATION OF THE LIVER. (HEPATITIS.)—Here the pain is felt in the right side, often pungent, like that of pleurisy, but more frequently dull; a pain at the top of the shoulder-blade; difficulty of breathing, dry cough, vomiting and hiccough, and yellowness of the eyes sometimes appears; this disease is either acute or chronic.

TREATMENT.—The acute attack must be treated similar to

pleurisy, with an emetic of warm water, warm foot-bath, and very cold or hot cloths to the parts; also, tepid or cool injections, and the alcoholic vapor-bath, &c. In the chronic form a similar course is to be continued day after day, with hip-bath, &c. A very good and most excellent remedy is a compound of May-apple root, one tablespoonful; Senna, one tablespoonful; Jalap, one tablespoonful; Cloves pulverized one-half teaspoonful. Pulverize each of these separate, then mix and run through a fine sieve. Dose, a teaspoonful taken in water on an empty stomach, or fasting; repeat this every three or four hours, till it physics freely. This may be repeated in the course of the treatment, and is one of our best physics now in use, in all cases where a physic is needed, it cleanses the stomach and bowels well, and produces a healthy action of the parts; this is an excellent remedy in all bilious complaints. Some of our Hydropathists speak not in favor of any remedies but water itself. I cannot say that I have ever seen any bad effects of some of our harmless vegetables, which I believe were created for the human sufferer, but I think it highly injurious to use the mineral poisons as remedial agents, for I do not believe that God Almighty has ever created the minerals for this purpose, but for some other. Here in this very complaint the minerals have ruined many a man. How, or why have they ruined many a one? Because our fashionable doctors are daily prescribing them in these cases with the greatest of unsuccess; for a man full of poison or morbid matter, and at the same time giving him more yet, is it not an infernal damnation to the human sufferer? Why can we not speak with nature, and also act with the laws of nature? We well know that nature always tries to throw off poisons. Why introduce such poison that will destroy nature, either wholly or partially? Always better assist nature in its efforts, and it will soon gain ground! Why! if my head is loaded with heavy burden, shall I get more put upon it, or shall I get some body to take some part off?

INFLAMMATION OF THE SPLEEN. (SPLENITIS).—
 This organ is the seat of acute and chronic inflammation, the disease is characterised by fever; pain in the side, under the short ribs; more or less swelling; sometimes cough and derangement of the bowels; occasionally bleeding at the nose, or rectum, &c. It sometimes becomes chronic, by which the disease is understood to have assumed a protracted condition, known as the Ague-cake.

SYMPTOMS.—A fullness, heat and tenderness in the left hy-

pochondrium or side, and pain or pressure. It commences with a remarkable shivering, succeeded by a most intense heat and very great thirst, which assumes a periodical character.

TREATMENT.—In both forms the treatment is the same as in Hepatitis, with cold cloths to the parts, and warm foot-bath, with tepid or warm hip-bath, injections, &c. In the chronic form the same treatment continued daily, with the compound of mayapple root (see Pharmacy) occasionally taken, or injections and hip-bath, also the alcoholic vapor-bath or wet sheet-pack.

INFLAMMATION OF THE KIDNEYS. (NEPHRITIS.)

SYMPTOMS.—General fever, pain in the region of the kidney, or back, extending to the groin and along the urethra to the neck of the bladder. The pain is deep-seated, often dull and obscure, but always increased by the erect posture, by coughing, sneezing, or by a firm pressure. It is also increased by straightening the leg of the affected side; there is a frequent desire to make water, with great difficulty or inability to expel the contents of the bladder. The urine is generally bloody at first, the bowels costive, with wandering pains, and the patient labors under great depression of spirits. *Causes*.—Hard water, gravel, violent exercise of the muscles of the back, hardened fœces in the color, &c. *Diagnosis*.—It may be distinguished from lumbago by the pain following the course of the urethra, and by the difficulty of urination or letting the water.

TREATMENT.—If there is fever the warm hip-bath must be used; but if not much fever the cold hip-bath would be best, with warm foot-bath, and the other means, as cold cloths, alcoholic vapor-bath, injections, and a tea drank cold of water-melon seeds or pumpkin seeds; this tea or cold water must be taken freely.

INFLAMMATION OF THE BLADDER. (CYSTITIS.)

This disease most frequently affects the neck of the bladder, and is generally known by pain and swelling in the hypogastric region or over the bladder, the pain being increased by pressure, with a sense of internal heat and tension; frequent desire to make water, and extreme difficulty in passing a few drops, with violent bearing-down efforts, and often there is retention; there is also a chronic form of inflammation of the bladder,

which occurs in old people, and is often occasioned by stone, which terminates in thickness, and even ulceration of the mucus membrane, &c. *Causes*—Whatever interrupts the balance of the circulation, &c.

TREATMENT.—In the acute stage, prompt means must be used to empty the bladder, say the hot hip-bath at first for half an hour, or until relief is experienced, with hot foot-bath; this must be followed by the cold cloths and compress, and must be worn constantly and frequently repeated and renewed, and occasionally using the warm hip-bath and foot-bath. If there is fever it must be treated with the alcoholic vapor-bath or wet sheet-pack; also diuretic teas must be taken, as water-melon seeds, pumpkin seeds, parsley, &c., with tepid injections; after the bowels have been freely moved with injections of warm or tepid water, then the cold injections must be used as much as the bowels can easily hold; always remember and give a hand-wash or rub-sheet after the vapor or wet sheet-pack, followed by brisk friction. In the chronic form which is complicated with abscess or ulceration of the prostrate gland, or gravel or lithic acid, &c., general constitutional treatment is indicated, as wet sheet-pack, hip-bath, foot bath, rub-sheet and the compound powder of may-apple root, (see Pharmacy); also a Pill composed in the following manner: Diuretic Pill, Solidified Copaiba, one part; Alcoholic extract of cubebs, one part; mix and form into pills the size of a common pea, and give one or two three times a day. This is one of the most valuable pills or remedies ever used, in all such cases as clap, gravel, lithic acid, and irritation of the prostrate gland or neck of the bladder. I have used this pill where all other remedies were of no use, with the very greatest of success.

INFLAMMATION OF THE BOWELS. (ENTERITIS.)—

SYMPTOMS: Here there is more or less fever, acute pain in some parts of the abdomen, gradually extending over the whole; the pain is increased by pressure, like inflammation of the stomach, with tension and swelling; the patient lies on her back with the knees drawn up, and can scarcely suffer the weight of the bed-clothes. The bowels are usually obstinately costive; but sometimes diarrhœa attends, and there is constant sickness of the stomach, with more or less bilious or fecœal vomiting, great thirst, dry burning skin, urine high-colored and lessened in quantity. *Causes*—Long-retained and hardened fecœs; constipated food; internal poisons; and impure aliments. *Diagnosis:* This is known from colic by the presence of fever. In colic the pain is diminished by pressure, and here aggravated.

TREATMENT.—The costiveness of the bowels requires free and copious tepid injections, also an ounce of castor oil may be given every two hours, until it acts upon the bowels; warm hip-bath and hot foot-bath, with fomentations or cold cloths with the compress. If diarrhœa is present warm hip-bath, with cool injections; all stimulating remedies, and diet must be avoided, and also the alcoholic vapor-bath when there is fever, or the wet sheet-pack, followed by the alkaline rub-sheet or hand-bath. Should vomiting be a predominant symptom, the following may be given with great advantage: Spearmint Tea, half a pint; Saleratus, a teaspoonful, and give a tablespoonful every hour. Nutrition, arrow-root, barley-water, &c.; this treatment must be repeated. In the chronic form, the same treatment repeated daily, with the Neutralizing mixture made as follows: take Rhubarb pulverized, one teaspoonful; Saleratus pulverized, one teaspoonful; Peppermint plant pulverized, one teaspoonful; boiling water half a pint, strain and sweeten with loaf-sugar, and add a tablespoonful of brandy. *Dose.*—One or two tablespoonsful every quarter, half or one or two hours, according to symptoms. For children in proportion to their age. This is also one of the most valuable preparations known in Cholera-morbus, cholera-infantum, or summer-complaint of children, diarrhœa, dysentery, &c. Its operation and effects seem to render it an almost infallible remedy. Also, where there is obstinate costiveness, the compound powder of mandrake, or may-apple root (see Pharmacy,) may be used with success.

INFLAMMATION OF THE WOMB. (HYTERITIS.)—This disease is characterized by fever, heat, tension, tumor, pain in the region of the womb and vomiting. This also takes place after delivery, particularly where the labor has been long protracted, where instruments have been used, or where the lochial discharge which should have taken place has been stopped by an exposure to cold. Hyteritis is accompanied by pains in the abdomen or belly, which are greatly aggravated upon pressure of the hand, as also by tension or lightness of the surrounding parts; increased heat of the whole body, great thirst, nausea or sickness of the stomach and vomiting. The pulse is weak, but hard and frequent; the bowels generally costive; the urine high-colored and scanty; the secretions of milk are somewhat interrupted; and the lochial discharge much diminished if not fully suppressed. There is danger if neglected, but if promptly treated not the least.

TREATMENT.—Sweating must be produced as soon as possi-

ble: take warm teas with the alcoholic vapor-bath, with hot foot-bath, followed by the tepid hand-wash or rub-sheet; also, if there is much fever, warm hip-bath with warm foot-bath, but if there is not much fever present, the cold hip-bath answers the best. Never forget the cold or hot cloths with the compress, often repeated and changed, cool injections both into the womb and rectum; here also, the compound powder of may-apple root is an excellent remedy to regulate the bowels, but no stimulating food must be taken. If this takes the chronic form treat more with cool applications than with warm, daily repeated as in ether cases.

ERUPTIVE DISEASES.

DESCRIPTION.—We generally designate under the form of “exanthemata” every species of eruption, pustule or not, which is rapidly formed on the skin. Most of this class of affections are characterized by fever, and nausea or vomiting, and at a particular time, numerous and small eruptions appear on the skin or surface of the body. Most of the diseases of this class are contagious, or vulgarly catching, and attack a person only once in life. While the contagious matter is in circulation, all the phenomena of fever are observed; but as soon as the eruptions, or the exciting cause are thrown to the surface, the fever subsides, and reappears when such humors or eruptions are absorbed; showing in the plainest possible manner, the nature and cause of fever.

SCARLET FEVER. (SCARLATINA.)—This term is used to designate an exanthematous or eruptive disease, characterized by fever, inflammation of the mucus membrane of the throat, and extensive scarlet-colored eruptions on the surface of the body; appearing generally between the second and sixth days of the disease, and terminating between the seventh and tenth. This exanthem appears in three distinct forms or species: 1st, *Scarlatina simplex*, or simple scarlet fever; 2nd, *Scarlatina anginosa*, affecting the throat; 3rd, *Scarlatina maligna*, malig-

nant. Symptoms are various: The first or mildest form commences with loss of appetite, sometimes nausea or sickness of the stomach, but rarely vomiting, a dull heavy pain in the loins and lower extremities, and occasional chill or shiverings, which are soon followed by fever. The surface of the body becomes hot, and the thirst is urgent; on the following day or sometimes later the rash appears upon the skin, but its commencement is not regular as that of other eruptive diseases; sometimes it breaks out first on the face, or on the neck, and upper part of the chest, and at other times on the trunk or on the limbs, and spreads in the course of twenty-four or thirty hours, over the whole surface of the body and extremities. The skin is always intensely hot, and affected with troublesome itching; sometimes there is considerable swelling of the face, throat and extremities of the body, a burning heat of the skin, thirst, sickness at the stomach, constipation of the bowels and difficulty of swallowing; it becomes less severe in some instances when the rash breaks out, but more frequently they continue until it begins to disappear. The second form of Scarlatina, with severe sore throat, commences with stiffness of the neck and lower jaw, and the throat is affected before the feverish symptoms are manifested; these are much more urgent than in the simple form of the disease above described, and precede the rash during two or three days. The edges of the tongue are red, and numerous red points are seen rising through the crust with which it is covered; the uvula or palate, tonsils, and all the back part of the throat are intensely red, painful, and so much swollen, that deglutition or swallowing is rendered distressing and difficult, sometimes impossible. The third form of Scarlatina, commences like the one last described, but the eruption appears at an earlier period, usually within twenty-four hours, advances slowly, and is seldom of a bright red color; it often recedes suddenly and reappears, and after sometime, the rose color which it first assumed changes to a livid red hue; the eyes are bloodshot and watery, there is great heat of the skin, with vomiting and oppression of the system.

Diagnosis.—Scarlet fever may be distinguished from measles, by the absence of cough, sneezing, and catarrhal symptoms, by the throat affection, &c. The books, or authors in general give us a list of terrible diseases following scarlatina and measles. In their lists are general dropsy, enlargement of the joints, scrofulous affections, discharges from the ears, ulceration of the glands of the neck, ophthalmia and inflammatory affections of the internal viscera. But, Dr. Trall in his *Hydropathic Encyclopedia* says, as in the case of measles, “I regard these consequences as owing much more to mal-treatment than all other causes put together; I think it to be certainly the case in both diseases.”

TREATMENT.—The treatment in the three varieties must be changed according to symptoms. In the commencement, an Emetic may be given of warm water, or which we think is better, Beachc's Emetic powder made as follows: Take Ipecac, Cephælis Ipecacuomha, 4 ounces; Lobelia, Lobelia Inflata, 4 ounces; Blood-root, Sanguinaria Canadensis, 2 ounces, pulverize separately, and mix thoroughly. *Dose.*—A scruple or half a teaspoonful, given every twenty minutes till it operates, drinking freely of some herb tea between time, as catnip, sage, &c., or warm water will help the operation a great deal, and to be taken in warm water or the above mentioned tea. Also, while taking this Emetic bathe the feet in hot water, with brisk friction, and after the operation or before the operation of the Emetic, administer the alcoholic vapor-bath, with hot foot-bath, and very cold cloths and compress to the affected parts; if the mouth and throat is affected, very cold water or ice taken into the mouth and retained there till warm, and repeated; sweat the patient there, and at the sametime drinking warm teas or water till perspiration or sweating starts right if the patient can bear it, and then put him to bed; he can take the alcoholic vapor bath in bed, and let him sweat there, while applying hot to the feet, and cold, very cold to the head and affected parts. Giving now cold water to drink as much as possible, or as much as is desired by the patient, this must be followed with the alkaline hand-bath, [see Introduction,] and dry clothing substituted; in the mean while the patient must have tepid injections, and warm or hot hip-bath, always in acute diseases, when the hip-bath is made use of cold or warm, hot foot-bath must be used at the same time. Particular attention must be paid to the bowels, by injections, &c.; keep the patient's feet always warm, by applying warm bricks or bottles to them while the patient is resting. Also our compound powder of may-apple root must be given if the bowels cannot readily be moved, with injections. A continual moisture of the skin must be kept up during day and night, repeating the above treatment daily or oftener if the patient don't get too weak; for this purpose the following will be an excellent remedy: A strong tea of equal parts of Sage and Elder blossoms, taken frequently warm or cold during the day. If the patient's throat is much affected, apply in the inflammatory stage cold as before said; cleanse and gargle the throat well several times a day, with a tea composed of equal parts of Sage and Golden-seal root, this is generally all required in the treatment, with caution to diet. The wet sheet-pack is also very good in the milder cases, but in the more urgent cases, the alcoholic vapor-bath is preferred; this treatment must be repeated daily till the patient has recovered. Be punctual and have good faith for it will surely cure if taken a little in time. Should you be called to a patient sinking of

debility, you must use stimulants; if the throat is affected and appears obstinate, the same may be used as a gargle, the following is the compound: Cayenne pepper, *Capsicum Annum*, 2 tablespoonsful; Common Salt, 1 teaspoonful; to this add half a pint boiling water; in 15 minutes after add half a pint of vinegar; let it stand an hour, then strain through a fine cloth, and give 2 tablespoonsful every half hour. This must also be used to swab and gargle the throat; yeast is also very good for gargles if there are putrid ulcers in the throat, the yeast must be mixed with milk, and a little honey added. If suppression of urine occurs, give a strong infusion or tea of Spearmint, and apply hops and vinegar, simmered together over the region of the bladder, or warm cloths with the compress, &c.

SMALL-POX. (VARIOLA.)—Of this disease there are two species: The distinct and the confluent. In the distinct small-pox the disease begins with an inflammatory fever; first chills, then heat and sweating.

Symptoms of the distinct Small-Pox.—The attack is characterized by the premonitory symptoms of a violent fever, as chills, or rigors, lassitude, headache, pain and weakness in the back and loins, tenderness about the pit of the stomach, frequent nausea and vomiting, drowsiness, and sometimes stupor or coma; with infants convulsions are frequent occurrences. These symptoms are succeeded by general heat of the body, dry skin, coated tongue, frequent pulse, and extreme restlessness, which continue until the eruptions appear, when they partially subside. During the third and fourth days the eruption extends to the sides of the nose, chin, upper lip, neck and wrists; then to the trunk and thighs, finally covering the whole body. About the fifth day little vesicles depressed in the centre, containing a colorless fluid; usually the eruptive fever further abates, or entirely disappears at this time.

Symptoms of confluent Small-Pox.—The eruptive fever is more intense, the strength is greatly prostrated, coma and delirium are frequent, and profuse diarrhoea or salivation is often present. The eruption is preceded by an erysipelatous efflorescence upon the face, from which the pustules emerge on the second day, in the form of small red points, which run together and form clusters resembling measles; the pustules are irregularly shaped and contain a dark, ischorous matter, instead of true pus. When the crusts begin to form the whole face is covered with one scab, which falls off from the fifteenth to the twentieth day. Bloody urine, and exhausting diarrhoeas occur.

Treatment.—As in all fevers, whether eruptive or not, the temperature of the body is the guiding principle in the treatment. To regulate the temperature and equalize the circulation, are the leading indications; the bowels must be moved by tepid injections, the alcoholic vapor-bath or wet sheet-pack, and give the patient as much water to drink as he demands. If vomiting is a predominant symptom give as before said, the Spearmint tea with Saleratus; when the vomiting is arrested, give injections or purgatives, such as the compound powder of may-apple root, [see Pharmacy;] and attention to the skin by giving a tea composed of Saffron and catnep equal parts, make a tea and give it warm. While in the alcoholic vapor-bath this tea must be used, being cautious not to sweat the patient too much, just till the sweat fairly comes, then put him to bed and give this above said tea frequently; also, warm applications must be kept to the feet, and warm foot-bath taken during the course, also after the wet sheet-pack the alkaline bath must be used either by hand-bath or rub-sheet, and the moisture of the skin must be kept up through the course. Should the heat of the body be great, the body must be bathed whether eruptions are present or not. Attention must be paid to particular symptoms, such as pain in the head, delirium, sore throat, &c.; to any of these parts that may be affected apply the cold cloths often changed, for sore throat give an emetic of warm water, or Beache's Emetic powder, [see Pharmacy,] aided by warm water or Boneset, Catnep, or some other tea. The throat must also be gargled with a decoction or strong tea of Sage or hyssop, equal parts, sweetened with honey, and a little borax added. When there is a great tendency to putrescency in the fluids, give a wineglassful of yeast three or four times a day; to keep up a determination to the surface give a weak tea of Virginia or small Snake-root; should the pustules or pox not come out right full, give a strong tea of equal parts of Virginia or small Snake-root and Elder-blossoms; this tea must be freely drank, with the warm wet sheet-pack of short duration, and oftener repeated; say from two, to three or four times a day, according to the heat of the skin; and the warm hip-bath must also be used if the patient has diarrhoea, with cool injections. If the patient is able to be up the treatment in the distinct and confluent are the same; the only difference is, that in the latter a more active course is called for. Diet: During the eruptive fever, the patient must be kept cool and easy, and weak and diluent drinks must be given, such as Mint, Balm and Catnep tea, or which is better if the eruption is out, is cold toast water; this can be taken with impunity in small draughts thro' the course, if the patient desires it. His nourishment should be Barley-water, Indian meal gruel, butter-milk and water, roasted apples, ripe fruit, and particularly mush or hasty pudding. This course of treatment will generally be very successful.

COW-POX, or Vaccine Disease. (VACCINA.)—The vaccine matter is usually inserted under the cuticle or skin, by three or four punctures in one or both arms; on the second day small, red, hard spots appear, which increase sensibly on the fourth and on the fifth become small pearly vesicles, and soon after surrounded by a pink or crimson flush. On the seventh or eighth day the areola becomes circular or angular, and about an inch in diameter. This disease requires no medication, save what is due to personal cleanliness, and temperance in all things.

CHICKEN-POX.—SWINE-POX.—This disease is characterized by slight feverishness, followed within twenty-four hours by an eruption of small, reddish pimples, appearing first on the back, very much resembling the first appearance of the eruption of small-pox. On the second day the pimples become small vesicles filled with a colorless or yellowish fluid; soon after a thin scab forms at the top without pus. About the fifth day the eruption disappears, without leaving any mark or cicatrix.

Treatment.—A daily wet sheet-pack, with rub-sheet, foot-bath and injections, this is mostly all required; if there should be high fever make use of the alcoholic vapor-bath.

MEASLES. (RUBEOLA.)—This exanthem is divided into two species, the Common and the Malignant—*Rubeola vulgaris*, and *Rubeola maligna*. The first species is the mild form; the second is the violent.

Symptoms.—The early symptoms resemble catarrh or influenza: cough, hoarseness, difficulty of breathing, frequent sneezing, itching of the face, smarting of the eyes and eyelids, thirst, &c. The eruption first appears on the fourth day, consisting of small red points on the face, thence extending downward over the body. These points do not rise into visible pimples, but are disposed in growing elusters; the fever rather increases with the eruption, and is attended with pneumonic symptoms, as cough, soreness of the chest, and oppressed breathing. It usually abates considerably at about the end of the first week. In the malignant or worse form the eruption is earlier and more irregular, often appearing of a dark or livid hue. The fever symptoms are more severe, the abdomen is very tender; the

head is delirious or comatose; the lungs are inflamed; and diarrhœa and convulsions often occur.

Treatment.—It is our duty in this disease as well as in small-pox, to assist nature in expelling the eruption, if her efforts are too feeble. The attention must be directed to urgent and particular symptoms, such as cough, restlessness, difficulty of breathing, &c. The first step must be warm foot-bath, and the alcoholic vapor-bath or wet sheet-pack, followed by the alkaline or common rub-sheet or hand wash, with brisk friction. Also, the bowels must be regulated by injections or the compound powder of may-apple root, [see *Pharmaey*]; if headache, cough or pulmonary symptoms are present the cold cloths with the dry over it, and often changed to the parts affected; if diarrhœa is present, warm hip-bath with cool injections. In the commencement, if the throat or lungs are affected an Emetic of Beache's Emetic Power, aided by warm water or diaphoretic tea, as eatnip, boneset or thorough-stem, &c. Should they not come out full, you will find a tea made and drank freely of Saffron, 2 parts; Virginia or small Snake-root, 1 part; make a tea, sweeten and give warm, to be repeated and as much drank as the stomach will bear; this with the other means above recommended will lessen and relieve all the urgent symptoms in the case. The treatment in both species are the same, as the mild needs but little attendance, and the malignant form more active treatment as above given. As said in *Scarlatina*, if the disease is treated punctually, no disease will follow measles, like in the old or Allopathic treatment, as one poison is thrown off by the efforts of nature, the old style is to introduce one half a dozen of drug poisons, which are really worse than the disease itself. Diet: Cold water must never be refused if the patient demands it or desires it. Gruel, ripe fruits, panado, barley and toast water, butter-milk whey, &c. The room should always be well aired, clean, and of a moderate temperature, and the clothes often changed. Patients recovering from these diseases should be very careful about their diet; their food for some time ought to be light, and in small quantities.

CEREBRAL DISEASES.

We understand by this class of diseases, those which proceed from a deranged or impaired state of the functions of the brain and the nervous system.

INSANITY or MENTAL DERANGEMENT. (MANIA.)—Insanity or Mania may be termed a false perception of things, in a want of due connexion of the train of thoughts marked by an incoherence or raving; and in resistance of the passion to the command of the will, accompanied, for the most part, with a violence of action and furious resentment at restraint; every species of madness, whether it has originated in the mind or the body, becomes the same by continuance. In madness the body as well as the mind must ultimately be affected; the mind being diseased, soon produces a disease of the body.

Symptoms.—The most common form of insanity is the intermitting, or that in which the paroxysms of the disease are divided by clear intervals. Sometimes it continues during life without any intermission. *Exciting Causes:* There are various causes of mental derangement; we may enumerate certain local diseases, such as enlargement of the bones, tumors, gout, dropsy, pregnancy, febrile diseases, dropsy of the brain, and other diseases of this organ, as palsy, epilepsy, apoplexy, headache, &c.; also profuse evacuations from bleeding, mercury or other causes. Perhaps the most common of all causes is the use of ardent spirits. Inordinate sexual desire is a fruitful source of insanity; and probably one of the most frequent causes of dyspepsia. Onanism, Self-pollution or Masturbation is a very prevalent cause, which is practised very frequently by young men and women. Gluttony, self-abuse, powerful stimulants, religious excitement, grief, fear, disappointment in objects of love, ambition or property, reverse of fortune, &c., are named by authors among the ordinary causes.

Treatment.—The cure of mental as well as physical diseases is to be effected, first, by reducing the system by suitable evacuations; secondly, by creating revulsive actions, by tonics and stimulating remedies; thirdly, by the influence of proper moral treatment. It is not necessary to give much medicine in general; if the bowels are habitually costive, close attention must be paid to the diet of the patient. Injections or the Hepatic Pill must be made use of, which is made as follows: Take extract of Dandelion, 1 ounce; Mandrake or May-apple root, pulv. 1 ounce; Bloodroot, pulv. 1 ounce; add a few drops of Oil of Peppermint or Spearmint, and form into pills of a common size. *Dose:* Three, night and morning. This pill is an excellent remedy. Bathing is extremely useful, and great pains must be taken to keep the feet always warm, and the head cool; and to avoid all sudden shocks or strong impressions which produces cerebral or excitement of the brain. The tepid, shallow, hip and foot-baths are the leading processes says Dr. Trall, in which I think he is correct. He further saith, if the patient is manageable the wet sheet-pack, follow-

ed by the dripping or rub-sheet. If the feet are cold either before or after bathing, give warm foot bath with brisk friction. Diet should be principally vegetables; but not those vegetables that cause flatulency or wind. All kinds of amusements ought to be made use of; music has a powerful effect in tranquilizing the mind, and may be practised with great benefit. Shakespeare has truly written: "Music hath charms to soothe the savage breast." Also, they ought to be traveling through interesting sceneries. Employment—they ought to be employed at something that is calculated to draw the mind upon one object and dispel gloomy sensations. Exercise: If the patient is not able to have any such employment, walking or riding out in the good air, must be resorted to, &c.

DELIRIUM TREMENS, or *Drunken Fit*. (MANIA POTU.)

Symptoms.—Mania Potu commences with nausea, vomiting or belching of wind; it seems to come on gradually, and several days elapse before it attains its greatest degree of violence. There is great wakefulness; the patient walks to and fro, raves and seems to be in the greatest agitation and distress of mind. He is apt to imagine that there are evil spirits continually before him, or haunting him. The patient often imagines that snakes are curling about him, and often cries out for assistance; he becomes angry and talkative. The system is usually more or less disordered during the complaint, with costiveness, loathing of food, &c. *Causes*.—It is principally caused by using stimulants in excess, and stimulating the brain to excess.

Treatment.—The first object is to allay the paroxysm or fit, by calming and supporting the nervous system, and afterwards preventing a return of the disease. In the first place when the stomach is foul; the patient having a fetid or bad breath, give him an Emetic of warm water or Beache's Emetic Power, [see Pharmacy,] aided by warm drinks. When the patient can be governed apply the wet sheet-pack, followed by rub-sheet; these both may be used cold if the patient don't feel too feverish, with brisk, very brisk friction; a daily tepid injection, or our common compound of May-apple root, may be used to regulate the bowels. Cold cloths to the head, and hot to the feet, repeat this treatment in the course, and the patient will soon recover. In all cases cold water may be drunk to any extent the thirst demands. Also, if the patient is very irritable, cold injections may be thrown up the bowels with great success, and even hip-bath warm.

EPILEPSY, or Falling Sickness. (EPILEPSIA.)—The muscles of the face and eyes are always much affected, and the countenance violently distorted; the tongue generally protrudes from the mouth, which discharges a frothy saliva; the lower jaw is strongly convulsed, and teeth gnashing upon the tongue, often wound it severely; sometimes the urine and fœces are discharged involuntarily. A profound lethargic sleep succeeds the severer attacks, from which the patient at length awakes, unconscious of having suffered pain. When the disease is owing to an organic cause, the attack is more abrupt; the patient falls prostrate; there is more rigidity and less spasmodic agitation of the muscles, and optical illusions are very common. This form of Epilepsy has been called falling-sickness, or cerebral epilepsy.

Prognosis.—The chance of cure will be favorable or unfavorable, as the symptoms do or do not indicate functional derangement or local irritation as the cause. When connected with deficiency or malformation of brain, organic changes, or exhausted nervous power, it is generally and probably always, incurable, saith Dr. Trall.

Treatment.—If the disease is caused by any thing that deranges the nervous system, or by anything else, as worms, &c. For the first, this cause must be removed, as soon as the paroxysm or fit is removed; for if it is not of a malformation of the cranium or skull; (and even there, I have seen it cured, while I was tending lectures at Cincinnati, with an operation,) it principally can be cured under a thorough and persevering course of Eclectic treatment, or at least a very great benefit gained by it. Here in the paroxysm or fit we must apply very cold cloths to the head, and hot foot-bath, followed by great friction, and hot bricks to the feet, &c.; also, cold water ought to be drank and poured over the head by an attendant, holding the patients head to one side of the bed or chair in which he is placed; and another attendant pouring with a pitcher an ordinary stream over his head, and followed by the cold cloths and compress; also the hand-bath warm, may be used at this time with brisk friction over the whole body, and must be repeated at every fit. In the meantime you must use such means as will strengthen the general nervous system, say with the general treatment to the skin, and by tonics, &c. The daily wet sheet-pack, followed by the alkaline rub-sheet or hand-bath, with brisk friction; daily hip-bath and foot-bath tepid or cold, with the wet jacket or bandage, [see Introduction;] also in the forenoon or afternoon the shower bath, followed by friction, and every now and then an Emetic, either of warm water or Beache's Emetic Powder, [see Pharmacy,] and with injections either cool or tepid, occasionally repeated to regulate the bowels.

Or aperients, say for instance a pill, composed of the following: *Nervous or Anti-Dyspeptic Pill*—Take Aloes, *Alc Socotorina*, 4 ounces; Castile Soap, 2 do.; Colocynth, *Cucumis Colocynthis*, 2 do.; Gamboge, *Stalagmitis Gambogia*, 2 do.; Extract of Gentian, *Gentiana Lutea*, 4 do.; Oil of Cloves, *Eugenia Caryophyllata*, 2 do.; Mix, and form into Pills of the ordinary size. *Dose*: One or two morning and evening, according as they operate. This is a very valuable pill: while it cleanses the stomach, it restores the tone, without causing debility; as an aperient they are not taken so often. When the cause is in the uterine system or womb, (scanty and laborious courses or menses, and the peculiar periods at which the fits recur), our measures must be directed to the restoration of the natural determination to the uterus or womb. Here recourse must be had to warm hip-bath, stimulating injections, as Golden-seal, 1 ounce to a pint of boiling water, boiled a short time, strained, and used when cold; or warm water may be used instead of the above infusion. The head must always be kept cool, and the feet and hands warm; if the patient complains of headache, giddiness, stupor, or any other mark of permanent fullness in the blood-vessels of the brain, then purgatives, and sudorifics, or means of sweating must be resorted to, by giving warm teas, as boneset, catnep, &c., with the alcoholic vapor-bath, or the wet sheet-pack, with very cold to the head, and warm to the feet. A mild and unirritating diet will aid the effects of the cure much; early going to bed and rising, regular exercise, abstinence from all fermented liquors, washing the head and neck with cold water, and bathing the feet. As a tonic the following formula combines tonic anti-spasmodic properties: Take Garden Pæony, 1 ounce; Pure Peruvian Bark, 1 ounce; Virginia or small Snake-root, 4 drachms; Wild Valerian or Ladies Slipper, 1 ounce. Extract all the strength from these by repeated boilings, and strain; then simmer to one quart, and add a pound of loaf-sugar and half a pint of Madeira wine. Of this the patient may take from half to a wine-glassful three or four times a day—fasting. I have found, saith Dr. Beach, that fine salt has a very salutary effect in epilepsy: as soon as there are premonitory symptoms, give a teaspoonful in a little water, and if practicable, repeat in fifteen or twenty minutes, it shortens the fit, and may be taken twice or three times a-day. The above will be well calculated to remove the disease. Also, Dr. Beach remarks: a friend of mine states that Chinese Porcelain, pulverized, given daily in from half to one teaspoonful doses, is a certain cure for the epilepsy.

Should the above medicine fail if taken for some length of time, change and use the following medicine, with the general other means before said, for a length of time; and then the first may be given again, and so sometimes changed one to the

other which has rather a better effect. The following is the medicine: *Restorative Wine Bitters*, take Comfrey-root, *Symphytum officinalis*, 1 ounce; Solomon's-seal, *Convallaria multiflora*, 1 do.; Spikenard-root, *aralia palmatus*, $\frac{1}{2}$ do.; Gentian-root, *gentiana lutea*, $\frac{1}{2}$ do.; Chamomile flowers, *anthemis nobilis*, $\frac{1}{2}$ do.; bruise all together, and then add four quarts of Malaga or other good wine; let it stand one week, and strain. Before you add the wine, you better pour enough boiling water over the bruised ingredients to cover them, and immediately cover them tight; when cold, then add the wine. *Dose*, half a wineglassful three or four times a day. This is a very useful tonic in all cases of debility, dyspepsia, chorea, neuralgia, and all nervous diseases, particuar in female diseases, &c.

Diet.—It is very necessary to diet in epilepsy, and it should be light and nutritious. Ardent spirits must be avoided; also all fatigue, and everything calculated to excite the passions. A physician in Connecticut was cured of this disease by adhering to a rigid course of diet; he avoided all fat and greasy substances, and rose from the table with a desire for more food. Exercise is of great service, and the patient to breathe a free pure air; he should be very careful to avoid all extreme of heat or cold.

APOPLEXY. (APOPLEXIA.)—This disease is one of the results of a constipated, obstructed, plethoric or full-blooded, and over-burdened body. Excessive eating, with defective cleanliness, and some internal visceral obstructions or compressions, are the obvious conditions on which the apoplectic fit depends; and hence we rarely witness the disease except among the full-fed, the corpulent or morbid fatness, and the gross or high livers; and even then we almost invariably find inattention to the functions of the excreting organs or outlets of the body among the predisposing circumstances.

Symptoms.—Generally there are premonitory symptoms of apoplexy, which may be termed incipient or commencement; it is in this stage of the disease that the most benefit from treatment is derived. In the first state of the disease there are usually a dull pain in the head, weakness, giddiness, particularly on stooping down, dimness of sight, drowsiness, loss of memory, faltering of the tongue, bleeding at the nose, flushed face, heat of the head and vomiting. But its attack is often sudden, when the person falls to the ground without warning, and lies as in a deep sleep, from which he cannot be roused; or he may be convulsed, foam at the mouth, and the saliva or

spittle be blown from the mouth with considerable violence. The limbs are rigid, motionless, or convulsed; the bowels are obstinately costive, or the fœces pass involuntarily; the urine is passed unconsciously, or retained until the bladder is full, and then dribbling away. The pulse is variable, it may be full, hard and quick, or weak and frequent.

Prognosis.—Apoplexy is not necessary fatal, for patients frequently recover entirely from the first attack, and occasionally from the second; but the disease is liable to return whenever the person from any cause whatever, becomes excited, and sooner or later, generally proves fatal at last—commonly on the third attack. There is, however, a less severe form of apoplexy from which persons may experience repeated attacks without succumbing, or yielding, but which at length reduces them to a state of mental weakness, little short of idiocy.

Treatment.—The object to be accomplished in this complaint will be during the paroxysm or fit; 1st, to suspend it by recalling the blood from the brain to the surface and extremities; 2d, to prevent a determination of blood to that organ. When called to a patient laboring under a fit of apoplexy, prompt and energetic measures must be put in use. The patient should be immediately removed to a pleasant, airy and cool place; and placed in a recumbent position, to favor a return of blood from the brain. All tight bandages or ligatures must be removed from the neck. The feet and legs must be immediately bathed in hot water, the feet may remain fifteen to twenty minutes in the water, with friction with the hand to them. The whole surface must be bathed with a stimulating bath or hand-bath: say the alkaline bath or a weak tincture of Cayenne pepper, made as follows: Take Cayenne pepper, one ounce; add one pint of alcohol, and macerate for one week, and felter; this must be applied very warm. Also, warm bricks or bottles must be kept to the feet, and cold water pouring over the head; if the fit continues apply the pouring head bath for a quarter or half hour, several times a day. If the patient can take nothing by mouth, a large injection or clyster, should be immediately administered, made as follows: Take tea of Lobelia and Cayenne pepper, of each 1 pint; Milk, 1 pint; Sweet or Olive Oil, 1 gill; Molasses, 1 gill; fine Salt, 1 teaspoonful; Mix, and introduce the whole with a syringe. The patient should be covered in bed in order to excite perspiration or sweating. Hot bricks covered with cloths wet with vinegar, must be applied to the feet, to assist in recalling the blood from the head and promote sweating; in this condition the alcoholic vapor-bath may be administered, with cold very cold cloths repeatedly applied to the head, in the following manner: Place a chair in front of the bed, and turning the back from the bed; then put the

blanket and other bed clothes over the whole chair, being particular to have around the chair tightly closed up, to prevent the vapor from escape; then put your spirits into a tea saucer or cup, and you can occasionally feel whether it is too hot or not, if it is too hot lift the blankets a little, and let fresh air in. Be at this time very punctual to keep the head cold, and feet hot, or warm; continue this according to circumstances, fifteen to twenty minutes, &c., and repeat several times a day. In the meantime the hot fomentation [see Introduction] to the abdomen, and repeated every two or three hours, and the feet often bathed and rubbed with the warm flannel or dry hand rubbing. No attempt should be made to give anything to the patient by the mouth, until the breathing is materially relieved, and then moderate draughts of cold water should be given, and at this time let the patient take a brisk purgative: say the compound powder of May-apple root, with as much Cayenne pepper added to every dose, as can be retained on a five cent piece.

Diet.—Much depends upon diet in apoplexy, it is often brought on by high living, inducing plethora or full blooded habits; and therefore may be prevented or cured by an opposite course of living. No meat or high-seasoned victuals must be indulged in, nor wine, fermented liquors or ardent spirits. But the patient should confine himself to a cooling, spare, vegetable diet, strictly temperate; keep regular hours in eating, take habitual exercise in the open air, take daily bath, and avoid much fatigue or undue exertion, and intense application to study, or reflection on gloomy subjects calculated to depress the spirits. He must be careful not to stoop, or continue in a bended posture, and avoid sudden changes from heat to great cold, depressing passions, &c. Sleeping on a hard mattress, with the head supported on air-pillows, is particularly recommended to patients predisposed to this disease, or who have already suffered from it. By this course the patients have often been cured from the first symptoms.

CATALEPSY. (CATALEPSIA.)—This disease consists in the temporary suspension of voluntary motion, and of consciousness and volition, the exact position of the body remaining the same as it was when the attack came on. It generally lasts but a short time, when it subsides, leaving the person in the same condition as formerly, without any disease or recollection of anything that has passed.

Symptoms.—The disease sometimes commences with distinct, but brief, premonitory symptoms; but generally the attack is sudden, and begins without any warning, but when there is notice given of its approach, it is known by swimming in the head or headache, lassitude, pain in the breast, sense of heaviness, tremor of the hands and legs, flatulence, yawning, &c. When an attack commences, it is very sudden, and the patient remains in the same position, like a statue, without being able to move a single finger; the eyes remain immoveably fixed either open or closed. If a limb is changed, it still remains fixed in the same position, until the paroxysm subsides, and all senses are entirely suspended. The continuance of a fit of catalepsy varies from a few minutes to several days; the patient sighs deeply when it leaves him. This disease is sometimes complicated with epilepsy, hysteria, &c.; and it seems to be similar, or nearly allied to what is called “a trance,” and also “ecstasy.” It may go off spontaneously, or may be removed by treatment and proper diet.

Causes.—This disease may arise from various causes: from passions, intense application of mind to any study or pursuit, suppressed customary evacuations, worms, a morbid state of the stomach and alimentary canal, plethora, or full-blooded, &c.

Treatment.—The treatment is similar to apoplexy and epilepsy; during the paroxysm or fit, friction to the surface and extremities, and particularly around the heart, with hot foot-bath, and cold cloths to the head, heart, &c. Afterwards the disease must be treated on the general principles; all the secretions and excretions regulated. The stomach, bowels and skin should be kept in a healful tone; also, suitable diet, exercise, &c.

LETHARGY, or STUPOR. (COMA.)—Lethargy is generally a symptomatic disease, arising from apoplectic symptoms, or from a morbid state of the stomach, or some other complaint. It may also arise from the use of opium or other narcotic substances.

Treatment.—Sometimes the drowsiness or lethargy proves exceedingly troublesome, as the person affected with this complaint frequently falls asleep, contrary to his wish. When this is the case, the best and most effectual remedy is an emetic, administered occasionally; say warm water and Beache’s Emetic Powder, also bathing the feet, &c. The bowels must be kept regular with injections or the Anti-Dyspeptic Pill, [see Pharmacy,] also a light diet, with daily bathing the whole body,

either by shower-bath, rub-sheet, or any other convenient way. Also, exercise and pure air is necessary.

FAINTING, or SWOONING. (SYNCOPE.)—Fainting consists in a decreased action, and sometimes total cessation of the pulse and breathing, coldness of the extremities, &c.

Causes.—Persons of delicate constitutions are subject to fainting on slight causes, the most frequent cause is blood-letting; when fainting frequently recurs without any obvious cause, a morbid state of the heart or brain is to be suspected.

Treatment.—As soon as the patient can swallow, a draught of cold water must be administered, and while the fit is on, cold water poured into the face and over the head, with friction to the feet with warm flannel or the bare hand, in a recumbent position, with a good free current of cool air, this will soon give relief. If the fit is prolonged apply warm foot-bath, with cold cloths and compress to the stomach. All tight bandages, neck-cloths, corsets, &c., must be immediately removed.

GIDDINESS, or DIZZINESS. (VERTIGO.)—Dizziness is generally symptomatic of some other diseases, such as dyspepsia and hypochondria; or it may be a premonitory symptom of apoplexy, over-determination of blood to the head.

Causes.—By loss of the balance in the circulation, between the arterial and venous systems; by extravasation within the skull; by indigestible substances taken into the stomach; it is also produced by dilatation of the cavities of the heart, and disease of the valvular tissue. Worms, excessive use of ardent spirits, opium and other stimulants, cause convulsions. It often proceeds from difficult or obstructed menstruation or monthly courses of females.

Treatment.—First step remove the cause; if it is symptomatic of some other disorder, that must first be removed, in order to cure it. An Emetic is an excellent remedy if it is a primary affection, or apparently seated in the head or stomach, also foot-bath, &c.; in all cases the bowels must be kept free, by plain, coarse food, and injections or purgatives if necessary. The skin kept open by daily bathing, &c.

NERVOUS DISEASES.

This class of diseases is apparently confined to the nervous system. They are usually characterized by irregular motions of the muscles or muscular fibres; the brain, uterus and stomach are also implicated.

HYSTERICIS. (HYSTERIA.)—This disease is characterized by a rumbling noise in the bowels, followed by a ball ascending to the throat, attended with a sense of suffocation, stupor, insensibility, convulsions, laughing and crying without any visible cause, sleep interrupted by sighing and groaning, attended with flatulence.

Symptoms.—A sense of nausea or sickness, flatulency, palpitation, depression of spirits, weeping, crying, &c. The fit soon follows, indicated by a coldness or shivering over the whole body; quick fluttering pulse, and a feeling of acute pain in the head. However dreadful and alarming an hysteric fit may appear, still it is seldom accompanied with danger; and the disease never terminates fatally, unless it changes into epilepsy or mania, or the patient is in a very weak or reduced state.

Diagnosis.—A pain in the left side is generally felt, and is usually situated immediately below the left breast, in a hollow formed between the cartilage of the fifth, sixth and seventh ribs; it is generally so circumscribed that it may be covered by a shilling, and is of the gnawing kind. There is always a derangement in the nervous system and the uterine functions.

Causes.—The causes are various, and it generally arises from certain passions operating upon a feeble constitution; constipated bowels, excessive evacuations of blood letting, obstructed menses, plethora, hot, enervating or weakening drinks as tea, coffee, &c.

Treatment.—First place the patient in a recumbent position near a current of cool air, loosen all bandages or tight dresses, so that the circulation of blood may be at liberty; then commence the pouring of cold water over the head and chest, till the patient becomes chilly, and apply warm to the feet by bathing and friction, cold to the head may be applied for hours, and warm to the feet; as soon as the patient can swallow give an Emetic of Beache's Emetic Powder. If it should be found impracticable to give medicine by the mouth, the following may be used as an injection: take a strong infusion, catnip or other

herb tea, 1 pint; milk, $\frac{1}{2}$ pint; olive oil, 1 gill; molasses, 1 gill; fine salt, 1 small teaspoonful, and mixed. Let the whole be, if possible, introduced at a time, blood-warm, with a French Syringe. This alone rarely fails to moderate the symptoms very speedily, and induces a complete intermission of the spasmodic action. Also, fomentations are very necessary, applied to the abdomen and renewed as often as they get cold, or warm cloths in the same manner. Now if the paroxysm or fit is arrested we must prevent a return of it, which the patient is very liable to, and this must be effected by restoring the tone of the system. We here may commence with a moderate physic, as this will cleanse the stomach and bowels, and prepare the way for other means; for this purpose the anti-dyspeptic pill is the best, and the bowels must be kept regular (which are here principally costive) by this pill or injections, and diet. Also a mild emetic of warm water, or Beache's Emetic Powder may be given once a week. After the bowels are cleansed by a physic, give the Restorative Wine Bitters [see Pharmacy,] three times a day before meals, in doses of a small half a wineglassful; and at the same time daily bathing the feet, and whole surface. Several times a week a wet sheet-pack, followed by a rub-sheet, &c.; also, daily hip-bath, with a mild vegetable diet, and no coffee or tea dare be taken. Prevent passions or emotions of any kind.

HYPOCHONDRIA. (HYPOCHONDRIASIS.)—By this term is understood a disordered or diseased state of the mind, arising generally from debility of the nervous system, connected usually with dyspeptic symptoms. It is variously denominated low spirits, &c. In this complaint the patient's mind is harrassed with great anxiety on the slightest grounds, principally by imaginary evils, &c.

Symptoms.—This disease is attended with inactivity; a want of resolution with respect to all undertakings; lowness and dejection of spirits; flatulency in the stomach and bowels; acid eructations; costiveness and copious discharges of pale urine; giddiness, dimness of sight and palpitations; the judgment is impaired, so that almost everything is viewed in a wrong light; there are a variety of other symptoms, &c.

Causes.—This disease seems to depend upon a loss of tone or energy in the nervous system, induced by various causes, such as close and intense study, great anxiety of mind, leading an inactive, indolent or sedentary life, immoderate venery, or a use of crude, flatulent, or unwholesome food, irregularity, intemperance, &c.

Treatment.—First, restore the nervous energy; second, mitigate or remove the exciting causes of the complaint; third, give tone to the stomach and alimentary canal, and promote the secretions. The moral or mental medication should consist of pleasant, cheerful and sensible company, with a light and easy, yet regular and steady business occupation; occasionally diversified by reading sound, scientific, useful, and practical books, &c. Also, good moderate exercise in open air, with daily bathing with cold water, if in the summer season; if in the winter season warm baths may be used, followed by brisk friction, if any organ is affected, such as the stomach, bowels, &c.: attention must be paid to them, with injections, or an emetic administered occasionally, followed by a mild purgative, as our compound powder of may-apple root, [see Pharmacy,] after this the bowels must be kept regular by injections or laxatives as the anti-dyspeptic pill given occasionally at bed-time. The nervous pill is also excellent, [see Pharmacy.] The next medicine given will be tonics, such as the Restorative Wine Bitters, [see Pharmacy.] If there is pain in any parts, or headache, give daily foot-bath, and apply the cold cloths and compress to the parts.

PALSY. (PARALYSIS.)—This disease affects the nervous system, and is characterized by a loss of motion or feeling, or of both, in one or more parts of the body. When one entire side of the body downwards is affected, it is called by professional men, "*Hemiplegia.*" If one half of the body, taken transversely, paraplegia, and when confined to a particular limb or set of muscles, it is called, "*Paralysis.*"

Symptoms.—Palsy usually comes on with a sudden and immediate loss of the motion and sensibility of the parts; but in a few instances it is preceded by a numbness, coldness, paleness, and sometimes slight convulsive twitches. When the the head is much affected, the eyes and mouth are drawn on one side, and the memory much impaired, &c.

Causes.—The same general causes which tend to cause apoplexy, are among the causes of palsy; although this disease is more dependent on organic changes than apoplexy, and when merely functional, is more generally connected with nervous exhaustion. The ancients regarded apoplexy and palsy as modifications of one essential disease; apoplexy being a universal palsy, and palsy a partial apoplexy.

Special Causes.—Most of the causes of apoplexy are, enlarged or indurated liver or spleen; constipation; pungent stimulants; acrid medicines, &c. Sudden and extreme alterations of temperature; loss of nervous communication from structural degeneration and decay.

Treatment.—In case the disease should attack suddenly and violently, the same course must be pursued as in apoplexy. Spasmodic symptoms are very common in this complaint. The person is seized with a violent twitching of the muscles of the face, generally those on one side of it, which occasions very great distress. Here the Galvanic Battery may be used by applying it to the affected parts; the shock must be light, and of duration of fifteen to twenty minutes, or longer. At the same time strike for the cause, give a purgative, as the compound powder of may-apple root, with red pepper or cayenne pepper added, as much to every dose as will lay on a five cent piece; also, hot foot-bath and hip-bath, with brisk friction to the parts; also a stimulating linament to the parts, often repeated, say Tincture of Cayenne pepper, with flannel applied. If this is too stimulating, make use by applying repeatedly, and keeping wet the parts affected with flannel, dipped in the following: Cayenne pepper, 1 ounce; Catnip, 1 handful; Hops, 1 handful; this boiled in vinegar till the strength is extracted, and strain while hot through a fine cloth, and add 1 teaspoonful of salt. This must be very warm, and applied in the above manner. Also the alcoholic vapor-bath must be used, with a tea drank of catnip, &c., to promote perspiration, or in other words equalize the circulation. Between times electricity must be made use of as before remarked. If the lower part of the body is paralyzed, and the bowels cannot be moved by purgatives, the following injection must be administered: Take red Cayenne pepper, 1 teaspoonful; Lobelia, 2 teaspoonsful; 1 pint of boiling water. After standing a sufficient length of time to extract the strength, sweeten with molasses, and add half a pint of milk and a gill of sweet oil; inject warm and as much of it as the patient can bear, this excites the action of the bowels, and promotes evacuations. Salt and water makes a very good injection if the above cannot be conveniently had. It is very necessary in these cases to make use of a strong alkaline bath, as a tincture of red pepper and brandy to the warm water; great friction must follow this; this bath may be used after the alcoholic vapor-bath, and oftener; any parts paralyzed must be treated with the above compound, and the flannel cloths often changed and renewed, also the wet sheet-pack, the sheet wrung out of the hot alkaline solution, duration short and often repeated. The bowels must be kept regular, and means may be taken to cleanse and purify the blood, and give tone to the nervous system; here give the Alterative Syrup, [see Pharmacy,] twice a day, morning and evening, in doses of one to two teaspoonsful, and the Restorative Wine Bitters once a day, before dinner in doses of a half a wineglassful. All these means must be used according to circumstances, always remember brisk friction, attention to the bowels, foot, hip, hand-bath, &c.

Diet : In the palsy which arises in persons of a full habit, the diet should be light and spare ; but when the disease proceeds from relaxation or debility, which is generally the case, or makes its attack at an advanced period of life ; it ought to be invigorating, warm, and nutritious aromatic vegetables, as mustard, horse-raddish, &c. Exercise is of great importance in palsy ; if the patient is capable of walking, he should take such exercise daily ; but if deprived of the use of his legs, he ought to be carried abroad in a carriage of some kind. Cold, moist, damp air should be carefully avoided.

ST. VITUS'S DANCE. (CHOREA SANCTI VITI.)—This singular disease is characterized by a twitching and convulsive action of certain muscles, usually confined to one side of the system, and affects principally the arm and leg. It is chiefly incident to young persons of both sexes, but much oftener in the female, than the male sex. It attacks particularly those of a weak constitution, or whose health and vigor have been impaired by confinement, or by the use of scanty and improper nourishment ; it seldom attacks after puberty, and is always gradual in its approach. During the forming stage the appetite is variable, and sometimes ravenous ; the bowels costive ; vertigo ; palpitation of the heart ; oppression and anxiety in the præcordial region ; fullness and tension ; cold feet ; variable disposition ; itching in the nose, &c. The first manifestations of the spasmodic affections are slight, irregular motions of the muscles of the face, and an unsteadiness in the gait, progression becoming starting and hobbling. The irregular involuntary actions gradually increase in violence and constancy, until the arms and legs are almost in continual motion, and the countenance variously and uninterruptedly distorted. The voluntary muscles alone are affected.

Special Causes.—Repelled eruptions ; lead ; mercury ; costiveness ; narcotics ; worms ; also from morbid stomachs ; teething ; acidity in the bowels ; from offensive smells ; and from violent affections of the mind, as anger, fear, &c. It may arise from debility, and extreme irritability of the nervous system.

Treatment.—The indications in this complaint are, first to remove the exciting causes ; second, to remove the constipated state of the bowels, and regulate their functions ; third, to strengthen the general system. In the first place, if you find the stomach deranged administer an emetic, this will evacuate the stomach, and impart new tone to it, as well as to the ner-

vous system; the following day purgatives or injections, and this repeated weekly, or oftener; here Beache's Emetic Powder, and the Compound Powder of May-apple root, and after thus cleansing the stomach and bowels, the Restorative Wine Bitters must be taken in proportionate doses. The above indication of vomiting and physicing, or cleansing the stomach and bowels may be accomplished with warm water as emetic and injection. Also, here the alcoholic vapor-bath, or wet sheet-pack, followed by the alkaline or common rub-sheet or hand-bath, with friction, hip-bath, warm foot-bath, and the wet jacket or bandage to the stomach, &c., this daily repeated; water drinking and care to diet, will soon eradicate a cure. The following means Dr. Beache recommends as specific: take scutellaria, or scullcap, 1 ounce; boiling water, 1 quart; strain and sweeten with loaf-sugar. Let the patient drink freely of this through the day, and continue it alternately, one after another with the tea of Valerian, *Valeriana Officinalis*. *Diet*: A diet which is both nutritious and easily digested must be used, such as brown bread, wheaten grits, potatoes, and a moderate quantity of the best fruit, &c.; also everything calculated to excite mental affection must be avoided, as anger, &c.

PULMONARY DISEASES.

This class of diseases includes affections of the respiratory organs or lungs, of either the parenchyma of the lungs, air-vessels, or mucus membrane of the bronchia. They are usually characterized with more or less inflammatory action, unequal circulation and congestion. There are present fever, pain, debility and constriction of the præcordia or front of the thorax.

CONSUMPTION. (PHTHISIS PULMONALIS.)—*Symptoms.*—They may arise from various and distinct pathological conditions. They may depend on: 1st, Chronic Bronchitis; 2d, Ulceration of the larynx, trachea or wind-pipe; 3d, Chronic Pleuritis; 4th, Inflammation and suppuration of the substance of the lungs; 5th, Tuberculous matter in the pulmonary tissue, constituting genuine phthisis pulmonalis or consumption. The first variety is generally the result of catarrh, and usually called catarrhal phthisis. This, of all the varieties of consumption, is the most sanable or curable, particularly so long as the inflammation of the mucus membrane does not extend to the subjacent parts, or has not terminated in ulceration. The diag-

nostic symptoms in the early stage, are: Countenance pale, lips bluish, hands and feet often cold, and the temperature of the surface variable; cough deep, and expectoration free from the beginning; slight soreness in the pharynx; much oppression, but little or no pain in the chest; cough rarely excited by full inspiration. Cough always severest in the morning, attended with wheezing respiration, until the mucus collected during the night is expectorated. In all these circumstances it differs from tuberculous phthisis. *Tubercular Phthisis*.—This variety occurs only in persons of a strumous or scrofulous diathesis. Tubercles are never formed without a natural predisposition to them. They are scarcely organized, being probably formed by exudations into the cellular tissue of the lungs. They do not always lead to consumption, remaining dormant sometimes without materially affecting the general health; their formation is sometimes very rapid, in which case the usual phenomena of inflammation generally attend.

Causes.—The causes of consumption are numerous. Among the most constant and general, and which are the best known, we may cite the following: Check of perspiration, hereditary disposition, supposed to depend upon a scrofulous diathesis or taint of the system, transmitted by parents to their offspring; and which peculiarity of constitution is marked by certain external physical signs, which are indicated by fair hair, a fine clear skin, delicate complexion, upon which the rose and the lily are oftentimes exquisitely painted. Certain diseases, also, predispose to the developement of this complaint, as Syphilis, Cancer, Scrofula, Small pox, Measles, &c.; the inhalation of noxious vapors, unwholesome or confined air, arising from imperfect ventilation; the depressing passions, mental alienations, such as grief, anxiety, &c., may all be classed among the exciting causes or predisposing causes of consumption. Our manner of living and our habits very much predispose to this disease; in a state of what is termed civilization, we have very much departed from the simplicity of nature, by running into excesses and practice very injurious to health. Consumption is little known among our North American Indians, who lead simple lives, subsist on plain food, and take abundance of exercise. The common mineral and depletive practice is another fruitful source, by diminishing the stamina and vitality of the constitution. Excessive venery and onanism may be enumerated among the causes; and, indeed, whatever has a tendency to impair the respiratory or other organs, is a fruitful source of Phthisis Pulmonalis.

Diagnosis.—There is generally very little difficulty in forming a diagnosis in this disease; it sometimes, however, simulates others, for instance the asthma, chronic hepatitis, and chronic

catarrhal coughs, which may exist for years, and yet not prove fatal. By referring particularly to the symptoms of these and other complaints, the student will be enabled to form a correct discrimination. Bleeding at the lungs may always be regarded as very suspicious, and proof that tubercles exist. When no disposition to phthisis is present, the hemoptysis or bleeding of the lungs, will frequently pass off without terminating in this disease. The diagnostic symptoms in the early stage are as follows: the countenance is pale; the lips bluish; the hands and feet often cold; the temperature of the surface is variable; cough deep, and expectoration free from the beginning; slight soreness in the pharynx; much oppression, but little or no pain in the chest, cough, which is rarely excited by full inspiration, and always severest in the morning, attended with wheezing respiration, until the mucus collected during the night is expectorated. Catarrhal consumption often goes on to a fatal termination, without any breach of continuity or ulceration whatever; the pus expectorated being a mere secretion from the inflamed bronchial surface. When this variety of consumption is connected with prominent derangement of the liver and stomach, it forms what has been denominated, Dyspeptic phthisis. In this combination we have, in addition to the ordinary symptoms of phthisis, dyspeptic symptoms, such as furred tongue, foul breath, unnatural stools, capricious appetite, distended epigastrium. The most consumptions, in this and similar climates, are of the catarrhal, or bronchial kind.

Treatment.---If the pathology of phthisis consists, as we believe we have shown, in a diseased state of the blood, all the treatment heretofore laid down is wrong, or at least very inefficient. We prescribe for symptoms instead of the cause; if the elements of this disease circulate in the blood, the same as in scrofula, syphilis and other complaints, and are thrown by the efforts of the system to the lungs, and these develop tubercles; then, is it not obvious that we must prescribe alteratives, or such medicines as will eradicate its morbid condition? What other class of medicines will have any rational tendency to remove the disease, or which is better, prevent the formation of tuberculous matter in the lungs? Expectorants only aid in promoting the expectoration; they do not correct that morbid and pathological condition of the system on which the disease depends. They are mere palliatives. Tonics are useful only in sustaining the powers of the constitution against the inroads of the disease. To be successful we must in this as in all other diseases, alter the quality of the blood. The treatment of phthisis naturally suggests itself to our consideration, under the following indications of cure: 1st, to prevent the further deposition of tuberculous matter, by purifying the blood; 2d,

to guard the system against the injurious influence of tubercles during their progress, which is accomplished by attending to the different secretions, and by equalizing the temperature of the body; 3d, to subdue and moderate the inflammatory condition of the lungs, which is effected by the timely application of counter-irritants over the affected parts, on the principle of revulsion; 4th, to support the strength of the system by tonics. To fulfil these indications we must begin to equalize the circulation by daily warm wet sheet-pack, with cold cloths to the whole chest, as counter-irritation, six or seven double folded dipped into cold water and wrung out, and hot bricks to the feet, let the patient remain in these from 15 to 30 minutes, and every day lengthening the duration of the pack up to one or two hours; this pack must always be followed by the alkaline rub-sheet or hand-wash, and brisk friction to the skin, with silk or soft flannel. Also daily tepid or hot foot-bath, followed with friction, and the warm hip-bath may be used every other day, or every day as the strength of the patient will permit; these hip-baths must especially be used in dyspeptic phthisis, and the wet jacket or bandage must be worn over the chest, covered well with dry flannel; this jacket must be changed or frequently wetted, or at least three times a day, always substituting a dry flannel; this may at first be changed oftener if there is heat in the parts, the patient must never be packed sooner after meals than two hours or three hours, nor no bath must be taken sooner than two hours after meals. Having fulfilled this indication, the next indication is to cleanse and correct the tuberculous diathesis; here if the bowels are irregular, injections or aperients must be given, as the anti-dyspeptic pills, and if the patient is strong enough, you may for the first give an emetic of warm water and Tincture of Lobelia, and drink freely till it operates, then take the pills to regulate the bowels; and after cleansing the stomach, bowels and skin, repeat doing so. We must begin with our alteratives and tonics; here our Alterative Syrup [see Pharmacy,] must be used for sometime, in conjunction with this medicine, to promote strength and expectoration, equal parts of the ingredients of the Pulmonary Syrup, and Restorative Wine Bitters [see Pharmacy,] may be added together and a strong syrup made, by covering the ingredients with diluted alcohol, and macerating for one week in a warm place; then pour off the liquor and set aside, and add to the ingredients enough of pure soft boiling water to cover them well; and boil [adding boiling water if the ingredients are not well covered,] till the strength is all extracted, then strain and add the liquor to this decoction; then add a sufficient quantity of the best loaf-sugar, say one pound of sugar to every pint of syrup, and simmer till the sugar has dissolved. Dose, a tablespoonful two times a day, say in the

morning before breakfast, and in the afternoon at 3 or 4 o'clock, and the alterative syrup twice a day, say before dinner and at bed time or sooner; if the anti-dyspeptic pill is taken it must be taken at bed time, then the syrup can be taken an hour or so sooner. Whenever the cough is very troublesome, to allay irritation, give one or two of the cough pills, [see Pharmacy,] which are an excellent medicine in arresting the bleeding, as well as allaying the tickling cough. Where there is difficulty of expectoration, the tincture of lobelia may be given, or our expectorant tincture. Should hemorrhage of the lungs take place, let a little salt and water be given to check it immediately; after which the following syrup will be found beneficial: Liverwort, 1 ounce; Solomon's Seal, 2 ounces; Skunk Cabbage, 2 ounces; Blood-root, $\frac{1}{2}$ ounce; Bugleweed, or Water Hoarhound, 2 ounces; add to the above a suitable quantity of soft water, and boil it until the strength is extracted. Let it be reduced to two quarts, and then add two pounds of loaf-sugar; a wineglassful to be taken three or four times a day, fasting. This will be found very serviceable, particularly in hemorrhage, and the syrup may be used temporarily, until the bleeding ceases. Should there be pain in the bowels or a relax, give the Neutralizing Mixture, [see Pharmacy.] If this fails, take pulverized charcoal, 2 parts; Magnesia, 1 part; mix and give a small tablespoonful daily, it is an excellent remedy. Also, here the warm hip-bath must be used, and at the same time the warm foot-bath.

Diet.—In this complaint the diet should be such as to improve the condition of the blood; fresh milk, warm from the cow, may be taken freely, oysters, &c. Exercise in the good pure open air, should be taken as much as the patient can bear, or his strength allows; cleanliness, and the apartments must always be very well ventilated or aired. The inhalation of various remedies have proved very successful by Dr. Beache and others: the following powdered remedies, thrown upon burning coals, and the fumes or smoke thereof inhaled by the patient: the finely pulverized Lobelia, Blood-root, Bay-berry, &c. The best way is to place four or five separate parcels of the powder to be inhaled, apart; then place over one of them a tube, after having expired the air from the lungs, inhale the powder, and thus each one in succession. It generally produces little or no cough, and changes the expectoration. These agents thus act either as purifiers of the blood, or by sympathy.

SPITTING OF BLOOD. (HEMOPTYSIS).--I have already treated of this disease, very briefly, under the head of Phthisis,

being usually only a symptom of this complaint; but from its importance I think it necessary to make a few further remarks, under a separate chapter. Dr. Beache, remarks: The term Hemoptysis signifies a discharge of blood from the air passages, which occurs principally under three forms: 1, a general exhalation from the mucus surface of the bronchial tubes; 2, from apoplexy of the lungs; 3, from an erosion of a blood-vessel in a tubercular excavation in the lungs, and which falls to be considered with phthisis pulmonalis. The first variety is the most common, and is not generally attended with much danger. It frequently attacks women at the monthly periods, when the menstrual discharge is more scanty than usual, or is entirely suppressed; girls are often so affected at the age of puberty, immediately before the catamenia should appear; but the male sex are not exempt from it. Here the bowels are found to be out of order; the tongue foul; the patient has passed somewhat restless nights, with more or less fever, and feels most comfortable in the half-erect posture. At last there is a cough which is often constant and distressing, with more or less dyspnoea, or difficult breathing, particularly when moving about. The expectoration has a peculiar appearance, resembling red currant-jelly—sometimes not so much tinged; it is sometimes copious, but in general the quantity discharged is moderate. Occasionally the discharge is quite bloody, but moderate in quantity, and very frothy; but in some cases pure blood in large quantities is discharged, &c.

Treatment—As before said, a little salt and water given; this often checks the hemorrhage or bleeding. But means must be immediately taken to regulate the temperature of the body, and equalize the circulation; to fulfil this bathe the feet in hot water, followed by friction, and very cold cloths applied to the chest, with the compress, and repeated as soon as they become hot; also, a purgative of the Compound Powder of May-apple root, or an injection of salt and warm water, say 1 teaspoonful of salt to 1 pint of water. Also the wet sheet-pack warm, with cold cloths to the chest, and warm bricks or bottles to the feet, followed by the rub-sheet, &c., and other means to cause perspiration, as warm water or tea drank, with the alcoholic vapor-bath; but here the cold cloths must be applied to the chest and head if there is headache or dizziness, with hot foot-bath; and in the meantime try and find the cause and remove it. Also the vegetable sirup, and other means mentioned in phthisis must be made use of; if the disease proves obstinate, but this is seldom necessary if the local treatment is correct. Perfect rest, silence, abstinence from every stimulating drink or diet, should be attended to. To prevent a return of the bleeding, invigorate the lungs and purify the blood, so as to correct the

tuberculous diathesis, which generally exists in hemoptysis. The above treatment will fulfil these indications.

ASTHMA.—This disease termed “ASTHMA,” is located in the upper portion of the respiratory organs termed “BRONCHIA,” the mucus membrane of which appears to be the principal seat of irritation and congestion. It is characterized by a cough, all of which symptoms are aggravated when in a recumbent position; also frequent, difficult and short respiration, wheezing and stricture of the chest. It most generally attacks those of a full or plethoric habit. When there is a great discharge of mucus from the lungs, it is termed humid; but when attended by little or no expectoration, it is called the dry or spasmodic asthma. It more generally attacks men than women.

Symptoms.—An attack of asthma often occurs at night, and the patient is perhaps awakened out of his sleep by it, with a sense of suffocation. Upon the approach of a paroxysm, the patient usually feels a sense of coldness over the surface of the body; indeed, sometimes severe rigors take place, and a sense of constriction is experienced in the chest and difficulty of breathing, both of which are increased in the recumbent posture. He sits up because he can breath more easily; he demands more air to be admitted into the apartment; there is restlessness, occasional cough, which the patient makes efforts to perform, thinking to force something out of the lungs which impedes his breathing. Expiration is performed with a peculiar whistling sound, and sometimes sonorous. The pulse is in various states, full and quick, small and quick, sometimes oppressed, and occasionally it intermits; the skin is frequently discolored; and there are often a troublesome flatulency and a sense of fullness in the abdomen. The expectoration is sometimes scanty, at others copious. In slight cases, however, a sense of constriction in the chest is only complained of, which is sometimes relieved by expectoration of a whitish mucus; but in more severe instances, the symptoms are much more violent and alarming, not only to the patient, but to the bystanders; instant suffocation being threatened, he solicits relief in the most urgent manner. An individual may have an attack for three or four successive nights, and not be again affected for months; women are more generally attacked immediately preceding the catamenia, the duration of each paroxysm is very various, from two or three days to three or four hours.

Causes.—Asthma may arise from an interrupted balance of

the circulation, determining the blood surcharged with carbon and other deleterious agents to the bronchial vessels and lungs, thus perverting their functions, &c.

Diagnosis.—The following is the diagnosis between true Asthma and Angina Pectoris: in Angina, dyspnoea is always present; in Asthma it is not. In angina, fear of impending death is a constant symptom; in asthma, it is not present.

Treatment.—On an attack of this disease, or even during the paroxysm, the exhibition of a Lobelia emetic, or our common Emetic powder, always produces the most decided effect. Also, when the fit is on, the warm foot-bath must be used, with very cold cloths, or the fomentations hot to the chest, and also applying, the warm hip-bath at the same time, followed by friction. The wet jacket or bandage must be worn daily, and the wet sheet-pack, and douche or shower-bath, must daily be used, with hip and foot-baths; or instead of the wet sheet-pack, the alcoholic vapor-bath may be used, with the above means. Also injections, or our compound of may-apple root may be given, or which is rather better our Anti-dyspeptic Pill, to regulate the bowels. An emetic must occasionally be repeated, either with warm water or Tincture of Lobelia. Whenever the cough is very troublesome, whether at night or through the day, two or three of the Cough Pills [see Pharmacy,] will prove valuable. The following syrup will also be found very valuable for asthmatic cough: Take Elecampane root, 1 ounce; Comfrey root, 1 ounce; Spikenard root, 1 ounce; Hoarhound, the herb, 1 ounce; Wild-cherry-tree bark, $\frac{1}{2}$ ounce; Simmer in 3 pints of water down to 1 pint, and strain; add 1 pound of brown sugar, strain again, and add half a pint of old Jamaica rum. Take half a wineglassful, morning, noon, and particularly at night, on retiring to rest. This has proved very beneficial in a great many cases.

Diet.—Asthmatics should fast as much as possible, and their food should be very simple, light and nutritious. The patient should lay on a hard straw mattress, with the shoulders and head considerably elevated. Also, good cool air and exercise must be repeated.

HOOPING-COUGH. (PERTUSSIS.)—There are three kinds of cough which are ranked as idiopathic diseases by authors: Common cough, dry-cough, and hooping-cough. They are all attended with a sonorous and violent expulsion of air from the lungs, from a spasmodic or convulsive action of the respiratory muscles; the first and second varieties are often symptomatic

of a multiplicity of other diseases. We here take in consideration the hooping-cough. Character: A contagious cough, paroxysmal, convulsive and suffocative; inspiration during the cough—shrill; the cough frequently terminating in vomiting. Hooping Cough may be divided into three stages:

1. *The Forming Stage*: Characterized by the usual symptoms of ordinary catarrh, lassitude, weakness and headache; sneezing, slight hoarseness, discharge of thin mucus from the nose, restless sleep, inappetency, and generally slight febrile symptoms; the cough is shrill, dry, and comes on in sudden, but short paroxysms, without hooping. This stage generally lasts from two to three weeks.

2. *The Convulsive Stage*: Characterized by violent paroxysms of convulsive suffocative cough, the inspiration being difficult and stridulous, and attended with a sense of obstruction or spasmodic stricture of the glottis. These paroxysms return at first five or six times daily, and gradually increase in frequency, so as at last to return almost hourly. The approach of a fit of coughing is always announced by a sense of stricture in the breast, and titillation in the larynx or præcordia or front of the chest. The paroxysm lasts from a half to four or five minutes, and terminates by vomiting, or the discharge of a large quantity of viscid mucus from the bronchia; pain is felt in the breast, immediately after the cough. The duration of this stage is various, in general it lasts from four to six weeks.

3. *The Stage of Declension*: This stage begins when the spasmodic and suffocative character of the cough begins to abate. The declension of the disease is always very gradual; its duration is as various as that of the other stages, commonly from two to four weeks. Hooping cough sometimes becomes complicated with other diseases, as pneumonia, bronchitis, &c.

Treatment.—This disease assimilates in its pathological character, to croup, laryngitis, &c., and therefore the treatment in some respects must be the same or similar. Our object should be to remove the vascular state of the mucus membrane and allay the unnatural excitement and irritation. The accumulation of viscid mucus which so constantly collects in the air-tubes, obstructs respiration, and brings on the prolonged paroxysms of coughing, clearly indicates the interference of art in promoting expectoration. This may be accomplished by the following Expectorant or emetic: Take equal parts of Lobelia and Blood-root in powder or tincture; this must be given upon every severe attack, till vomiting is produced. Also, a warm water emetic is very good. The chest wrapper or wet jacket must daily be worn; and warm foot-bath, warm wet sheet-pack or the acoholic vapor-bath, followed by the alkaline rub-sheet

or hand-wash, with brisk friction, cold water drinking, and attention to the bowels by injections or the anti-dyspeptic pill. Also the warm hip-bath must daily be used, &c.

Diet.—Plain and abstemious, with moderate exercise in the fresh air. The Black Cohosh or Squaw-root is very highly recommended by Dr. Cooke and others; they think it superior to any other remedy in this disease. The tincture is principally used; dose for a child one year of age from fifteen to twenty drops, four or five times a day; for one that is three or four years old, from half to a teaspoonful, in a little sweetened water. We prepare the tincture by adding a pint of spirits to two ounces of the pulverized root, and macerate for ten days in a warm place. It may also be used in decoction or tea. I regard it as a superior remedy in different diseases.

PULMONARY APOPLEXY.—*Hepaticization of the Lungs.*
As pulmonary engorgement or consumption, and pulmonary apoplexy are so similar in their character and treatment, it is rather unnecessary to treat separately upon these subjects. The treatment consists in the use of the remedies prescribed for pneumonia, only in milder forms and measures. Purgatives will be found very useful in averting hemorrhage from the lungs; the circulation must be equalized by appropriate means, &c., as in hemoptysis or consumption.

CARDIAC DISEASE, OR, DISEASES OF THE HEART.

The heart, like other organs, is subject to disease, as well as its investing membrane, the pericardium. Under this head we include organic as well as symptomatic affections. We have simple palpitation, symptomatic of gastric derangement, which is well calculated to deceive the student and lead him to suppose that the primary affection exists in the heart; also hypertrophy, ossification, tubercles, valvular disease, atrophy and rupture of the heart.

PALPITATION OF THE HEART. (PALPITATIO.)—A twitching vibrative motion may be limited to the heart alone,

or the trunks of some of the larger arteries alone; or affect their ramifications or branches in the viscera, constituting palpitation of the heart, of the arteries, and complicated or visceral palpitation.

Symptoms.—Palpitation of the heart is a vibratory and irregular action, sometimes sharp, and then called throbbing of the heart, and sometimes soft and feeble, when it is termed fluttering of the heart. In very nervous and irritable persons the palpitation often shoots from one artery to another, and sometimes a preternatural pulsation passes through every part of the body, the morbid sensibility being so acute that the patient not only feels the universal throbbing, but actually hears it.

Special Causes.—Palpitation is always symptomatic of some organic or functional difficulty, commonly the latter. All visceral obstructions, and every form of indigestion, are liable to be attended with this symptom. The use of Tobacco, Coffee, Green tea, or ardent spirits very frequently produces the worst and most obstinate attacks.

Diagnosis.—It is often extremely difficult to distinguish between functional and structural cases of palpitation; functional palpitations are intermittent, while organic or structural affections are continuous.

Treatment.—When this disease arises from plethora, or full blooded, cleanse the alimentary canal, by first giving a warm water or lobelia emetic, followed by injection or purgatives, as our compound of may-apple-root. When it arises from gastric disturbance, inducing great debility or weakness, a tonic course of treatment must be used, as daily rub-sheet, foot and sometimes hip-bath are necessary; if the case prove obstinate, daily wet sheet-pack, chest wrapper or jacket, and the Restorative Wine Bitters. During an attack of palpitation, Sedatives will be found very valuable, as warm hip-bath, with hot foot-bath and cold cloths over the cardiac or præcordia region.

ANGINA PECTORIS.—An acute constrictory pain at the lower end of the sternum or breast-bone, inclining rather to the left side, and extending up into the left arm, accompanied with great anxiety, violent palpitations of the heart, laborious breathing, and a sense of suffocation, are the characteristic symptoms of this disease. It is found to attack men more frequently than women, particularly those who have short neck, are

inclined to corpulency or fatness, and at the same time lead inactive and sedentary lives. *Agina pectoris* is attended with (if not treated actively in the acute attack,) a considerable degree of danger, and it usually happens that the person is carried off suddenly.

Causes.—Corpulent, gouty, rheumatic, and debilitated persons are especially the subjects of its attacks; hence the usual causes of obstruction and nervous exhaustion may be regarded as its predisposing influences; and, indeed, it is always symptomatic of some general morbid condition.

Treatment.—The paroxysm can be relieved by a warm water or lobelia emetic, with hot foot-bath, a rub-sheet, hip-bath or the pouring head-bath, and cold cloths to the chest. Also, cleanse the bowels as speedily as possible by giving injections or the compound of may-apple root, with the addition of Cayenne pepper, as much as will be retained on a five cent piece to every dose, till free catharsis or physicing is produced. The diet should be light and easy of digestion. If there is debility repeat the wet sheet-pack, &c., daily, with the Restorative Wine Bitters, and the anti-dyspeptic pill to regulate the bowels.

DILATATION & ENLARGEMENT OF THE HEART.
(HYPERTROPHY.)—By hypertrophy of the heart is understood a thickening or increase in the muscular substance of one or more of its cavities. Hypertrophy frequently exists without complication. In this class of diseases, as well as in most others, we are constantly to bear in mind, that when one organ labors under disease, others in a short time give evidence of participation.

Symptoms.—The pulse is commonly soft, weak and undulating. Weak action of the heart, whether owing to dilatation or not, frequently produces alarming symptoms, such as vertigo, loss of memory, syncope, together with nausea, vomiting and constipation.

Treatment.—During the paroxysm of this disease, the same medicine may be given as is mentioned under *Agina Pectoris*, to remove present symptoms, indigestible and irritating articles of food, &c. Diet and regimen the same as in *angina pectoris*. In all such cases means must be used to equalize the circulation, the following are good means—foot-bath and sweating. This sweating may easily be caused by giving *Sudorific Tincture* or *Sweating drops*, prepared in the following manner: Take

Ipecac, Cephælis Ipecacuanha, 2 ounces; Saffron, Crocus Officinalis, 2 ounces; Camphor, Laurus Camphora, 2 ounces; Virginia Snake-root, Aristolochia Sepentaria, 2 ounces; Ladies' Slipper, Cypripedium Pubescens, 4 ounces; Holland Gin or Jamaica Spirits, 3 quarts—let it stand for ten days, and filter. *Dose*—One teaspoonful, given in a tumbler of warm catnep-tea, every hour or two till it produces perspiration or sweating. One or two doses, aided by warm infusions and bathing the feet will cause a copious sweating, and at the same time it equalizes the circulation, and relieves pain. This medicine may be used while taking the alcoholic vapor-bath as above said.

HEPATIC DISEASES, OR, LIVER COMPLAINT.

This class of diseases is characterized by two forms or stages; acute and chronic: the former has already been described under the head of Inflammatory Diseases. (See Acute Hepatitis.) We now take the latter in view.

CHRONIC HEPATITIS, or LIVER COMPLAINT.—*Symptoms.*—This is a very common disease in all climates. Chronic Hepatitis is a state of passive or chronic inflammation of the organ. In addition to a variety of dyspeptic symptoms, there is sense of weight, fullness or other pain in the region of the liver, which is increased by deep pressure; sometimes the pain is referred to the left side; at other times to the right shoulder, or between the shoulder-blades; there is frequently darting, irregular and fugative pains along the breast-bone and through the chest; some degree of enlargement or hardness is usually obvious to the touch under the short ribs of the right side; the countenance is sallow; the bowels are costive; the stools are clay-colored; the patient is torpid, inactive, and hopeless, and there are occasional attacks of jaundice. It is also generally attended with a dry, husky cough, and a slight hawking or spitting of a thick, tenacious mucus or slime, especially in the morning, when the sputa or spit appears dark and carbonaceous, as though charcoal dust had been scattered through it. This cough and expectoration or spit may be distinguished from that which has its seat in the lungs or their appendages, by the slow-pulse, and the prominent hepatic or dyspeptic symptoms.

Treatment.—Judicious treatment consists in removing that congested state of the liver on which the dyspeptic symptoms

depend. In long-standing and obstinate cases an emetic may occasionally be given, followed by an active cathartic or purgative; here to fulfil both indications of vomiting and physic, give the Podophylline or the resinoid extract of may-apple root in doses of two to six grains. This must be repeated every week or two, and in the mean time give this medicine daily in small doses, say $\frac{1}{4}$ to $\frac{1}{2}$ a grain at bed time; this will regulate the bowels, and keep the liver in full action. Also, a Pill may be given to the extent of vomiting and purging. *Anti-Bilious Pill*:—Take Aloes, pulv. Aloc Socotorina, 2 ounces; Gamboge, and Extract of Boneset, of each 1 ounce; Castile Soap, $\frac{3}{4}$ ounce; May-apple root, pulv., Podophyllum Pulv., 2 ounces; Lobelia seed, pulv., and Extract of Gentian, of each $\frac{1}{2}$ ounce; Cayenne peper, Capsicum Anunn, $\frac{1}{4}$ ounce; Oil of Cloves, one drachm. Warm the extracts until they are quite soft, and add the dry articles in fine powder; mix the mass thoroughly in a mortar, and add the oil, working till it well mixes; make into 5 grains or a common size pill. *Dose*.—As an active physic 4 to 6 pills, in this case three may be taken at bed time and the other two or three in the morning when you rise. As an Emeto-Cathartic, or as an emetic and purgative, 5 to 7 pills taken at one time; this will then make the patient vomit, and physic him after vomiting, or sometimes both at once. As an aperient or to regulate the bowels 1 to 3 pills. A most excellent pill this is. (The Podophylline, or resinoid extract of may-apple root may be used instead of the powdered root, the quantity being less, only $\frac{1}{2}$ ounce). Also, this disease must be treated similarly to dyspepsia, daily wet sheet-paek, rub-sheet, hip-bath, foot-bath, wet-jacket or bandage changed at every bath, and a milk or vegetable diet, with exercise in the good air; and also tonics may be given as our Restorative Wine Bitters, with great attention to the bowels, by injections or the above said medicine; if the above medicine is not used, a warm or cold water emetic must be administered occasionally. Also drinking a good deal more cold water than the thirst demands, (see Introduction on water drinking); hip-bath are of particular importance in this disease, taken either tepid or cold, followed by friction.

JAUNDICE.—This disease is characterized by a yellow color of the eyes, skin and urine; and by the white or clay-colored appearance of the evacuations from the bowels. Jaundice, in a general sense, is known by debility, languor, inactivity, heat and pricking of the skin, bitter, nauseous, or acid taste in the mouth, yellowness of the conjunctive of the eye, and subse-

quently of the whole surface of the body; the bowels are irregular, the urine high-colored and yellowish, the pulse is usually slow and weak, the mind is downcast and gloomy, or listless, wandering, and irritable, and there is feverish heat and dryness of the skin. When the disease is protracted, the skin turns greenish, brown, livid or leaden, blotches appear in different parts, and the discharges from the bowels are dark, pitchy and bloody. The special or immediate cause of jaundice is torpor or inactivity of the liver, by which the viscid particles which should be secreted in the liver, and passed off in the form of bile, are left in the blood. The existence of gall-stones is known by the acute and sometimes excruciating pain they occasion when passing through the common bile-duct from the liver into the duodenum or bowel; this pain is felt in the epigastrium or region of the liver; extending to the right side and back, and occurs in severe paroxysms, with intervals of comparative ease. The pain suddenly remits when the calculus or gall-stones reaches the bowel.

Causes.—The circumstances which impede the passage of the bile into the bowels, and consequently produce jaundice, are various. The obstruction may arise from gall-stones in the biliary ducts or tubes leading from the liver to the bowels; from the bile being unnaturally thickened; from inflammation of the liver; and an inactive liver; intense grief; terror or a violent fit of rage; jealousy or disappointed ambition, &c.

Treatment.—All that has been said in relation to the treatment of dyspepsia, applies with equal force here. An emetic in the first place to relax the biliary tubes; here nothing is better than a dose of Podophylline or resinoid extract of may-apple root, in doses large enough to cause vomiting and physic-ing; say the dose, from 4 to 6 grains. This emeto-cathartic must be repeated once a week if the patient is strong enough. In between times small doses must be given to regulate the bowels, and keep the liver in full action. Also the other means must be made use of as the warm hip-bath, foot-bath, rub-sheet, wet sheet-pack, and jacket or bandage must be worn. If gall-stones are present, hot fomentations; warm hip-bath, with copious of warm water drinking, will facilitate their passage, and relieve the pain. In the commencement of this disease like in all others, the baths must first be used warm, and then reducing the temperature still more and more as the patient's strength can bear it, till cold. Also, the alcoholic vapor-bath is of much value here in cases of phethoro or full-blooded habits. The Anti-Bilious Pill may also be used as an emeto-cathartic, or, Beache's Emetic Powder; and afterwards followed by the compound physic of may-apple root. Tonics must be given if the patient suffers from nervous debility or weakness; here the

restorative wine bitters must be given daily. Particular attention must be paid to the bowels, by the above, or injections.

Diet.—Abstain from all greasy meat or diet; also from sweet articles, pastry, rancid butter, coffee, tobacco, opium, &c. A vegetable diet, and of easy digestion is the best. Exercise in the pure air, &c.

GASTRIC DISEASES.

This class includes such diseases as are more especially, or apparently located in the stomach, or have their origin there; affecting either the coats of this organ or its appendages. Disease of the stomach may be either functional or organic, acute or chronic: most of this class are of the chronic form. Affections of this kind are once seated, it requires a long time to remove them; and a great majority of all depend upon abuse in eating or drinking, either in the quality or the quantity of food and drink.

CHOLERA MORBUS.—This is a disease of the stomach and alimentary canal, characterized by vomiting and purging, with severe griping, pain, cramps in the stomach, abdomen and extremities. Cholera Morbus presents itself to us under two forms: First, that which occurs so frequently in warm seasons, designated by this name, which literally signifies morbid or diseased bile,—and, second, that form which has so long prevailed in the East, and has lately visited Europe and this country, called the Malignant, or Asiatic Cholera, and which prevails principally in the Autumn season, and particularly when the summers are hot, and fruit and vegetables are abundant and cheap.

Symptoms.—The cholera-morbus generally comes on very suddenly. It usually commences with nausea and pain in the stomach, followed by severe griping and distress in the abdomen. These symptoms are immediately succeeded by paroxysms of vomiting and purging, continuing until great prostration follows. In the intervals between the periods of vomiting, there is great sickness and distress at the stomach. The stools are at first thin and watery, and generally tinged with bile. There is coldness in the extremities, the countenance is pale and expressive of great distress, and cold sweats break out, and great prostration follows.

Causes.—First, as to the remote cause: Whatever has a

tendency to derange the stomach and liver, is an exciting cause of cholera-morbus, by checking perspiration, and throwing recrementions or foul matter into the bowels, tend strongly to bring on cholera. In warm climates, malaria possesses considerable influence as an exciting cause of the disease.

Treatment.—Bilious Cholera, or Cholera Morbus, in its early stage requires copious warm water injections, and free warm water-drinking, to cleanse the whole alimentary canal as promptly as possible. Also another very excellent remedy is the Neutralizing Mixture, made as follows: Take Turkey or common Rhubarb, pulverized half a drachm; Sal-Æratus or Bicarbonate of Potash, half a drachm; Peppermint Plant, half a drachm; grind together in a mortar, and put the powder into a teacup; add sufficient loaf-sugar to sweeten, then half a pint of boiling water; when nearly cold, add two tablespoonful of brandy. Of this mixture give two or three tablespoonfuls every half hour, or as often as the paroxysms or period of vomiting and purging take place. Also warm hip-bath, and hot foot-bath, and in severe cases the alcoholic-vapor-bath, followed by the alkaline, rub-sheet or hand-bath. Also the warm wet-sheet-pack, with hot bricks to the feet. These means must be repeated several times till the acute symptoms are arrested. Also the sudorific tincture, or sweat drops, (see Pharmacy) may be made use of to bring the patient into a sweat. Aided by warm water or tea.

Diet.—Oat meal gruel, or Indian meal gruel (mush), &c. Also a very good external application is as follows. Take Cayenne pepper, 1 teaspoonful; Spirits, 1 pint, simmer a few minutes, then dip flannels in it, and apply them warm to the stomach, abdomen or bowels, and extremities particularly if there are cramps. Injections are very good if the bowels are much affected, and always keep hot applications to the feet. This treatment never fails if promptly made use of.

EPIDEMIC CHOLERA.—*Symptoms.* *Premonitory or first Stage.*—The progress of the disease is generally as follows: The patient feels, for several hours—or for a longer or shorter period, according to circumstances—a sense of general uneasiness and anxiety about the epigastrium, with a feeling of heat in the same situation. These symptoms increase more or less rapidly; and the countenance which at first is merely expressive of uneasiness, soon becomes more and more anxious and distressed. The pulse at this time, is generally quickened, and

always oppressed. This state of the system forms the first stage of the disease—a stage which from its importance in the treatment of the disease, I have called the stage of invasion, and considered more at large in the next section. Accompanying these symptoms sometime, but always supervening to them, the patient complains of sickness at his stomach, and an uneasy sensation which seems to invade the whole track of the digestive tube. Spasms, evacuations of the alimentary canal, deafness, giddiness, noise in the ears, coldness of the extremities and surface of the body, are also present.

Second or Confirmed Stage.—The symptoms usually looked for as marking the advanced stage of this disease, are vomiting and purging of a thin watery fluid, similar to rice-water, with white flocculent matter floating in it. Cramps supervene in the legs, arms, and muscles of the abdomen and in many cases become even more general. The eyes are sunk, and the features sharp and collapsed: the skin is generally cold, and covered with a cold clammy dew; there is scarcely any pulse at the wrist, and, if it be at all perceptible, it is small and thready, and generally quick; but it sometimes gives the sensation to the finger of oppression. The extremities are cold, livid, and shrunk.

Causes.—The remote causes of Cholera appear to be many; such as residence in low wet places by the side of streams of water; excessive fatigue or over-exertion; improper diet; and whatever impoverishes the blood; derangement of the stomach; intemperance in eating and drinking; the use of unripe and other fruit, of acid liquids, and especially of all kinds of vegetables, and such articles as run quickly into fermentation developing an acid. (BEACHE.)

Treatment.—In the incipient or premonitory stage: As soon as there is any uneasiness in the bowels, or diarrhœa, we must give medicine to correct the acrid secretion of the liver and stomach. None medicine is better, saith Dr. Beache, than the Neutralizing Mixture, used the same as in Cholera-Morbus, but it must be made stronger and taken oftener, in this disease. A similar course of treatment must be pursued in this as in Cholera-Morbus. Remedies of promoting sweat are of considerable importance, such as the alcoholic-vapor-bath, and the hot (as hot as will almost scald the patient) wet-sheet-pack or rather the patient must be enveloped in sheets, one after the other, with hot, very hot bricks to the feet. These sheets may be wrung out of the following decoction; take Cayenne Pepper, 1 ounce; Lobelia herb, 4 ounces; Hops, 4 ounces; boil a while and strain through a cloth, keeping it hot for the above purpose. In the third or collapsed stage: should we be called

to prescribe in this dangerous stage, our object must be to create reaction by producing a determination of fluids to the surface. Here the above may be used, and a tea-spoonful of powdered black pepper may be given in a tumblerful of hot gin-sling; the same may be simmered and applied to the bowels and extremities. Add two large tea-spoonsful of either the red or black pepper, to one quart of boiling water; let it stand until cool; then strain and inject the whole up the bowels. This has aroused a patient in the collapsed stage, when there were little or no hopes of recovery.

CHOLERA OF INFANTS, *Summer or Bowel Complaints.*
(*CHOLERA INFANTUM.*) *Symptoms.*—This complaint is usually characterized by fever, and commences in a gradual manner with more or less diarrhoea; after a short time it is attended with nausea, retching, and vomiting. If the disease progresses a short time, the child begins rapidly to waste. There is coldness in the extremities, but a preternatural degree of heat in the head and bowels; the skin is shrivelled and dry; the face is very pale; the eyes are dull and sunk; the pulse is weak, irregular, and frequent; there is lethargy, and the child sleeps with its eyes but partially closed; there is considerable tossing of the head when awake; and, if no relief is afforded, the patient rapidly sinks into a state of great prostration and insensibility, which proves fatal. In this disease, the stools are sometimes green and watery; sometimes yellow and watery; at others brown and frothy, or white and frothy, as if mixed with yeast, &c.

Treatment.—The same preparation which is used in Cholera-Morbus, Neutralizing Mixture or Cordial, (see Pharmacy.) One or two teaspoonfuls may be given to a child a year old, and repeated every hour or half. This medicine acts mildly, but effectually, upon the stomach and whole alimentary canal, neutralizing acidity, while it evacuates the fetid and morbid accumulation, brings on a healthy action, &c. Injections are exceedingly valuable; they have a soothing and emollient effect upon the intestines, allaying pain and inflammation in a very remarkable manner. When there is swelling of the abdomen, bitter herb fomentation must be applied, viz: Take hops, worm-wood, tansy, catnep, a handful of each: simmer or boil a short time in equal parts of vinegar and water. Enclose in flannel, and apply it warm to the bowels, to be occasionally repeated. Particular attention must be paid to the state of the skin, by warm wet sheet-pack, hip-bath, foot-bath, rub-sheet,

and the belly bandage or jacket; these means must be repeated according to the heat of the skin, and temperature of the body in general. In order to promote gentle sweating or keep up a moisture of the skin, as well as to allay irritation or pain, the Diaphoretic Powders must be given, made as follows:—Take Ladies Slipper, *Cypripedium Pubescens*, 2 drachms; Camphor, 2 drachms; Ipecac, *Cephalus Ipecacuahna*, 1 drachm; Cream of Tartar, *Potassae Bitartras*, 1 ounce; Pulverize each separately, and mix them. *Dose*.—For an adult ten grains, for a child of two years old, 1 to 2 grains, and in proportion to their age. This is an excellent remedy in a great many diseases. In the chronic form the same treatment must be persevered in. With the addition of Blackberry-Syrup, (see Pharmacy).

Diet.—Arrow-root tea or jelly may be given, and mucilaginous drinks, chicken-soup, panado, gruel or mush, &c. But the best diet for children afflicted with bowel complaints is thickened milk, to which a little Cinnamon has been added. The child must, if possible, be removed to a pure atmosphere, be kept clean, and its clothes often changed.

SICK STOMACH, or *Milk Sickness*. (CHOLERA AMERICANA).—This is a disease in which morbid bile preponderates, and is characterized by heat, sickness and burning at the stomach, with retching and vomiting.

Symptoms.—It generally commences with a weak and trembling sensation of the limbs, and loss of appetite. If there is much nausea, there is great thirst; if there is no nausea, there is no great thirst. These symptoms are followed by severe vomiting of a bilious character. The substance thrown from the stomach has a bluish or indigo tinge, and a peculiar acid smell; the efflux from the body have the same sour smell. The physician after once seeing a case, will never mistake it, owing to this peculiarity. Respiration is slow and often laborious. The patient lies on his back with his eyes half closed. Obstinate and constant constipation or costiveness is invariably present; which may be regarded as a diagnostic symptom.

Prognosis.—Always to be regarded as dangerous; as a general rule, the more easily the bowels are acted upon, the more tractable will be the disease.

Treatment.—Emetics are of primary importance in the treatment of this disease. Lobelia and Ipecac equal parts are to be preferred to any other, or warm water may be used as an

emetic. Purgatives are the next, our common purgatives are of little avail; more stimulating ones must be used, as a favorite prescription is as follows: Take Croton Oil, 20 drops; Gamboge, 40 grains; Rhubarb, 80 grains; mix and form into a mass with mucilage, and divide into forty pills. *Dose*—One to ten, given every one or two, three or four hours; or sometimes you commence with one pill every hour until three doses are taken, and then double the dose, give two hours apart; if these do not operate in six or eight hours, you still increase the dose. Stimulating injections must be used to assist the operation of purgatives; say the following: Take red or Cayenne pepper, 1 teaspoonful; Lobelia, 2 teaspoonfuls; 1 pint of boiling water, after standing a sufficient length of time to extract the strength, sweeten with molasses, and add half a pint of milk, and a gill of sweet oil; inject as much of this as the patient can bear. Once the bowels are moved the Neutralizing Mixture, or Physic answers a good purpose to regulate the bowels, or the common Anti-Dyspeptic Pill answers well. The following will greatly assist the operation of the bowels, drop 5 to 10 drops of Croton Oil upon the umbilicus or region of the navel, and rub it in. Also the other means, as the alcoholic-vapor-bath, wet-sheet-pack, hip-bath, foot-bath, &c. If you can get the patient into a copious sweating it will considerably assist the operation of the bowels, and also remove that obstruction of the bowels.

Diet.—During the violence of the disease, soups and mush, in small quantities; but as convalescence advances, a more nourishing diet should be allowed. Careful at any time not to overload the stomach.

VOMITING. (EMESIS).—It sometimes happens that persons are taken with a fit of vomiting without any apparent cause, and when it does not proceed from any other complaint; or, in other words is a symptomatic disease. The stomach from various causes, becomes irritable, and everything taken into it is ejected; when this is the case, and it does not proceed from some apparent disease, attention must be directed exclusively to the characteristic symptom.

Treatment.—Here the Neutralizing Mixture may be given with great advantage; in this case we must give tone and energy to the stomach, by taking nourishing diet, and of easy digestion, and daily foot-bath, and hip-bath, also the wet bandage must be worn, with a good deal of cold water drink. (See Introduction on drinking-water.) Also injections must be made use of if the bowels are irregular, &c.

VOMITING OF BLOOD. (HÆMATEMESIS.)—By this disease we understand a discharge of blood by the mouth, generally in a considerable quantity, attended with retching or vomiting, and without its being characterized by those symptoms attendant on hæmoptysis.

Symptoms.—A vomiting of blood is readily to be distinguished from a discharge from the lungs, by its being usually preceded by a sense of weight, pain, or anxiety in the region of the stomach, unaccompanied with coughing, the blood being discharged in a very considerable quantity, and of a dark color; and, lastly, by its being mixed with the other contents of the stomach.

Causes.—This disease may arise from wounds, blows, bruises, or anything which causes too great a flow of blood to this organ; from a suppression of the menses, or the bleeding piles; or it may be symptomatic of some other diseases. It more generally, however, arises from debility, a relaxation of certain blood-vessels, &c.

Treatment.—If the disease arises from a suppression of the menses, let means be taken to restore them by appropriate remedies. It will be necessary, in all cases to divert the blood from the seat of the complaint to its original channels. The feet must be bathed in hot water, and perspiration promoted or restored. To sweat the patient you may give the alcoholic-vapor-bath, with the sudorific drops or sweating drops. Also the wet sheet-pack, with hot bricks to the feet, and cold cloths to the chest or stomach. Injections or purgatives must be administered; our common compound of May-apple-root may be given once a week. After the hemorrhage or bleeding is stopped, strengthening medicine must be given, for which the Restorative Wine Bitters are very valuable. The Anti-Dyspeptic Pill should be given to regulate the bowels. The patient should exercise moderately, and never fatigue or strain himself in any way. His diet should be light but nutritious.

CRAMP IN THE STOMACH.—This is a violent and painful disease, generally very sudden in its attack, and extremely dangerous. Weakly and nervous constitutions are the most liable to it. It may arise from acrid matter, or from a check of perspiration.

Treatment.—Friction should be immediately employed over the region of the stomach, and continued until an unnatural degree of heat is produced and the pain subsides. Also warm

foot-bath, and hot bricks to the feet, and a hot brick as hot as can be borne, covered with flannel or muslin, and wet with vinegar, this must be applied to the stomach, and an emetic of either warm water, or tincture of lobelia aided by warm tea or water; this will bring the patient into a sweat, and thus he will be relieved, the application of bricks to the feet and stomach must be repeated if they get cool. An excellent remedy for cramp in the breast is the essential Oil of Hemlock, ten drops taken in a little sweetened tea. The patient after being relieved and has sweated more or less must have a rub-sheet or hand-wash.

HEARTBURN. (CARDIALGIA.)—This disease consists in an uneasy sensation about the pit of the stomach. Those whose stomachs abound with acid, or with bilious disorders, are the persons most subject to heartburn.

Causes.—Are various, as wind, acid, debility of the stomach; from worms; fat meat; apple-butter; and plethora or spasms.

Treatment.—A mild emetic, of warm water or Beache's Emetic Powder, followed by injections or physic, as the Neutralizing physic is the best of all physics in this disease. Also, tone must be given to the stomach, by making use of daily rub-sheet, hip-bath, foot-bath, and the belly bandage or jacket, &c.

Diet.—Must be vegetables, and of no flatulent kind.

CANKER; or THRUSH; or, SORE MOUTH. (APHTHÆ.)
Symptoms.—This complaint shows itself at first by an uneasy sensation or burning heat in the stomach, which comes on by slow degrees, and increases gradually in violence. After some time small pimples show themselves on the tip and edges of the mouth, occasioning such a rawness and tenderness that the patient cannot take any food of a solid nature, nor receive any vinous or spirituous liquors into the mouth without pain. It is accompanied with a dry skin, pale countenance, small pulse, and cold extremities. It most frequently attacks infants, and old people of delicate health. It is characterized by vomiting, fetid eructations, pain, diarrhœa, and some degree of tenderness of the belly on pressure. The stools are green and slimy, or tinged with blood; and frequently they are ejected with

great force. As soon as any food is taken into the stomach, the child has a motion, giving an appearance as if it passed immediately through the bowels. As the disease advances the tongue becomes red, the mouth is covered with aphthæ, and the verge of the anus appears inflamed; the brain also becomes affected.

Causes.—Hot drinks; the excessive use of tea and coffee; highly-seasoned food; confined air; repelled eruptions; too concentrated food; rancid grease of any kind; pork gravies; retained animal putrefaction from inattention to bathing the skin, &c.

Treatment.—The Abdominal bandage or jacket; the wet-sheet-pack, two to four times a week; cool injections daily when diarrhœa attends, moderate drinking of cool, but not very cold water, a daily half-bath, or hip-bath; dripping-sheet; foot-bath; &c.

Diet.—Simple strictly vegetable diet, save the article of milk; with a strict avoidance of all the producing causes. The following remedy is a very excellent one in canker. Take Golden Seal, quarter of a pound; add a quart of water, boil out the strength; strain it; then add quarter of a pound of loaf-sugar; simmer to three gills. *Dose.*—For an adult, half a wineglassful two or three times a day, keep the mouth and stomach moist with it. Dr. Beache, remarks: during the revolutionary war, the following gargle cured all cases of canker and putrid sore throat, very prevalent at that time, and had previously carried off many persons: take white oak bark, white elm bark (not slippery elm), high blackberry-root bark; bark of the root of sumac; nauny-berry or sheep-berry bark of the root; black snake-root (a small black, bitter root): bruise and boil all together, and make a strong decoction; then a piece of alum, sweeten with molasses, and bottle of use: gargle the throat and wash the mouth. This, it is said, cured all. I have used this with the very same effect with the above constitutional means.

HICCOUGH. (SINGULTUS.)—The hiccough is a spasmodic or convulsive affection of the stomach and midriff, arising from any cause which irritates their nervous fibres. It may proceed from excess in eating or drinking, or from eating too fast, imperfect mastication, and injury of the stomach, poisons, wind, &c. If poison be the cause, plenty of oil and milk must be taken. Treatment or which is better prevention, or remove the cause by giving our general means, &c.

SEA-SICKNESS.—This is a nausea or tendency to vomit, which varies in respect of duration in different persons upon a sea-voyage; with some it continues only for a day or two, while with others it remains throughout the voyage.

Treatment.—As soon as a person begins to feel sick at sea, let him place himself in the open air on the deck, and in a recumbent position. Where there is retching or vomiting the Neutralizing Mixture must be used; what is better at first take an emetic of warm water, and bathe your feet in warm water, also, apply the abdominal bandage to the stomach cold, after the operation of the emetic, take the above mixture to phisic, or cleanse your bowels. If this disease proves obstinate cold water dashing into the face, and the wet sheet-pack, &c., must be made use of, abstaining as much as possible from diet especially greasy, salted, &c.

INDIGESTION. (DYSPEPSIA).—These terms are used synonymously to denote a disease of the stomach and contiguous viscera. It is characterized by derangements of the digestive functions, the cause of which appears to be a diminished or increased quantity or vitiated quality of the gastric juice or the secretion of bile; and this may be produced by a loss of vitality or action in the chylopoietic viscera, rendering them unable to perform their functions. Sometimes this disease is called indigestion, sometimes dyspepsia.

Symptoms.—Depraved appetite, unnatural thirst, flatulence, acrid eructations, heartburn, or water-brash, irregular bowels, and sick headache, are among the multitudinous symptoms of dyspepsia; yet the disease may exist with the absence of either one or the majority of them, irregular appetite, constipation, or diarrhoea, or those states alternating, sense of weight or other feeling of distress after eating, food digested with difficulty, depressed spirits, disturbed sleep, occasional pain or tenderness in the region of the stomach, sometimes palpitation or throbbing of the heart, furred tongue, and slow, irregular, or intermittent pulse. Also, a great many more symptoms make their appearance too numerous to mention, &c.

Treatment.—No other disease presents itself under so great a variety of complications; although the principles which regulate its treatment are very simple, there is an unlimited opportunity for the exercise of skill and tact in the management of a dyspeptic invalid. Usually we have to deal with fickle tempers, despondent minds, strong morbid appetites with weak resolutions, all of which circumstances are aggravated by the patient

having previously doctored with all sorts of doctors, and swallowed every thing he could read in the newspapers in the shape of nastrums. Nothing dare be drunk but water; tea, coffee, and tobacco in all shapes and forms must be avoided, &c.

The objects to be kept in view, in the treatment of dyspepsia, are, 1. To obviate the several exciting causes of it; 2. To expel from the stomach the several offending agents; 3. To obviate costiveness; 4. To improve the tone or energy of the stomach, and restore a healthy state of the secretions; and 5. To remove urgent or distressing symptoms. With the view of fulfilling the first indication, the patient must abstain from every exciting cause which he is conscious has given rise to the disease, whether in eating or drinking or, in any other irregularity.— For the second indication, viz: removing from the stomach all offensive or morbid agents, an emetic may be given. The day after the emetic has been given, a purgative or injection may be administered. In obstinate cases the compound of May-apple-root is the best. Injections prove very beneficial. It will be necessary to repeat each of the above mentioned classes of medicine once a week, especially where the disease is of long standing and obstinate. In the mean time, say daily sitz or hip-bath, foot-bath, rub-sheet, and the abdominal bandage.— The wet-sheet-pack may be made use of every other or third day, according to circumstances. The above baths may at first be used warm or tepid, and reduced in temperature as the patient can bear. Also, daily injection tepid or cool. Drinking a good deal of water (see Introduction on water drinking), in addition to the means recommended, the patient must endeavor to regulate the bowels, if possible, by a certain course of diet; here the coarse brown bread is very good. (The wheat should be ground coarse, but not bolted, and be made in all respect as ordinary bread.) I do not remember a single case, saith, Dr. Beache, however costive the bowels may have been where this bread has failed to regulate them, as well as to improve the state of the stomach. The fourth indication is to improve the tone of the stomach. To fulfil this the Anti-Dyspeptic Pills (see Pharmacy) are well calculated to cleanse the stomach and bowels, and regulate them; and also gives tone and energy to it without causing debility. Dr. Beache remarks, these pills have cured many a case of dyspepsia without any other remedies. Also, one most valuable remedy is the Restorative Wine Bitters of this the patient must take from a quarter to half a wineglassful three times a day before meals, or on an empty stomach. This creates an appetite, and strengthens the system generally. When acid is present, as sour eructations, &c., the Neutralizing Mixture must be given in doses of ten grains, given two or three times a day in a little sweetened water. Where the pain is very great, flannel dipped

in vinegar and squeezed should be applied over the abdomen and stomach, and then a smoothing-iron heated and passed over this until dry, which may be repeated as often as the pain returns. Or hot fomentations may be used, &c.

Diet.—The patient must always rise from the table with an appetite somewhat sharp, and whatever he finds creates flatulence or wind or any uneasiness must be carefully laid aside.—The only meat the patient dare eat, is cold beef, lamb, and chicken in very small quantities, or rather none at all. Nature enjoins us to live in the open air, and, in some way or other, to work for what we eat. With air and exercise, human stamina may be maintained on vegetable food, pulse, grain, and legumens, alone.

GASTRODYNNIA, OR, GASTRALGIA.—The stomach is liable to a neuralgic affection which is known by this name, as well as by the term Cardialgia. Gastralgia is closely connected with dyspepsia, often occurring as a symptom; but it may exist as a primary disease.

Symptoms.—Sometimes the appetite remains good, but in general it is impaired. There is gnawing pain in the stomach extending very deep to the back, accompanied by anxiety, sense of constriction, tendency to eructate or vomit, with occasional faintness, sometimes headache and costiveness, and the patient is occasionally relieved by eructations. In fact this is often complicated with pyrosis or water-brash. Gastrodynia, Pyrosis, and other symptomatic affections, are removed when the gastric disorder which originates or accompanies them has been removed.

WATER-BRASH. (PYROSIS).—This affection is caused by indigestion; it is known by a burning pain in the stomach, attended with copious eructations generally of an insipid watery fluid. Whatever deranges the functions of the stomach or the surrounding viscera, may give rise to pyrosis, as dyspepsia, acidity, &c. The pain, after proving severe, and continuing for some time, is followed by eructations and the discharge of a considerable quantity of a thin watery fluid, sometimes of an acid taste, but often quite insipid. In some cases considerable quantities of water are discharged from the stomach.

Treatment.—The following liquid will be found a remedy:—Take Elixir Salutis, or compound Tincture of Senna, 8 ounces; Tincture of the Balsam of Tolu, half an ounce. Mix. Of this the patient will take a tablespoonful every morning fasting.

INTESTINAL, OR BOWEL DISEASES.

THIS class of diseases is characterized by more or less pain in the abdomen, nausea, vomiting, and prostration of strength, with fever, and either costiveness or copious evacuations; the mucus membrane is generally the seat of the affection.

DYSENTERY, OR BLOODY FLUX. (DYSENTERIA).—We understand by this term an inflammation of the mucus membrane of the large intestines or bowels, particularly of the colon, characterized generally by nausea, pain, tenesmus, with fetid, mucus, and bloody evacuations; it is divided into two varieties, acute and chronic.

Symptoms.—This complaint is generally preceded by derangement of the digestive organs, often with fever, chills, lassitude and more or less griping pains in the bowels, &c.

Causes.—Errors of all kind are the principal pre-disposing, and undue exposure to cold, damp, sudden alternation of temperature, &c. Bad water and marsh effluvia sometimes occasion the worst forms of the disease.

Treatment.—When there is general fever the warm wet-sheet-pack must be made use of, also, hip-bath tepid, warm foot-bath, cool injections, and the belly bandage cold, and often repeated, also rub-sheet, and drinking cool water, or mucilage of Slippery Elm. The hip, foot, and injections may be repeated two, three or four times a day, and the wet-sheet-pack once or twice a day, according to the feverish symptoms; in the pack hot-bricks must be applied to the feet, and cold cloths to the belly. Also, in the beginning of the disease, if the tongue is much coated, with nausea, &c., showing a morbid condition of the stomach, an emetic of warm water or Beache's Emetic Powder may be given; this may be followed by a gentle physic, as the Neutralizing Physic. Also, a very excellent injection is composed of the following: Take mucilage of Slippery Elm bark, 1 pint; (Slippery Elm, 1 ounce; boiling water poured over it one pint, let stand till cool); Milk, 1 pint; Olive Oil, 1

wineglassful; Molasses, half a pint; common Salt, fine, 1 teaspoonful; mix; and let it be introduced a little warm, with a large syringe.

Diet and Drinks.—Cold water, with well-toasted wheat bread put in it, makes a very good drink. Rice-flour, scalded in water and then boiled in milk, is a very good diet. There is no better nourishment than mutton-broth, to which is added a little salt and pepper.

CHRONIC DYSENTERY.—This is usually sequel of the acute form, and differs from it, being milder in its symptoms; but it is much more protracted in its course: here the treatment is found almost the same, but some variations; first an emetic, this followed by the Neutralizing Physic; also, enemata or injections must be used. And tonics are very excellent here, say tincture of golden-seal in doses of ten to thirty drops three or four times a day. Also, the other means must be made use of, as the wet-sheet-pack, hip-foot-baths, &c.

Diet.—Of easy digestion, and nourishing; good pure air and exercise. These means never fail.

DIARRHŒA, OR BOWEL COMPLAINT.—Character. Frequent feculent stools, generally copious, always more liquid than natural, commonly attended with griping, but free from tenesmus and fever.

Causes.—Some act directly on the alimentary canal; others indirectly, through the medium of the general system. Of the former kind, are: indigestible and irritating articles of food; acrid secretions; worms; acid, and other irritating substances received into the stomach. Among the more general causes, are: dentition, cold, particularly when connected with humidity; repelled cutaneous eruptions; various general and local diseases, as phthisis, affections of the liver, &c. It may also be excited by violent mental emotions, as terror and grief, &c.

Treatment.—The treatment may be the same as Cholera Infantum, the Neutralizing Mixture must be used, with the hip-bath, injections, and belly bandage; if much pain is present fomentations may be used. Also, like in dysentery an Emetic,

and followed by the Neutralizing Physic, in the chronic form the tincture of Prickly Ash berries, made as follows: Take Prickly Ash Berries, pulverized, one and a half pounds; Diluted Alcohol, half a gallon; digest in a warm place for ten days or twenty-four hours in a sand-bath, press and filter. *Dose* from half to one ounce, repeated every half hour; &c. This is also, a very good remedy in Cholera.

Diet.—Arrow-root, boiled milk and flour, and cold milk which has been boiled and sweetened, with the addition of a little brandy.

COLIC. (COLICA).—Colic is characterized by great pain in the bowels, seated principally in the umbilical region, and extending to the stomach, accompanied with nausea, retching or vomiting, and often a spasmodic contraction of the muscles of the abdomen. Several species of colic are enumerated:—

1. *Flatulent Colic.*—This is characterized by costiveness, griping in the bowels, a rumbling noise, distension of the stomach, severe pain, with an inclination to vomit, &c.

2. *Hysterie Colic.*—This is known by nausea and sickness at the stomach, severe spasms, costiveness, and dejection of spirits.

3. *Bilious Colic.*—This exists when there is a bitter taste in the mouth, with thirst, febrile heat, a vomiting of bilious matter, and costiveness.

4. *Painters Colic.*—This species of colic differs from the others in some respects, being caused by the absorption of lead, and characterized by severe shooting pains.

Colic is so called from its being more directly seated in the intestines or bowels called the colon, than in any other.

Causes.—Colic is produced by various causes, such as aced and crude food, wind, an abundance of acrid bile, long continued costiveness, hardened feces, certain metallic poisons, derangement of the stomach, worms, and from swallowing lead or other poisons. Colic may arise from a diseased condition of the biliary secretion.

Treatment.—The first variety, or wind colic: an injection of salt and water, say 1 teaspoonful of fine salt, and boiling water 1 pint, add cold water 1 pint and when tepid inject, also, brisk friction to the stomach and bowels, either with or without a hip-bath. Also, an emetic of either warm water, or Beache's

Emetic Powder, followed by the compound of May-apple-root. An injection made as follows: Take Cayenne pepper, 1 teaspoonful; Lobelia, 2 teaspoonsful; 1 pint of boiling water. Let it stand to draw out the strength, sweeten with molasses, and add half a pint of milk and a gill of Sweet Oil. Inject warm as much as the patient can bear. This will excite the action of the bowels and bring on evacuations. Also, hip, foot-bath, &c., must be used. The second or Hysteric Colic requires the above or similar treatment.

The third or Bilious Colic; this generally seizes the patient with a vomiting of a yellow-greenish color. Here the Neutralizing Mixture must be given to neutralize the acid, and the aforesaid injection used (see wind colic) with hip, foot and other bath warm or hot, also, friction to the feet, hands and back. These frictions may be caused with dry flannel or the hand. Euphorbia Corolata or Spurge, is an infallible remedy in wind Bilious Colic. *Dose*: 15 to 25 grains. This evacuates the stomach and bowels, and gives permanent relief. Also, sweating must be promoted if possible, giving, if suitable, the sudorific tincture (see Pharmacy), or the alcoholic-vapor-bath, or warm wet-sheet-pack, &c. These means never fail, if punctually used.

The fourth or Painters or Lead Colic. Here the above injection must be used, and the other means; with very brisk friction to the limbs, &c. Fomentations must be made use of, the treatment is nearly the same as in bilious colic, but more active and energetically used. A warm half bath may be given by taking a large wash-tub, almost full, of as warm water as the patient can bear, strip him and put him (after administering that injection,) right into the water, and keep continually rubbing him there all over his body for fifteen or twenty minutes, then put him to bed and apply hot bricks to the feet, and one brick hot covered with flannel cloth, wet in vinegar to the stomach, and one in the same manner to the bowels; now give him the sudorific drops (see Pharmacy) and warm tea, as catnep, sage, &c., to bring him into sweat; this followed by the alkaline rub-sheet or hand-bath, also, an injection of tobaceo is of very great value. Take tobacco, a teaspoonful; boiling water, a pint; when it is sufficiently cool, inject it. Also, one or two drops of Croton Oil given in a little milk is very effectual, and will cure when other means fail; saith, Dr. Beache. Also, Croton Oil may be rubbed upon the bowels, and a few drops added to the tobaceo injection. If one or two drops of Croton Oil don't physic in a short time repeat the dose till it operates. Dioscorea Villosa, or Yam-root or Colic-root, a strong tea of this is a specific in bilious colic. *Dose*, half a teacupful, every ten minutes.

COSTIVENESS. (CONSTIPATIO).—A costive state of the bowels may be either constitutional or symptomatic; generally the latter. Sedentary persons are peculiarly liable to this complaint, especially those of a sanguineous or choleric temperament. Costiveness is frequently caused by neglecting the usual times of going to stool, and checking the natural tendency to those salutary excretions; receiving into the stomach animal food, &c.

Treatment.—This disease is to be obviated by an attention to diet; by using principally vegetable food, particularly bread made of unbolted flour. Exercise is very important, also, injections, and hip-bath, daily injections and attention to diet will eradicate a cure, or the Anti-Dyspeptic Pill given at bed time. Also, resin of mandrake (Podophylline), in half or quarter grain doses, will be found valuable; the last has the advantage over other remedies, as it keeps a constant action of the liver and bowels. This remedy is by far superior to Calomel or any minerals, and is altogether harmless. Bathe the abdomen daily with a little of the following mixture: Croton Oil, 1 drachm; Olive Oil, 1 ounce. Mix.

DROPSICAL DISEASES.

IN the present class of diseases, we understand a collection of serum in the different cavities or parts of the body, impeding or preventing the due exercise of the various functions of the system. Diminished absorption or increased effusion, or both united, is generally considered a proximate cause of the different species of dropsy. The term dropsy, then, signifies a morbid accumulation of watery or serous fluid in the cellular tissue or serous cavities. When the effusion of serum takes place in cellular structure, it is denominated, when extensive, "anasarca;" when confined to one part "œdema;" when its seat is in the arachnoid membrane, it is termed "hydrocephalus," or dropsy of the brain; when in the pleural cavities, "hydrothorax," or dropsy of the chest; "when in the pericardium, the term is hydropericardium," or dropsy of the heart; and when the disease is limited to the peritoneum, it is called "ascites," or abdominal dropsy. By the name dropsy is understood the general effusion of serum, so as to occupy all or most of the above named positions, to a greater or less extent, at the same time.

Symptoms.—In this disease, the urine is generally, though not always, small in quantity; its color, also is more or less changed from the natural appearance, the varieties or shades differing in different cases, being sometimes pale and limpid, at others high colored, turbid, albuminous, dark, fetid, and scanty. The perspiration is commonly deficient in dropsy; indeed, a check of this elimination is one of the grand causes of the disease. The bowels are also, in a constipated condition, and even insensible to the action of purative medicines.

Causes.—Dropsy is often occasioned by a check of perspiration, or catching cold. Disease of the kidneys, is a cause.—Also, diseases of the liver, and sequel of scarlet fever, &c. Blood-letting is a great cause of dropsy. Dropsy assumes various local forms, and is divided into: 1. Hydrocephalus. 2. Hydrothorax. 3. Ascites. 4. Anasarca.

HYDROCEPHALUS.—This is a very rare affection. When it does occur, however, the head is generally swelled. The duration of the disease is uncertain. Most of those affected with this species of dropsy die in infancy; they sometimes live many years, even to old age.

Diagnosis.—Easy. It is divided into internal and external.

Prognosis.—Unfavorable, sometimes favorable.

Treatment.—Same as recommended under general dropsy.

Diet.—This is to be nourishing. Fats and alcohol must be excluded.

HYDROTHORAX, OR DROPSY OF THE CHEST.—This variety of dropsy may occupy the cavity of the pleura, that of the pericardium, and the substance of the lungs. It may be confounded with effusion of pus in the pleural cavities, with the effusion of blood, and with consolidation of the lungs from pneumonia, &c.

Causes and Treatment.—The same as general dropsy.

ASCITES, OR ABDOMINAL DROPSY.—This term is now confined to dropsy of the peritoneal cavity. The first

intimation which the patient has of the presence of this disease, is the difficulty he experiences in adjusting his clothing, unusual pressure, &c. Another circumstance indicating the nature of this complaint, is the bulging out of the sides of the abdomen, and the depression of the interior surface when the person is in the recumbent position. Occasionally the skin at the umbilicus is stretched and everted, so as to form a small pouch.—Ascites is liable to be confounded with pregnancy, tympanitis, an enormously distended bladder, and the various forms of encysted dropsy.

Causes and Treatment.—(See general Dropsy).

ANASARCA.—Swelling more generally diffused in the morning on getting up, gravitating to the extremities toward evening. It may be known from other swellings, by the skin retaining impressions made on the surface, by pressure from the fingers, usually termed “pitting.”

Treatment.—(See general Dropsy). When extremities become inflamed in dropsy, it must be treated as in other inflammations, &c.

OVARIAN DROPSY.—In this disease, the water, instead of occupying the cavity of the peritoneum, is contained in cysts within the abdomen. This disease is generally slow in its progress; sometimes, however, it is rapid.

Diagnosis.—Difficult.

Prognosis.—Unfavorable.

Treatment.—(See general Dropsy).

HYDROPS UTERI.—This is distinguished from the dropsy of the abdomen by its being confined to the region of the uterus. This disease is soon followed by general dropsy, a slow fever, and emaciation.

Treatment.—The treatment for this is the same as ascites or dropsy of the abdomen.

TREATMENT OF DROPSY IN GENERAL.—In the first place we must remove urgent symptoms. Second, restore all the excretories, and promote absorption. Thus we may in general begin with an emetic, followed by a brisk physic; this must be repeated two or three times a week according to the strength of the patient. Diuretics, Diaphoretics, Alteratives, Stimulants, Tonics and Laxatives; to fulfil these indications, we will commence with our local treatment: daily the wet-sheet pack, and changed often, every third or fourth day; the alcoholic vapor-bath in place of the wet-sheet pack; these must be followed by the rub-sheet or hand-bath, either tepid or cold, with a powerful sight of friction to the whole body. Also daily hip-bath (especially in dropsy of the abdomen,) warm or cold, followed by brisk friction and foot-bath, the cold shallow or warm; also the warm douche has an excellent effect to promote absorption; also the jacket, or bandage must be worn according to what form of dropsy it is; if it is dropsy of the chest, the chest wrapper must be worn; if of the abdomen, the abdominal bandage must be worn. The patient ought to take as much exercise in the pure air as possible, either by walking or riding. Also, injections are of great importance in the different species of dropsy, as these have a tendency to restore the bowels and promote absorption, &c. The above course must be persevered in day after day. As emetics and purgatives, an excellent hydragogue is dwarf elder, made into a strong tea, and give daily as much as the stomach can bear; as an emetic I find *Euphorbia Carolata* or Spurge, one of the best, as this causes vomiting and physics; dose of the powdered root from ten to twenty-five grains. As an excellent hydragogue cathartic, is a pill made of one or two drops of croton oil, one drop is mostly always enough for one dose, mixed with castile soap, and made into a pill. The following is an excellent remedy, combined of tonic, diuretic, stimulant, &c.: Take Old Cider, 4 gallons; White Oak Bark, *quercus alba*, 10 ounces; Horseradish Root, *cochlearia armoracia*, 1 pound; Senega Snake-Root, *polygala senega*, 6 ounces; Buchu-Leaves, *diasma crenata*, 8 ounces; Golden Seal, *hydrastis canadensis*, 4 ounces; Cayenne Pepper, *capsicum baccutum*, 2 ounces; bruise all fine and add the cider; let it be shaken up every day for eight or ten days. Dose for an adult, half or two thirds of a wineglassful three times a day before meals. Also, as a tonic the Restorative wine bitters may be given with considerable advantage; in the mean time diuretic teas must be given—as the patient's strength allows; such as parsley, senega snake-root, burdock-seed, &c. Also the *artemesia vulgaris*, or rag-weed; this plant is an excellent remedy particularly in dropsy of the chest. The best method of giving it is as follows: make a strong decoction of the plant, give according to the urgency of the case, say from

four to five tumblersful in the course of a day. We must principally rely on the constitutional remedies, as before said, daily wet-sheet pack, foot, hip, douche, hand-baths, with occasional emetics (either of warm water or our common dry emetics are better), and injections, a few drops of croton oil may be added to each or some injections. Also we must change in this treatment according to symptoms.

Diet—Must be dry and rather stimulating in dropsy; mustard, horse-radish, red-pepper, &c., may be taken with food. As little fluid as possible while eating must be taken into the stomach. Tapping in dropsy is all the go of treatment among our nostrum, which always proves fatal. In some cases tapping may be indicated, but the patient's excretories and secretories must be restored before we make an attempt, or else we are unsuccessful.

UTERINE DISEASES,

By this term we understand those diseases peculiar to the uterus or womb, and its appendages, except some organic and malignant diseases, treated under the head of Surgery. Under this class I shall treat of the following six diseased conditions of menstruation, and of the other affections which present themselves in practice:—1. Amenorrhœa, or obstruction of the menses or courses. 2. Dysmenorrhœa, or difficult and painful menstruation. 3. Menorrhagia, immoderate flow of the menses and abortion. 4. Cessation of the menses. 5. Leucorrhœa, or fluor albus. 6. Prolapsus Uteri, or falling of the womb.

AMENORRHŒA. (CHLAROSIS).—*Symptoms.*—This is a retention when the menstrual flux is obstructed at the period of its approach; and a suppression when the obstruction occurs regularly at the usual period of recurrence. The former variety is characterized by an œdematous swelling of the feet and ankles at night, and a swelling of the eyes and face in the morning; and a pale livid and greenish cast of the skin, debility, &c. Also, this is a deficient menstruation occurring about the age of puberty or completely lost. The latter is attended with headache, difficult breathing, palpitation, &c.; both varieties (retained at the age of puberty, or suppression at a regular recurrence,) are attended with general languor and many dyspeptic symptoms, particularly a capricious appetite, and not

unfrequently a longing for innutrient and injurious substances. In many cases there is a harrassing cough, with symptoms of hectic fever and general decline.

Diagnosis.—It is all-important that the physieian should discriminate between amenorrhœa arising from ordinary causes and retention arising from pregnancy; because a mistake here may injure the patient and the eharacter of the physician. A minute history of the disease will generally enable us to form a correet opinion of suppression. There is one diagnostic symptom, saith Dr. Beache, I always rely upon in preference to any other, which is this: that in gestation or pregnancy the patient does not complain of dizziness of the eyes, with a staggering or reeling sensation, which in most, if not in all, is the case in obstruction of the menses, arising from a check of perspiration and other causes.

Treatment.—First indication is to correet the morbid state of the blood, by our general treatment, say if the stomach is foul begin with an emetic, followed by our compound of may-apple root to physie the patient mildly. Next, daily or every morning a full-bath, rubbing-sheet or hand-wash; also, from two to three hip-baths daily, and one or two foot-baths daily, and the wet-sheet pack several times a week, and the abdominal bandage must be worn. Also, alteratives and tonics must be given, as the Restorative Wine Bitters mornings and evenings, and the alterative syrup (see Pharmacy) at or before dinner, and the anti-dyspeptic pill must be given at bed time to regulate the bowels, or injections. This disease like a great many others can be cured without medicine, but it requires a longer time of persevering.

Diet.—A plain solid diet, rather dry and unstimulating, with a good deal of out door exercise. If urgent symptoms should be present, and the patient laboring under pain; the diaphoretic powders (see Pharmacy) may be given to produce sweating, aided by penny-royal or other herb tea. Here the warm hip-baths are excellent when the patient is put to bed; hot fomentation (see Pharmacy) must be applied to the parts, and if the pain don't cease, repeat the warm hip and foot-baths; also the alcoholic vapor-bath may here be used with great success, or an injection of warm water, &c.

PAINFUL MENSTRUATION. (DYSMENORRHEA.)—Symptoms.—It is sometimes the case, after the menses have become regular, that from various causes they may again be totally or

partially suppressed. It may not return at the next expected period, but it may be suddenly checked during its flow. When this is the case, the abdomen becomes swelled and painful, the mammary glands sometimes become tense and irritated, and the tongue is generally much coated; the appetite is indifferent, with more or less fever, headache, pain in the limbs, back and loins; and hemorrhages or bleeding frequently takes place from the lungs, stomach and nose; the bowels are constipated and there is usually a train of nervous diseases, as spasm, &c. The balance of the circulation becomes deranged, and the blood instead of passing off by the natural outlets, is determined to different organs and gives rise to hemorrhage, or bleeding, which occurs as a salutary effort of nature to relieve these symptoms—such as headache, dimness of sight, lethargy, giddiness on stooping, (the great diagnostic symptom of this complaint,) and other symptoms indicating congestion and fullness of the head, &c.

Causes.—Bad health, debility caused by a loss of blood, exposure to cold, improper food, want of exercise, frequent abortion, &c.

Treatment.—Is the same as in Amenorrhœa. In all these cases the tincture of black cohosh is highly recommended by Prof. Morrow, of Cincinnati, and others; dose from half to a teaspoonful three times a day in a little sweetened water. Dr. Dewees states that he has never known the following to fail during thirty years' practice: take pulverized Gum Guaiacum, four ounces; Carbonate of Soda, half a drachm; pulverized Allspice, one ounce; diluted alcohol, one pint; digest a few days, and then add one or two drachms of heartshorn to every four ounces of the tincture.

Dose.—One teaspoonful, morning, noon and night, in sweetened milk or wine; gradually increase the dose.

IMMODERATE FLOW OF THE MENSES (MENORRHAGIA), WITH ABORTION.—By these terms we understand a preternatural flow of the menses, or of the lochia, with abortion.

Symptoms.—The symptoms induced by excessive menstruation are a feeble or intermittent pulse, cold extremities, weak respiration, general weakness of the system, loss of appetite, depression of spirits, &c.; an unbalanced circulation of the blood, is always the case.

Causes.—The ordinary exciting causes are a relaxation of

the muscular coats of the capillary vessels, in the organ or part which is the seat of it. Over-feeding, rich and high-seasoned dishes, drinking wine, porter, &c., want of exercise, external violence or symptomatic of other local affections; hot rooms and various causes which tend to increase a plethoric state of the system, &c.

Treatment.—All exciting causes of this disease must first be removed. The indications are, to balance the circulation, and invigorate the general system. Locally the coldest water or ice pounded, may be applied until the copious flow is lessened, at the same time warm foot-bath, followed by friction, and hot bricks applied to the feet, &c. Also cold hip-bath, and warm foot-bath will prove efficacious, and cold injections up the rectum have a powerful effect. Also give means to convey to the surface, or produce sweating; here the wet-sheet pack warm, with cold cloths to the region of the womb, or the alcoholic vapor-bath may be used, if the patient is of full-blood habit. All such means as will restore the general health, and balance of the circulation will give relief.

Diet.—Nutritious and of easy digestion, exercise in the pure air, and cold water drinking; these means daily repeated will soon eradicate a cure.

CESSATION OF THE MENSES.—This is an exact period in the life of the female: The menses usually cease about the age of forty-five; and subsides several years before it fully ceases, gradually diminishing at every period. It generally commences by an irregularity in its appearance, in point of time, as well as in the quantity of the discharge. The woman, of course, becomes incapable, after this, of conception. Cessation of the menses is attended with considerable derangement of the constitution. Periodically there is determination of blood to the head, &c. There are more or less debility and emaciation, and sometimes there is tumor or cancer of the breast. This disease effects great changes, for better or worse, in the spirits. But under our general system of hygiene, or preserving health, the above symptoms are not known. But they are the ease in morbid fatness; females that lead a sedentary life, &c., have the most to suffer from this disease.

Treatment.—Some of these symptoms are natural efforts of the system; and therefore cannot be removed, but as a general fact if the patient, will live according to the law of nature, little or no such symptoms will present themselves. When particular symptoms do arrive, (as is generally the case in our way of living,) let them be treated accordingly.

WHITES. (FLUOR ALBUS: LEUCORRHOEA).—Fluor Albus is a disease which affects the mucus membrane of the vagina and uterus or womb, which constantly secretes a fluid, in the healthy state of the parts, to keep the surface moist; but sometimes, from various sources of irritation, these parts pour out an unhealthy secretion, in both quantity and quality, which is vulgarly termed “whites;” but in scientific language, “fluor albus,” and “leucorrhœa.”

Symptoms.—In this disease the general health of the female is deranged, either primarily or secondarily. The functions of the stomach and bowels, become impaired and constipated; the abdomen is full and distended with flatus; the countenance is pale and unhealthy, and also the lips; there is a dull, heavy appearance about the eyes, with loss of their natural brilliancy; the circulation is unequal; the feet are cold during the day and at night become burning hot; also, palpitations of the heart, &c. In exercise, pain is experienced in the back or lumbar region; and it may cause relaxation of the ligaments of the womb, and give rise to prolapsus.

Discrimination.—Between Leucorrhœa, Gonorrhœa or Clap, one may be mistaken for another. Gonorrhœa or Clap commences shortly after copulation with an impure person, and it is attended with a burning sensation, pain and scalding in voiding urine, with more or less symptoms of inflammation; while in fluor albus these symptoms are seldom present. Again, fluor albus partakes more of a chronic character, which continues a length of time without much change, and the discharge is more like jelly or whiter than in gonorrhœa, although this symptom often varies.

Causes.—Fluor Albus may arise from any cause producing debility, particularly of the uterine organs; as frequent abortions, excessive venery, exposure to cold, damp, and fatigue. Women are more affected with this discharge during pregnancy than at any other period, &c. Undue lactation is a cause of this disease; also pessaries, repelled eruptions and uncleanness.

Treatment.—The chief object is to impart tone and energy to the system. If the stomach is in a disordered condition, a mild emetic may be given, as warm water or Beache’s emetic powder. But in general it is sufficient to commence with a moderate purgative, as the anti-dyspeptic pill, (see Pharmacy); also hip-baths and vaginal injections are always among the leading measures, and the temperature of the water for either purpose must be regulated by the condition of the patient. In some cases the diseased surface is so irritable that quite warm water proves the most available sedative. These baths ought

to be used warm at first and gradually reduced in temperature, as the patient feels the best; the injections may be used from two to four times daily, and the hip-bath once or twice daily. Also the belly bandage ought to be worn tightly day and night, re-wetted three times a day. Tonics are very useful if there is debility, and alteratives if there is morbid fatness, &c., as a tonic the Restorative Wine Bitters must be made use of; and as alterative or purifier of the blood, the alterative syrup (see Pharmacy) must be used. Also here the wet-sheet pack is of great value, followed by the alkaline rub-sheet or hand-bath, with friction. Also Dr. Beache recommends the Diuretic Pills (see Pharmacy) as a superior remedy in this and many other complaints of the hypogastric region.

Diet.—Principally vegetable and milk diet, with exercise in the pure air.

PROLAPSUS OF THE UTERUS—*or, Falling of the Womb.*—For this, in complete protrusion, reduce, (see Surgery); and a similar course of medical treatment to the above disease. Apply astringents by injecting, as white oak bark, hemlock, sumac berries or bark, equal parts; bruise or pulverize, and make a strong concentrated decoction, and to every pint add one drachm of pulverized alum. Inject morning and night.

CONSTITUTIONAL DISEASES.

By this class of diseases, we understand those affections which are not confined apparently to any particular organ, but which, to a greater or less extent, affect the whole system.

RHEUMATISM. (RHEUMATICUS.)—*Acute or Inflammatory.*—Rheumatism appears under two forms, acute and chronic. The acute form is an inflammation of the fibrous structures about the joints, and wandering, and attended by severe pain, with more or less fever.

Symptoms.—Before this disease manifests itself externally, there are peculiar constitutional symptoms. These consist in more or less severe shivering, alternation with flushes of heat, followed by quickness and fulness of the pulse, hot skin, thirst, and a sensation of fatigue in the back and extremities. After several hours, and sometimes not before the expiration of a day

or two; an aching or gnawing pain is felt in one or more of the larger joints, which goes on increasing until it becomes exceedingly severe, often lancinating as in gout, and greatly aggravated by the slightest movement or pressure. The affected joints become swollen, and the skin covering them acquires a rosy tint, which generally appears in patches. The fever gains ground with the increased severity of the local symptoms; the pulse full and bounding, varying from a hundred to a hundred and twenty beats in a minute; the eyes are red; the urine is scanty, and of a brick color; the tongue is white and furred, but continues moist; there is considerable thirst, and the appetite is lost.

Causes.—Unusual exposure to wet and cold while the body is in a state of exhaustion or obstruction, seem to be the general producing causes of all forms of rheumatic affections.

Treatment.—The first indication is to remove urgent symptoms; and second to restore the balance of the circulation. First, we may give an emetic (where the tongue is coated,) of warm water or Beache's emetic powder; Second, apply the alcoholic vapor-bath, followed by the alkaline hand-bath, (see Introduction); this vapor-bath must be repeated two to four times a day, if the patient's strength will bear it. Also a continual moisture of the skin must be kept up through the course. Injections or purgatives must be given several hours after the operation of the emetic; sweating the patient copiously if his strength allows it. By the vapor-bath given as above said, (or see Introduction), I have relieved the worst kind of inflammatory rheumatism (that had previously been fed on calomel and tartar emetic for weeks, and the cases when I received them at my hospital, were distressing) from three to four days, and the patient suffered no more pain, nor no more fever, but was relieved, and only needed a mild course of alterative treatment to expel the calomel, tartar emetic and opium, which was given previous to coming to my hospital. Also, the warm douche followed by the cold dash, saith Dr. Trall is very efficacious, but the alcoholic vapor-bath is superior to any thing else. But after the acute or inflammatory symptoms have subsided, the warm wet sheet-pack may be daily continued till all the symptoms have subsided, &c., and the patient is permanently cured. Also at this time the Alterative syrup ought to be used, with occasionally a purgative, combined of Senna and Manna of each half an ounce, and one drachm of Cream of Tartar, this must be infused or a tea made; dose, from half to a teacupful every three or four hours till it operates freely. Also, warm foot-bath must never be forgotten at bed-time; the Sudorific Tincture or Diaphoretic Powders (see Pharmacy) may also be used to produce sweating, and keep up a determination to the

surface. As local remedies to the affected or swollen joints, take equal parts of Lobelia, Hops and Catnep; boiled till all the strength is extracted, then strain and while hot add one fourth Gum camphor pulverized, flannel cloths dipped in this solution, and warm applied to the swollen parts, often renewed.

CHRONIC RHEUMATISM.—This is usually the sequel to the acute rheumatism: the symptoms are less severe, but of longer duration. There is little or no redness or swelling of the parts present; there is no fever, but pain is often severe and confined to particular joints or parts.

Symptoms.—Stiffness and constriction of the joints, and the tendons become thickened and knotty.

Causes.—Sudden changes of the weather, which render the secretions and excretions unhealthy, and interrupt the balance of the circulation of the blood. In this disease, it appears, the blood is in a thickened and sily state, and becomes stagnated in the capillaries.

Treatment.—In the treatment of this disease, we must carry out the principles laid down in other diseases, to balance the circulation and relieve pain; here the daily alcoholic vapor-bath or the wet sheet-pack, with hip-bath, foot-bath, douche, &c. Internally give an emetic occasionally, and purgatives to regulate the bowels, or injection may be used, also our Alterative Syrup ought to be given; in mercurial rheumatism the above treatment must be persevered in daily.

Diet.—A vegetable and nourishing diet is the best, avoiding animal food, &c. Good air and exercise must be indulged in.

GOUT. (PODAGRA.)—By the term “Gout,” we may understand a disease characterized by constitutional as well as local irritability. It appears first in the system with gastro-intestinal irritation, and subsequently swelling and pain in the small joints; and generally attacks persons of plethoric habits, who indulge in the use of stimulating food and drinks. Gout appears to be a species of rheumatism, and in some respects is very similar to it; the principal difference consists in this, that in rheumatism the local disease affects the larger joints, while the gout affects the smaller ones, as the toes.

Symptoms.—The tongue has always a morbid appearance, being loaded, or having a fiery-red color, or being shrunk or blanched; the bowels are irregular; the patient feels loaded and oppressed after eating; there is acidity of the stomach, and heart-burn which is sometimes excruciating, accompanied by occasional vomiting of very acid matter. The epigastric region cannot bear pressure; the urine is scanty, high-colored, and becomes thick and muddy after standing.

Diagnosis.—Gout may be distinguished from rheumatism by its commencement in the small instead of the large joints; also by the peculiar manner of attack. When gouty diathesis is strongly marked, the joints of the toes and sometimes those of the fingers, are permanently enlarged and disfigured.

Causes.—The exciting causes of this disease are numerous; among which may be mentioned excessive intemperance, redundancy of bile, an accumulation of acid in the stomach, cold and humidity, external injuries, fatigue, mental anxiety, violent passions, &c.

Treatment.—The treatment for gout is the same as that for acute rheumatism. Internally administer emetics, purgatives, and alteratives. Externally the alcoholic vapor-bath, and fomentations to the affected joints, &c.

Diet.—A hunger-cure diet should be used, principally vegetables with as much water-drinking as the stomach can well bear.

DIABETES.—This disease arises in the blood, and affects the kidneys, &c. It is also termed water-flux, or urinary dropsy, it consists in a free or profuse discharge of urine, of a violent smell, and generally of a sweet taste, attended with great thirst and general debility. Medical writings are full of speculations as to the nature and proximate cause of the saccharine matter or sugar which is sometimes found in very large quantities in the urine of diabetic patients; but as they shed no light on the subject, they are hardly worth our attention and limited space. The most important fact they have made us acquainted with, is that the skin is always in a condition of extreme torpitude.

Treatment.—The stomach, kidneys and skin are the organs to be restored, and if there is debility, tonics must be given. Then tonics, laxatives, diuretics and alteratives must be made use of internally; and externally the wet-sheet pack warm, followed by the alkaline dripping-sheet, with brisk friction to

the skin, warm hip-bath and belly bandage, these measures must daily be repeated till the disease is cured. The anti-dyspeptic pill may be given to regulate the bowels, or injections. As tonic the restorative wine bitters: such as alterative or purifier of the blood, the alterative syrup may be given; and as diuretics, a tea made strong of queen-of-the-meadow, (*Spina Purpurea*,) and freely drank; water may also be drank to the extent of thirst.

Diet.—This should be mainly farinaceous, and the articles principally dry or solid, as wheat-meal biscuits, brown bread, roasted potatoes, graham crackers, &c.

SCURVY. (*SCORBUTUS*.)—Scurvy is a disease which evidently arises from a depraved state of the blood. The blood, when in a natural state, stimulates and nourishes every organ and stricture of the body; but when this vital fluid is altered in quality, it is no longer capable of fulfilling the purpose for which it is destined, and the whole animal economy suffers in consequence.

Symptoms.—The first symptoms which announce this morbid change in the circulation, are general weakness, disinclination to move about, great lassitude after any ordinary bodily exercise, dull heavy pains in the back and limbs, great depression of spirits, disturbed sleep, weak and frequent pulse, loss of appetite, slow digestion, cold dry skin, hurried breathing, and palpitation of the heart on walking a little quicker than usual, or from any other bodily exertion. The skin which is at first unusually pale, gradually assumes a dingy, yellowish hue; the face looks puffed or bloated; the gums become swollen, dark, red colored or livid; spongy, and bleed from the slightest friction. As the disease advances, the teeth loosen, the gums ulcerate, fungous excrescences shoot up from the ulcers, and the breath acquires an exceedingly offensive smell. Also as the disease gains ground the knee joints contract, the hams become swollen, hard, painful, &c., small, round, purple-colored spots, and large discolored, bruise-like patches, are most principally seen on the lower extremities.

Causes.—Stale or old food, salted provisions, and extensive flesh-meat diet, and vitated or foul air, are the ordinary producing causes; they are almost always associated with inattention to personal cleanliness. Either of these causes alone may produce a modified form of scurvy, but all operating together generate the most aggravated cases.

Treatment.—Since the scurvy is generally produced by errors in diet and regimen, the cure must depend upon pursuing a course directly opposite. The impoverished state of the blood, brought on by too much salt and animal food, must be corrected by abstinence from them, and the substitution of vegetables of various kinds, must be made use of; such as brown bread, wheaten grits, mealy potatoes, good apples, &c., are the best anti-scorbutics known. The stomach and bowels, and all the secretions and excretions must be regulated; and in some cases alteratives may be required, as the alterative syrup. Externally—daily wet sheet-pack, tepid hip bath, foot bath, dripping rub-sheet, and injections must be made use of in some bad cases. In the milder cases, daily rub-sheet. Dieting and exercise in the pure air is sufficient; cold water should freely be drank, &c.

YAWS. (FRAMBŒSIA.)—Yaws is a disease peculiar to the West India Islands, and is said to be imported from Africa. It is propagated by contagion. It occasionally attacks white people, but they are less liable to it than the blacks. It commences with fever. Raspberry-like protuberances grow from the skin, numerous and successively, one larger than the rest, which is called the master yaw. The disease lasts about nine months, occurring but once in life. There are two species: the African and the American.

Treatment.—This disease should be treated on general principles. The patient should be kept separate from other persons as much as possible.

EMACIATION.—*Wasting of the Body.* (MARASMUS.)—This is a disease which affects the young of both sexes.

Symptoms.—A sluggishness, loss of appetite, wasting of the flesh, fulness of the features, and paleness of the countenance, swelling of the belly or abdomen, and irregular and generally a costive state of the bowels, a change in the color and odor of the face, fetid breath, swelling of the upper lip, and itching of the nose; mark the beginning of the disease. When these symptoms have continued for sometime, they are followed by alternate paleness and flushings of the countenance, heat and dryness of the skin, feeble and quick pulse, thirst fretfulness, increasing debility and disturbed sleep; during which time the patients grind and gnash their teeth, and are subject to involuntary starting, and twitching of different muscles. Irregularity in diet and improper food, likewise, give rise to it. A great cause of marasmus, is drastic worm medicines.

Treatment.—Examine all the organs, and if any are found diseased, the treatment must be directed to them; otherwise treat on general principles. Give mandrake or may-apple root compound physic twice a week, or injections; and during the same time the restorative wine bitters, unless the fever should be too great; and let the child use nothing, but a milk and vegetable diet. Externally make use daily of the rub-sheet, foot-bath, &c., and every other day the wet sheet-pack; if any hectic fever is present this must be used daily, always followed by the alkaline rub-sheet or hand-bath, with brisk friction to the surface.

Diet—As above said, and rather a good deal of exercise in the pure air. If worms are a cause, treat accordingly.

MERCURIAL DISEASES AND SALIVATION.

THE symptoms of this disease are too well known to need description. We may observe, however, that they are soreness of the mouth and gums; looseness of the teeth; swelling and sometimes protrusion and inflammation of the tongue; constant and profuse discharge of saliva or spittle, wasting, &c. If those who give this poison to cure disease are not woful quacks, I do not understand the meaning of the term “quackery.”—*Beache.*

Treatment.—Other poisons yield to antidotes; they can be immediately dislodged from the stomach by an emetic; but this subtle poison insinuates itself into every part of the system, and diseases the fluids so extensively that its effects cannot always be easily removed. The same treatment, therefore, will not answer for this as in ordinary poisons. When the practitioner is called to the patient, if he is still using mercury in any form, he must order it to be immediately discontinued. A cooling gargle for the mouth is to be prescribed; and as soon as the patient can swallow, let him take Cream-of-tartar and Flowers-of-sulphur once or twice a day. The greatest suffering is experienced in consequence of taking cold after the use of it; when this happens, let the alterative syrup be freely taken; an infusion of Burdock-seed is also very good. A little sulphur mixed with Venice turpentine spread upon linen, and laid upon the parts affected. This treatment will be found the most efficacious; but it is extremely difficult to remove the consequences attending such lamentable malpractice. By far much better have no doctor at all, and leave the diseases

over to the laws of nature, which would oftentimes recover or gain ground and expel her enemy, without the aid of rank poisons, which are daily prescribed by our so called quacks. I here give you all a warning, to avoid the mineral practice of medicine and strike for a reformed eclectic system, as here given.

NIGHTMARE. (INCUBUS).—*Symptoms.*—The nightmare attacks the person during sleep, and the first approach of the fiend is usually in the shape of a disagreeable and frightful dream; &c. The symptoms are so common to need mentioning.

Causes.—An overloaded stomach, or some indigestible irritant in the alimentary canal. Dyspeptics, and nervous females are very liable to it. All persons who eat heavy or late suppers are in a state of predisposition.

Treatment.—Persons subject to nightmare must abstain from all kinds of food that is either flatulent or difficult of digestion, particularly at supper; they should take regular and sufficient exercise throughout the day, court cheerful society, and avoid gloomy contemplations, intense study, and late hours. Shaking, agitating, or awakening the patient will immediately arrest the paroxysm. As prevention or cure, give daily rub-sheet, regulate the bowels either by injections or the Anti-Dyspeptic Pills, and abstain from indigestible food, &c.

LOCAL DISEASES.

By this class we understand such diseases as are located more especially in some particular part of the body, but not affecting, apparently, any particular organ.

HEAT OF URINE. (ARDOR URINÆ).—From various causes, persons are afflicted with heat and scalding of the Urine. It often proceeds from venereal, but may arise from various causes; from inflammation of the kidneys, uterus, gravel, &c.

Treatment.—Cooling, and mucilaginous drinks must be taken for this complaint. Half a teaspoonful of the Diuretic Drops

(see Pharmacy) may be given in half a pint of spearmint tea; also a good deal of cold water may be drank. A cooling and spare diet should be used, and all heating kinds of food or liquids avoided. Butter-milk is an excellent diet. This will soon cure the complaint.

CATARRH IN THE HEAD.—The glands and membranes of the head secrete a fluid to keep the mouth, nose, and eyes, in a state of moisture; from cold, debility, and other causes, it is liable to become obstructed, in which case this liquid is secreted too copiously, when it is called a catarrh. This liquid that flows from the nostrils makes the eyes tender, irritates the nose, and occasions sneezing, or falls into the windpipe, and causes coughing, and, if long continued, the consumption.

Treatment.---Bathe head and shoulders with cold water, and warm foot bath, &c. Also, use cephalic snuff. The following is recommended a great snuff: Take Blood-root, Gum Arabic, Gum Myrrh, pulverized, equal parts. A botanic physician says he would not take five thousand dollars for an ounce of this snuff, in case he could not procure any more. Also, Dr. Beache speaks highly of a combination of Sage, a tablespoonful; black pepper, a teaspoonful; pulverize. Smoke two or three pipesful of this during the day, and force the smoke through the nose.

HEADACHE. (CEPHALALGIA.)---There are two kinds of headache; primary and symptomatic. This affection often arises from a morbid state of the stomach, in consequence of an effusion of bilious matter; when this happens, it is termed sick headache. It frequently proceeds from a determination of blood to the head, as well as from other causes.

Treatment.---In treating the headache, we must first ascertain the cause of it: if it proceeds from the stomach, our attention must be directed to that organ, and it must be cleansed by a gentle emetic, or, as a substitute, a purgative, which must be occasionally repeated. Also, the feet must daily be bathed. When it proceeds from irritability of the nervous system, daily wet-sheet-pack, followed by the alkaline rub-sheet, &c. Equal parts of blood-root and bay-berry, pulverized, may be used as a snuff. Sick-head-ache was cured by taking daily a table-spoonful of our Compound Tincture of Senna, Elixir Salutis; [see Pharmacy].

Diet--Is very important in this disorder, it should be vegetable, cooling and light, and such as easily digests. Stewed fruit is very good, as it tends to regulate the bowels, which is highly necessary. Bathing the crown of the head in cold water every morning when you rise, has proved a sovereign remedy for this complaint.

ONANISM, SELF-POLLUTION, &c.—By this disease is to be understood an excessive discharge of the seminal fluid, either naturally or artificially. It is a very common practice among men and women, more particularly in youth. The semen being the most vital fluid of the system, it is easily seen what the consequences must be when it is thrown off in an undue or excessive degree; and it is somewhat doubtful whether a discharge of it in any manner does not more or less injure the health, or lessen the growth of persons.

Symptoms.—This disorder produces febrile complaints, mania or mental derangement, dyspepsia or indigestion, hectic fever and debility. The more one indulges the practice, the greater the propensity for it. It causes a long train of complaints, tremors of the limbs, headache, restless nights, gleans or discharges from the urethra, pains in different parts of the system; the memory, judgment and reason become impaired; pain in the breast and loins; cough and consumption; weakness in the back and genitals; hypochondria, hysteria, and great despondency of mind.

Treatment.—The patient must immediately abandon the practice, and neither see nor think of women more than is possible. Internally give laxatives as the anti-dyspeptic pill, or injections; the diuretic drops through the day, and also the Restorative Wine Bitters may be taken if there is debility. Externally make daily use of the alkaline rub-shect, with friction; also daily foot and hip-baths, and every other or third day the wet-shect-pack, &c.

Diet—Cooling and nutritious vegetable diet, drinking milk, cold water, &c.

INCONTINENCE OF URINE. (ENEURESIS.)—It is generally known that some children, and occasionally adults, are subject to an involuntary discharge of urine, particularly at night. It arises from a debility of the urinary organs, occas-

ioned by drinking tea, coffee, ardent spirits, &c. It is a frequent attendant on paralytic disorder, which produce atony of the sphincter of the bladder; it may also be caused by acrid urine, stimulating the bladder to contract as soon as it has entered it, and also by irritation about the bladder and urethra.

Treatment.—Tone and energy must be bestowed to the parts, by tonics and astringents. The patient should daily use the cold hip-bath, and drink nothing but cold water; also cold cloths applied at the moment the urine passes involuntarily. The patient's diet should consist of boiled milk and wheat flour, with a little nutmeg and cinnamon sprinkled in it, &c. He must abstain from the use of tea, coffee, &c., and take as little liquid as possible before going to bed. Dr. Beache speaks very favorably of the following: Take wild-cherry-tree bark, hemlock bark, and bay-berry bark; bruise or pulverize, and add a sufficient quantity of water to make a strong tea or decoction, drank freely during the day; while taking this the patient may take the diuretic drops three times a day. Regulate the bowels by injections or by the anti-dyspeptic pills. Also, the diuretic pill (see Pharmacy) is an excellent remedy to give tone and energy to the parts.

WORMS. (VERMES.)—These are chiefly of four kinds, viz: the *Tœnia*, or Tape-Worm; the *Teres*, or long, round worm; the *Tricuris*, or long thread worm; and the *Ascarides*, or short, round worm. There are many other kinds of worms found in the human body, which cause similar symptoms, &c., it is not worth while to mention them. The tape-worm is white, very long, and full of joints. It is generally bred in either the stomach or small intestines. The long round worm is likewise bred in the small guts, and sometimes in the stomach. The short round worms commonly lodge about the rectum, and occasion a disagreeable itching about the seat. The long round worms occasion squemishness, vomiting, a disagreeable breath, gripes, looseness, swelling of the belly, swooning, loathing of food, and at other times a voracious appetite, a dry cough, convulsions, epileptic fits, and sometimes a privation of speech. These worms have been known to perforate the intestines, and get into the cavity of the belly. The effects of the tape-worm are nearly the same as those of the long round worm, but rather more violent.

Symptoms.—The belly being hard, tense and unnaturally large; disagreeable breath, especially in the morning before taking food; the tongue furred; a peculiar heaviness or bluish

appearance about the eyes ; swelling of the upper lip ; itching of the nose and seat ; pale, thin urine ; pulse sometimes hard, or weak and quick, but always unequal ; sour eructations ; the bowels irregular, either obstinate costive, or very relaxed ; appetite irregular ; emaciation ; griping pains ; a short, dry cough ; great thirst ; vomiting ; startings during sleep, and grinding of the teeth ; prolapsus ani, or falling of the bowel, &c. All the symptoms are here present, that are present in dyspepsia, and deranged liver, &c.

Causes.—A great cause is the way of living in our days ; for in a healthy alimentary canal, or in a healthy stomach and bowels, worms cannot live ; because nature will expel them. Oftentimes the patient or person may have these dyspeptic symptoms, and really have worms or none, and the worms that are at the time in the stomach and bowels, may be expelled by the efforts of nature ; and no more worms are there. Then the father or mother, or some other one will suspect that the patient's belly is full of worms ; will go and get a powerful worm medicine and administer it ; and by so doing reduce nature and cause more worms to exist there. Because this worm poison will destroy, and impair the functions of the stomach and bowels, and the system in general ; and in this way worms are caused where really none had existed. My friends, bear this in mind, for many a child's health is impaired by the administration of these confounded poisonous worm medicine. My customers often come to my office for worm medicines, and as a general rule I give them harmless medicines ; and then I think it my duty to explain the matter to them. Some are so wise as need no explanation, but want a confounded poison for the worms ; they of course being too ignorant to know that this so called worm poison is a creator of worms, instead of a reliever of worms. But the real indication and cure of worms is, a general course or treatment which will restore the morbid and impaired condition of these organs in which the worms are located.

Treatment.—Here the same treatment as in dyspepsia will prove serviceable. Some extra management is sometimes necessary to dislodge the intruders from their slimy beds. This can be best accomplished by copious injections of cold water occasionally ; and rigidly simple and unconcentrated food. A perfect "vermifuge" diet may be found in two articles : the crusts of good, sweet wheat meal bread, and good ripe, uncooked apples. It is important that most of the food be hard, so that it be well chewed and eaten slowly, so that the stomach be not overloaded. Dry toasted brown bread is also good, &c. All slops of food are objectionable. Those mothers who have pampered their little ones on fine sweet cake until it has

produced worms, may find it somewhat difficult to give them a coarse bread diet which will cure them. But, still they can do it, and should. Worms sometimes ascend into the throats of children and choke them. This symptom may readily be removed by giving a little salt and water, and repeating it occasionally will often expel them, and is always a preventive. When small worms infect the rectum, salt and water may be injected up the rectum, this will dislodge them. Cowhage is a harmless remedy to the patient, and will if any worms are present, penetrate them; this medicine acts mechanically upon the worm, by going through it, and destroying it in that way. Dose of the cowhage stripped from the pod, a teaspoonful to a child of two years old, and for an adult a tablespoonful, taken in molasses, and followed in two hours by our compound purgative of may-apple root, to expel the penetrated worms if there was any present. This has cured or passed off tape-worms, taken in the above dose three times a day; occasionally a purgative as above said, and in connexion with this, freely eat of garlic and common fine salt. At the same time the patient must live on a very spare diet, as said. This will give tone and energy to the stomach and bowels, and thereby expel all worms, without the injurious poisons introduced, which will cause worms. Where one is expelled by these powerful medicines, ten will be caused in its place. For Vermifuges, see Pharmacy.

BLEEDING AT THE NOSE. (EPISTAXIS.)—This takes place generally in youth, from unequal circulation and other causes. Seldom dangerous.

Treatment.—The indication is to balance or equalize the circulation, and in the application of cold water poured over the head. Common salt, finely pulverized and snuffed is an excellent remedy. Dr. Beache says, the means I have always found effectual is the powder grated from a perfectly dried smoked beef; it should be pushed up the nostrils as much as can be borne. I have seen this check the bleeding at the nose almost immediately.

BLOODY URINE. (HEMATURIA.)—This is generally symptomatic of some other diseases, as affections of the kidneys, bladder, &c.

Treatment.—The treatment of this disease consists in bringing about a healthy state of the kidneys and bladder. The Diuretic Drops, in doses of half a teaspoonful, may be given two or three times a day in water, &c.

OZÆNA.—The ozæna is an ulcer affecting the nostrils, and from which there is an acrid or corrosive discharge, very fetid, and often mixed with bloody slime.

Treatment.—Use the Cephalic Snuff. At the same time smoke the following: Black pepper, one teaspoonful; Sage, fine, a tablespoonful, mixed. Smoke two pipefuls a day, and force the smoke through the nostrils, as in catarrh in the head.

PART II.

SURGERY.

SURGERY is either medical, mechanical, or operative. According to the old school system, medical surgery comprehends the internal administration of drug-remedies, and the external application of lotions, liniments, poultices, plasters, &c. In the hydropathic system, medical surgery is limited to the internal and external employment of water of every temperature, from steam to ice, as the indication is to induce relaxation or excite contraction. Mechanical surgery is applied to the replacement of displaced parts. Operative surgery contemplates the removal of mechanical or chemical obstructions, and morbid structures.

CHAPTER I.

SURGICAL APPLIANCES.---It has been said "says Trall," that a good workman requires but few tools; a good doctor needs but few medicines, and a good surgeon requires but a very small part of the multitudinous instrumental machinery which the inventive genius and manufacturing interest of the ages have brought into use.

The common pocket-case of instruments, with tooth-forceps, ligatures, lint, adhesive plaster, sponge, bandages, male and female catheters, the stomach-pump, and the pump-syringe, are all that emergencies demand to be kept always in readiness. All the necessary mechanical, medical and chemical appliances are, the compress, ligature, sponge, adhesive plaster, lints and pledgets, dry-cupping, bandages, splints, caustics, sutures, torsion, the tourniquet, refrigeration, fomentations, emetics, anæsthesia, hæmatites, and transfusion.

THE COMPRESS.---This is employed to equalize pressure under a roller or bandage, or increase the pressure at a partic-

ular point. It is made of several folds of linen, formed into a kind of pad; various shapes and thicknesses of compresses are employed, to suit the particular locality and circumstances. For applying around a sore, the perforated compress is constructed with a hole in the centre to permit the escape of matter. In water-cure talk, a wet cloth is often called a compress; but in the strictly surgical sense, a compress is connected with the idea of compression.

THE LIGATURE.—Various kinds of strings or ligatures are employed to arrest the bleeding from wounded or divided blood-vessels, check the venous circulation so as to retard or prevent the absorption of poison, as in the case of bites of venomous animals, remove tumors, &c. Silk, linen, and animal membrane—cat-gut—are the materials in use. The latter is preferable, especially for tying bleeding arteries or veins, as both ends may be cut off close to the wound, and the rest left to decomposition and absorption. In applying the ligature to wounded vessels, the surgeon's knot—the first knot having two turns—must be tied, as this prevents the first knot from slipping while the second is being tied. The bleeding vessels should be gently raised with the forceps; and the ligature drawn as tightly as may be without cutting through the coats of the vessels. Silver wire is sometimes used in ligating poly-pus and other tumors.

THE SPONGE.—For surgical purposes the finest and softest article is the best. It is used to absorb the blood and other fluids from wounds and ulcers, and to support temporarily pro-lapsed parts, as the uterus.

ADHESIVE PLASTER.— This is employed to retain divided parts in proximity; to afford mechanical support to relaxed and distended vessels, as varicose veins; to excite absorption by compression, as in indolent ulcers, and protect abraded surfaces. In dressing wounds, it is applied in narrow strips, with interspaces for the discharge of matter. For small cuts or abrasions, the collodion is the most convenient article, and for very small wounds or sores the gummed-silk or court-plaster is sufficient. Where adhesive plaster is to be applied, the hair should be shaved off.

TENTS AND PLEDGETS.—These are round masses of prepared lint; best made by scraping the fine nap from old linen; or sponge, some sizes and forms of which are called meshes, rolls, and pledgets. They are employed to keep up a discharge from a fistulous or sinuous ulcer, so as to secure granulation from the bottom of the sore; to introduce caustics and irritants; to absorb or suck up matter, &c. Tampons are large tents, for making pressure or applying distention to arrest hemorrhage or bleeding. The sponge-lent is the most convenient when absorption or suction is desired; the common silk pocket handkerchief, are frequently employed in uterine hemorrhages or floodings of the womb.

DRY-CUPPING.—The application of any convenient vessel, as a common tumbler, or large mouth bottles, to the surface, in which a piece of cotton or paper is burned to produce a vacuum, is employed to diminish the circulation in the adjacent vessels, and to abstract the irritation of an inflamed part, on the principle of counter-irritation. This process is preferable to local bleeding—wet cupping—and generally relieves pain. But we need seldom regard it as hardly worth retaining for such purposes, for the reason that cold applications to the part, with warm, if need be, at a remote part, is a better resource in nearly if not quite all local inflammations. Dry-cupping is a valuable resource in reducing inguinal and femoral hernia, or rupture.

BANDAGES.—The most common use of bandages is to maintain the fragments or parts of broken bones in juxtaposition or being placed together, during the healing process; to give support to parts after recent dislocations; to promote circulation, and prevent accumulation in chronic swellings of the lower extremities, as in œdema, varices, old, deep, indolent ulcers, &c. The best are made of firm, smooth, unbleached linen cloth, torn into narrow strips, and sewed together by overlapping the ends so as to avoid a seam. The bandage must always be smoothly and evenly applied, and great care must be exercised to avoid drawing it tighter above, or toward the heart, than below, as congestion and swelling will result from obstructing the circulation of the blood. Application—If it is at the lower extremity, commence rolling at the extremity of the

great toe, and ascend or roll upwards, at the or around the angle where the depressions are, place compresses so as to preserve equal pressure, each layer overlaps the preceding two-thirds or more of its width, and the whole is applied smoothly from the toes to the knee.

SPLINTS.---These are employed in cases of fractures, and sometimes to correct deformities. They are made of thin fine or poplar, cedar or basswood boards: or better still, by saturating woolen cloth with gum shellac. They must, of course, be shaped to the part to which the soft sheepskin or buckskin is applied.

CAUSTICS.---The red-hot iron, called the actual cautery, is sometimes resorted to for the destruction of morbid parts: but more commonly some chemical substance, called the potential cautery, is employed. Caustic Potash is in general use as a strong, and the sequi-carbonate of potash or vegetable caustic as a mild caustic. Nitrate of silver; Lunar caustic; nitric acid, and sulphate of zinc, or white vitriol, are frequently employed. Preparations of antimony, arsenic, and mercury, are favorite eschorotics and caustics with allopathic practitioners, but they have already done mischief enough to entitle them to future oblivion or forgetfulness.

SUTURES.---Stitching divided parts together is much less practised now than formerly; superior skill in the management of bandages and adhesive straps have superseded, in a great measure, its necessity. Sutures are mostly employed to restrain the mobility of parts, and prevent permanent contraction of the muscles, in situations where straps and bandages cannot be well applied. The curved needle should always be passed from within the wound outward, and take up but little more than the skin. The twisted suture is as often used for the purpose of compression as for mere coaptation. The needle or pin is thrust through the lips of the wound, at right angles to its course, (or to that of the vein or other part to be compressed,) and left

there, penetrated through them. The thread is applied round under the point and head or eye, in successive coils or wound into rings, crossing each other over the middle in the form of a figure 8. The interrupted suture is made by passing the threaded needle through the edges of the wound, at short distances, and then removing the needle and tying the thread. In the dry suture the needle is passed through strong bands of adhesive plaster, which are placed above and below the wound.

TORSION.---This process is twisting instead of tying the ends of bleeding vessels with a pair of forceps. It stops the bleeding of small arteries, and is so far a substitute for tying.

THE TOURNIQUET.---This instrument is a form of ligature, and is calculated to compress large and deep-seated arteries in amputations and other pressing necessities. The pad or compress is applied directly upon the artery above the injury or operation, and pressed upon the vessel until the pulsation of the artery beyond is suppressed, by turning the screw. A good substitute for the common tourniquet may be made in a moment in various ways. A handkerchief, tied twice around the limb, may be twisted with a stick until the pressure stops the current of blood in the artery against which the knot is applied.

CONGELATION, OR THE ACT OF FREEZING.---In deep-seated chronic inflammations, especially around the joints, absolutely freezing the part, by means of pounded ice or refrigerating mixtures, has been attended with the happiest consequences; the application should never be continued but for a few minutes at a time. It is also, one of our best means for restraining hemorrhage or bleeding. Severe cold has been employed with the best and happiest effects to remove the sensibility, preparatory to surgical operations; and the testimony is unanimous that, in every "instance the wound has appeared to heal more speedily than under the usual circumstances." Dr. Arnott "remarks Dr. Hall," has used frigorific mixtures

as anæsthetic agents in nearly two hundred cases without any injurious consequences; and he reports that foul ulcers are often changed to healthy ones by their action. This is correct, for my own experience has proved it so. A piece of ice dipped in salt, and applied to the part, produces congelation in about half a minute. Pieces of ice mixed with common salt and nitrate of ammonia, make a still stronger frigorific. It should never be applied to a very large surface at once.

FOMENTATIONS.---These are intended to abate morbid sensibility, and relax the whole or part of the muscular system, to overcome spasms, and facilitate the replacement of laxated joints, fractured bones, ruptures, &c. All the muscular relaxation which regular surgeons endeavor to produce by profuse blood-letting and deathly nauseants, can be readily and harmlessly produced by internal and external use of warm water.

EMETICS.---In many cases of rigid muscular contraction, to facilitate the reduction of a dislocation or the replacement of the fragments of fractured bones, powerful and injurious doses of tobacco or tartar emetic are administered to induce relaxation; or the patient is kept for a long time in a state of excessive nausea. Warm water, taken copiously into the stomach, assisted by tickling the throat with a few soft quills, (the quills may be introduced from three to eight inches with great advantage, these are always very efficacious, if water is given as an emetic,) these measures will answer all the purposes for which so many deathful drugs are employed, particularly if conjoined with external fomentations, or the warm or vapor bath.

ANÆSTHESIA.---Chloroform and ether are just now in common use to produce insensibility, and thus obviate the pain attending surgical operations. Some administer it in parturition or confined women, but this ought to be abandoned, for there is always danger in ordinary cases of this kind. But, when an operation must be performed that is very dangerous,

painful or protracted, the employment of anæsthetic agents is certainly advisable ; although we have accounts of a good many deaths occurring from their direct effects, since their introduction into the profession ; nevertheless I suspect that the greater part of those deaths were attributable to a want of proper precautions, or rather an ignorance of the proper precautions on the part of the operator. The same rules should be observed in administering chloroform or ether, as are enjoined by hydropaths in administering a full-bath. The stomach should be empty ; the patient in his ordinarily quiet or composed state ; that is, without rush of blood to the head, or determination to the brain ; the extremities must be warm, and a general glow upon the surface, &c. The ether is the safer article, but the chloroform is the most powerful, but, still there is no danger in chloroform if properly made use of. The patient's pulse must be watched, and if it produces any bad effects, apply the spirits of ammonia (Aqua Ammonia) to the nostrils, this immediately destroys the effects of the chloroform.

HÆMASTASIS.---This process has been employed in the treatment of local congestion and inflammation ; but we have, in water of various temperatures, an ample and a better resource. It is a valuable expedient, however, in some cases of sudden and alarming hemorrhage or bleeding, as it enables us to retain a greater proportion of blood within the body, and also to lessen its violence at the bleeding point, thereby favoring the formation of a clot or coagulum. Dry-cupping an entire limb, for which purpose elongated cylinders of flexible material have been invented, is one method of holding back its blood. A common ligature round the limbs are just as efficacious ; the simple ligature is applied by tying a pocket handkerchief or any suitable cord around the upper arms, or thighs, and tighten it by an inserted stick sufficient to check the venous blood, but admit the passage of the arterial blood, you will in a short time have the blood-vessels of the limb very greatly distended. Four ligatures applied in this manner to the arms and thighs, will in a few minutes destroy the balance of the circulation, and remove from the trunk from one-third to one-half of its usual supply of blood ; an amount of reduction which the most noble or heroic practitioner dare not attempt by the lancet. If your subject be in a debilitated or weakened condition, he will in a few moments faint, and remain in suspended animation until the ligatures are removed, or loosened, which should be promptly done. You will also greatly increase the facility and success of hæmastasis, by the application of warmth and moisture to the hands and feet, which may be immersed in warm water.

TRANSFUSION.---In some cases of excessive loss of blood, life has been preserved by opening the vein of a healthy person, or of a sheep, and transferring the blood immediately into the vein of the bleeding patient, a suitable vessel or funnel being connected with the latter for the purpose of receiving it.

CHAPTER II.

WOUNDS.

Distinctions of Wounds.---The most general division is into simple and complicated. A simple wound is a mere division of a particular part under the necessary conditions for healthy restoration. Any departure from this definition, either as to extent of injury or amount of vital reaction, constitutes a complicated wound. Five or six classes of wounds require separate consideration: the incised; the punctured and penetrating (distinguished by their depth); the contused and lacerated, (often connected); those occasioned in any way by explosion of gun-powder, and called for convenience "gun-shot wounds;" and lastly those that, besides the mechanical injury, are the means of introducing into the body some poisonous substance.

1st. An Incised Wound is, in plainer English, "a cut," precisely defined as a "solution of continuity by a sharp cutting instrument." A scrofulous or syphilitic taint makes it complicated, no less than a bruising in addition to the cutting. A simple incised wound is always one that heals, or might heal, by the first intention: whatever prevents it, is a complication.

2nd. A Punctured or Penetrating Wound is one made by a sharp pointed instrument, thrust to a greater or less extent below the surface. A needle "punctures," a bayonet "penetrates;" perhaps into the great cavities, on which circumstance a distinction is, by some, made to depend. These wounds are not apt to heal by the first intention: hence more or less suppuration.

3rd. A Contused Wound is inflicted by some blunt instrument, that injures the parts below without any breach of the surface.

4th. A Lacerated Wound, on the other hand is generally occasioned by a rough as well as blunt instrument, tearing the integuments.

5th. Gun-shot Wounds require no definition, except to repeat that they are made to include all injuries occasioned by the ex-

plosive force of gun-powder. Scorching by powder belongs of course, to the subject of "burns."

6th. Poisoned Wounds are inflicted by some instrument that inserts a virus into the wound it makes. The bite of a rabid dog, some kinds of snakes and stings of various insects, are familiar examples. Commonly the wound itself is trifling: the poisoning of it makes all its importance.

General Consequences of Wounds.—Bleeding is the only alarming symptom in incised wounds, which can generally be healed by the "first intention," that is without suppuration. All other varieties are attended, save when very large arteries are torn, with but little bleeding or hemorrhage, but always suppurate more or less.

In gun-shot wounds, the concussion of the air impelled by the ball often inflicts severe injury, without making any mark upon the skin. In most wounds there is more or less extravasation, or an infiltration of blood into the cellular membrane. The pain is generally less dangerous if great, than if less, for the reason that the more destructive the injury, the less power has nature to give the alarm. The danger of wounds, and other circumstances being equal, depends on the actual health, or physiological state of the system at the time the wound is received. The most trifling scratch, or the simplest cut, has been followed by bad sores, loss of limb, and even life, in persons of extremely morbid blood, foul secretions, and reduced vitality; while those of sound, pure bodies, recover from the most complicated injuries with comparatively little difficulty. Topers, &c., are notoriously liable to extreme inflammation, foul ulcers, mortification, &c., from injuries which water-drinkers might regard less than trifles.

TREATMENT OF WOUNDS.—The first point, in all cases, is to control the hemorrhage or bleeding. Arterial bleeding, which is always far the most dangerous, may be known by the the bright scarlet color of the blood, and its coming out in jets. "It may be stated as a general rule, probably an invariable one, that all hemorrhage from blood-vessels below the waist and ankle, can be arrested without ligaturing the arteries. The injured part should be freely exposed to the cold air, and washed in the coldest water. In many cases the bleeding from small vessels is kept up by the dressing; covering the wound with compresses, lint, &c., which keep up the heat, and prevent the formation of a coagulum." (TRALL).

We have three means for effecting the object of bleeding;

compression, styptics, and the ligature. If no large arteries or veins have been cut, a lint compress and bandage will be sufficient. If this fails, styptics may be used, such as pulverized galls, lint steeped in the tincture of the same article, or in a solution of alum, or strong decoction of white oak bark, or (what is better than either of these articles) I would recommend to scrape off and use the fleshy side of a piece of spongy oak-tanned sole-leather. This presents a very soft unirritating surface, while it is strongly astringent, and may be strengthened in that respect, by wetting it in any styptic liquid. It may be pressed firmly into the wound so as to give the additional advantage of compression. If these means fail, the blood vessel must be ligated.

When an artery has to be tied, it should be done at the wound, if it can be reached by the forceps. Dangerous hemorrhage from any large arteries must, of course, be first guarded against by the tourniquet, or some other mode of applying pressure. If the bleeding is from the lower extremity, compress the femoral artery just below Poupart's ligament; if from the upper, restrain the brachial artery in like manner, some where above the middle of the arm, if the wound be below this point. There is some choice in ligatures. The best is made of animal membrane. Whatever substance is used, it should not be so thin as to cut through the coats of the arteries, on being tightened. If silk or linen is used, one end should be left hanging out of the wound, the other cut off close to the knot. Learn to tie the "surgeon's knot;" one that won't slip, as before remarked.

When ligatures of animal fibre are used, both ends may be cut off close and the wound allowed to heal by the first intention; the ligature being absorbed after having done its office. In taking up arteries, great care must be taken, never to tie up a nerve with them. Important nerves frequently accompany arteries, and are attached to the same sheath. In such cases they must be carefully separated. Neuritis, Neuralgia, or fatal tetanus, may be the consequence of this neglecting precaution. After securing the artery, and suppressed the hemorrhage, bring the parietes of the wound together, and secure them as nearly as possible in their original position by adhesive strips, collodion, or suture. Avoid sutures if possible. After this, nothing but cold water dressings is generally required, (see Introduction); the patient should have a nourishing diet; highly seasoned food must be avoided *under all circumstances*.

INCISED WOUNDS—Are those which are healed by first intention.

PUNCTURED WOUNDS—When slight, do not commonly give the patient much inconvenience, although the pricking of a needle may bring on tetanus; if the patient's physiological functions are in a morbid state. Any puncture through tendons, nerves or fasciæ, may produce excessive pain and distress. Swellings of the lymphatics is a frequent consequent of punctured wounds. When the injury is in the foot, for instance, we may have buboes; or swelling of the sub-maxillary glands, from a punctured finger. In treating these wounds, as all others, the bleeding, if any, must be first attended to. Next, the extraction of any foreign matter that may have been thrust and left in. If there be any poisonous substance introduced by the instrument, or otherwise, such fluids should be injected as will, if possible, neutralize it, and cleanse out the wound. The lips of these wounds should be kept apart, as there is always a liability to their uniting, while suppuration is going on actively within. If the matter is not allowed a free exit, it will spread and aggravate the injury. If the parts are so lacerated so as to produce any insensibility, or a partial loss of vitality, it may be necessary to use stimulants, such as brandy and warm water; but as a general rule, cool applications are sufficient. Never allow the outside to heal before the inside.

LACERATED WOUNDS—Differ from incised, being generally unaccompanied with hemorrhage. Large arteries may be ruptured without bleeding. The only danger in this wound is that of "secondary hemorrhage."

The constitutional effects are often very great. Chills, spasms, and tetanus, frequently occur.

These wounds must heal by granulation, and therefore, it is not so important that the parts be in perfect apposition. If there is, as there probably will be in all extensive injuries of this kind, a great deal of irritability, apply an emollient poultice (the common Slippery Elm, wet in some anodyne decoction, as hops, &c.) I have "says Dr. Hill," found the expressed juice of Lobelia one of the safest and most certain means of allaying irritability, and other unfavorable constitutional symptoms. The sudorific tincture (see Pharmacy) may be used with lint or cotton, or the coldest water dressings. A general cooling course of treatment must be pursued. As a mild and cooling Physic (say the compound powder of May-apple-root, with a little cream of tartar added); mild diaphoretics should be given as catnep with our diaphoretic powders. Also, warm foot-bath, and the wet-sheet pack warm, or alcoholic vapor-bath, followed

by the alkaline hand-bath, with the general course laid down in the preceding part of this work, for inflammations, &c. Always if there is inflammation apply the cold wet compress or fomentations hot (as hops, elecampane, stramonium, and lobelia); and followed by the cold compress. If during the treatment any proud flesh should appear, it may be kept down by the mild vegetable caustic, or unslacked lime sprinkled over the parts; the latter has an excellent effect; should these means not be strong enough, use the caustic potash. Great precautions must be had to the necessity of guarding against secondary bleedings, or hemorrhage. Although the wound may be at a considerable distance from any large artery, and there may have been very little bleeding in the first instance, yet we never know to what extent the injury may have gone. Deep seated arteries may inflame, sloughs take place, and dangerous hemorrhage set in, weeks after the original injury.

CONTUSED WOUNDS.—These wounds are more tedious than any other. In many cases, there is great suffering, though but little injury. There may, on the other hand, be no pain at all when the case is serious: in fact, the more extensive and severe the contusion, the less the pain. The only danger is of extensive inflammation, with mortification, sloughing, hectic fever, &c. The great aim in treatment is to prevent those results by emollients, and general measures laid down. The patient should be sustained by a nourishing diet and tonics. Here the Tonic Tincture (see Pharmacy) is very well calculated for. If there be extensive extravasation of blood, forming a tumor, it may be let out by puncture. In all other respects the treatment for contused, is the same as directed for lacerated wounds. With the warm wet-sheet-pack aided by diaphoretic teas, to promote sweating, at the same time cold applications to the wound, and hot bricks to the feet, &c. A most valuable remedy however, is the tincture of Arnica, diluted and applied to cause a little smarting.

GUN SHOT WOUNDS.—The orifice of these wounds is no guide to the course of the ball. For example: a bullet may strike the middle of the forehead, and emerge from the occiput just as if it had passed through the centre of the brain, yet the

patient be almost uninjured, the ball having simply whirled round the skull under the integuments. Injury done to nerves is apt to occasion tetanus, sometimes even after the wound has healed. Primary hemorrhage is rare; the secondary more dangerous. Diagnosis and prognosis must therefore be regarded as difficult.

The union, it should be noticed, must always take place by granulation. In your examination use your finger as far as possible. Remove the ball, shot, clothes, or any other substance it may have introduced. If however the ball be so situated as to be got hold of with difficulty, and do not interfere with recovery, let it alone. Many persons carry shot in their flesh without any inconvenience. If it is near the surface and cannot be removed by the way of the wound, it is better to cut through to it than to dilate the original wound. After cleansing, proceed as with the punctured wound.

POISONED WOUNDS.—Of these the most familiar are the bites and stings of insects and reptiles. A raw onion cut in two and applied to the sting of wasps and bees will generally relieve the pain and prevent inflammation and swelling. The onion is to be changed every fifteen or twenty minutes. Also, the application of very cold cloths will be sufficient, &c.

Scorpion bites or stings, are cured by Olive or Sweet Oil, kept in a bottle in which a Scorpion is kept; this must be immediately taken in doses of an ounce, and applied with or without a scorpion in it. The only dangerous reptiles we have in this country, are the copper-head, and rattle snakes. The effects of their bites are so much alike as need but one treatment. The person bitten feels a smarting pain at the wound, extending up the limb, which swells, and in the case of the rattle snake, turns spotted. Nausea soon comes on, with dizziness in the head. The swelling continues, extending to the other limbs, and sometimes over the whole body. The patient often becomes delirious.

A course of treatment which has proved successful in all cases where I have known it to be tried, is to make the patient drink freely of a strong decoction, in milk, of common plantain and horehound, and apply a poultice of the same articles to the wound. Speedy and permanent relief follows. It is best, however, to continue the prescription, in smaller quantities, for several days, when a complete cure may be relied on. (HILL).

This answers in brute, as well as in the human being. The successful administration of sweet oil (in doses of an ounce) was

mentioned when speaking of the scorpion. Also, whiskey applied externally and internally in quantities unlimited and almost incredible, are used leaving no bad effect. A half a gallon of whisky has been given to small children, without producing intoxication.

CHAPTER III.

INJURIES LOCALLY CONSIDERED.

CONCUSSION & COMPRESSION OF THE BRAIN.—

A stunning, or concussion of the brain, is the result of blows upon the head, or of falls. A sudden and violent blow on the head, whether organic injury be occasioned or not, generally stuns the person. In severer cases, the patient is found in a state of entire insensibility, even the functions of respiration being for a while suspended. This returns, and with it a gradual restoration of the senses. The mind, however, is still for some time wandering. After a time, he moves his limbs, as if in an uneasy sleep, and vomits, and frequently recovers his senses instantly afterward; remaining, however, giddy, confused and sleepy, for some hours. In the more severe degree the patient is profoundly insensible, the surface pale and cold, the features ghastly, the pulse feeble and intermittent, or perhaps insensible, and the breathing slow, or drawn at intervals. Vomiting is an important symptom. It is not present in very slight cases, nor in very severe ones, and its occurrence is mostly an indication of approaching recovery. Stunning has no necessary connexion with compression, contusion, extravasation, or any other permanent injury.

It is not essential that you should be able to decide at once whether it is a case of simple concussion. If it is, the patient will "come to;" if it is anything more, either the fact is obvious, with its external cause, or there must be time for a partial recovery before it can be ascertained by its effects.— Superficial examination can never be conclusive. The internal plate may be pushed in, while the outer is still sound and in place. You have no right to trephine on a mere suspicion that such may be the case.

The early treatment is the same, whether you have afterward to operate or not. Stimulating applications are advisable to different parts of the surface, the lower extremities particularly. And cold cloths and also the pouring head-bath must

be applied to the head. Also, stimulating injections must be used, if the patient is not yet roused up, with warm foot-bath, and stimulants to the feet and along the spine. Say for injections use the following: Lobelia tincture one pint, and cayenne-pepper, one half a drachm. As soon as the patient is sufficiently restored, if there be symptoms of violent reaction upon the brain, give an active stimulating cathartic, or (injection) as the Anti-Bilious Physic combined with eight or ten grains of eapsicum or prickly ash is better. When a portion of the skull or cranium is depressed it must be raised by a lever; or if this is impracticable, the operation of trephining will become necessary. The head should in all cases be kept thoroughly cooled with wet cloths or the pouring-bath, and derivative treatment, especially tepid, hip and hot foot-baths should be frequently employed, caution being taken to secure prompt reaction. In young persons very bad fractures of the cranial bones will often replace themselves if the general health is well attended to.

BRUISES.—These are only worth naming for the purpose of mentioning that the cold douche, and the wet compress, are worth more than all the stimulating liniments and embrocations in the world, in their treatment.

SPRAINS.—These accidents usually happen to the smaller joints, as the wrist, fingers, ankle, and toes; they are generally very painful, and are very liable to be followed by painful and protracted inflammation. The part should be held in cold water, or the cold stream applied to it until the violence of the pain abates, and then wrapped in wet compresses until all inflammatory excitement is passed.

BURNS AND SCALDS.—Burns are produced by the action of concentrated heat upon the living tissue. Scalds are produced by the application of a boiling or hot fluid. The danger of these injuries is usually measured by the extent of surface

destroyed. Authors make three, four, five, and sometimes six degrees of burns; but the smallest number is sufficient for all practical purposes. The first is redness; the second, vesication, or blistering; and the third, disorganization, in which the skin is destroyed, and perhaps some structures beneath the skin. The pain is usually the severest in the second variety.

Treatment of Burns and Scalds.—Immediately apply a poultice of the finely powdered Slippery Elm Bark, mixed with warm water or milk; in small burns or scalds cold water may answer better with the flour of elm than warm, but if the scalding has produced or threatened constitutional depression, or if the burn has penetrated deep, and occasioned ulceration, make your poultice with warm water, or, still better, warm milk and water. The later, as well as the earlier stages, are equally well suited for the slippery elm. Always bear in mind, that burns and scalds, in any, and all stages, must be shielded from the atmosphere. When the elm bark is moistened, it is entirely impenetrable to the air, and not liable either to dry and harden like so many mere pastes, (it can always be kept moistened, by adding water or other fluid, if necessary); the poultice should never be suffered to get dry, on the parts, &c. A further advantage is, that when not too, wet, when made large and thick as occasion requires, it will absorb any fluid that may be discharged. Finally, when it is to be removed, you have only to soften it still more and wash it away.

After acute symptoms have subsided, simple dressings are generally all that is necessary for the ulceration. The black salve, will shield the part from the air, and be sufficient in all ordinary or healthy cases. But, if fungus or proud flesh appear, the powdered Blood-root, sprinkled over it, will generally be sufficient, or the unslacked lime may be used. If there be much hardness of the parts, they may be fomented with leaves of common mullein, moistened in warm vinegar, and after allowing them to cool, apply them in the form of a poultice. In some instances, active stimulants are necessary after the subsidence of acute inflammation. In such cases, the following linament may be used with great benefit: Take spirits of camphor, half a ounce; tincture of cayenne pepper, one drachm; Olive oil, two ounces.

This preparation should be applied once or twice a day; at first it produces considerable smarting, but, the parts soon become easy and heal. Cold water is also very excellent in burns and scalds; if the part can be kept in the water for some length of time, it will be a permanent cure, in ordinary cases. Constitutional symptoms must be watched, and treated on general principles laid down in this work. For a specific (see Pharmacy) called "Fire Extractor."

PARTICULAR WOUNDS AND INJURIES.—Wounds of the scalp are liable to be followed by erysipelatous inflammation; the hair must be shorn, and the divided parts brought in proximity by adhesive straps, and sutures when necessary. Cold water dressings are all necessary.

WOUNDS OF THE CHEST—Are apt to penetrate the substance of the lungs, in which case air and blood together will bubble out of the wound, and the patient will manifest short breath and bloody expectoration. The wound should be covered with a plaster, and cooling baths—half and hip—employed.

WOUNDS OF THE ABDOMEN—Are among the most dangerous. When the intestines are wounded, the patient is affected with nausea and vomiting, and the matter dejected will be bloody. When a portion of intestine or bowel protrudes, it must be replaced as soon as possible; if it has been protruded for forty-eight hours it will be impossible to replace it, for adhesion may have taken place. The only chance then is to leave it open, as an artificial anus.

When the protruded bowel is distended with gases or fœces, by which its return is hindered, these may be pressed forward into a portion of intestine within the abdominal cavity; or, if this fails, the wound must be dilated. These wounds when large, may require the suture; a fine needle and thread only should be used.

For several days after severe injuries of the bowels, or lungs, the patient should eat very little or nothing, and the bowels be moved, when necessary, by warm water injections. Every thing he takes should be of very easy digestion; solids are better avoided altogether. Stimulants of all kinds must be condemned.

WOUNDS OF THE JOINTS.—Injuries of the joints are almost as dangerous as any in surgical practice. The danger consists as usual in severe inflammation (which it is much safer preventing than trusting to cure,) terminating in adhesions and

anchylosis, or stiff-joint. The limb should be placed in the easiest position that will bring the lips of the wound together, and be kept there, perfectly still, so as to avoid the necessity for suture. Adhesive straps will be sufficient, if this point be attended to; but the patient must positively learn what we mean by "rest;" must not be allowed for several days to move the affected parts at all. Cold water dressings are the most leading principles.

If the knee joint is concerned, you should keep the limb, extended, that your patient, in the event of anchylosis, or stiff-knee, may still be able to walk, though with a stiff leg. The arm on the contrary, when it is the elbow that is affected had better be secured in a half-flexed position. The danger in question results mainly from adhesion between the synovial membranes, on losing their contained fluid.

The joint should not be kept too long motionless. As the wound improves, it should be gently exercised.

Treat the case in all other respects as you would a similar wound in other parts. The simple cold water dressing, secured from the atmosphere, by a slippery elm poultice, (mix with cold water the elm bark) is one of the best preventives of inflammation. When there is symptomatic fever, administer a mild physic, or injection: but, in many cases, however, (the first few days) the necessary motion may be productive of more injury to the limb than would be produced by the physic, or injection. *Diet* of course must be light and unstimulating.

If inflammation should have set in actively before you are called, or should supervene during treatment, purging is then necessary, also nauseants; sometimes vomiting to free extent is a valuable auxiliary, if tetanus or locked-jaw is threatened. Also the alcoholic vapor-bath here is of very great value to reduce, or prevent inflammation, &c.

Synovitis, or a chronic inflammation of the synovial membrane, and to some extent of other structures of the joint, and is produced by some external injury. I have seen says Dr. Trall, "several cases affecting the knee-joint, produced most unquestionably, by wearing strapped pantaloons."

Synovitis or inflammation of the synovial membranes, is known by a sense of weakness or lameness in the affected joint, always increased by any considerable motion, and frequently amounting to pain when the exercise is prolonged. There is usually none, or but slight, external redness, swelling, or heat. This affection requires a long time to cure; the treatment consists of a very strict diet, one or two general baths daily, with the constant application of local compresses, &c.

When the knee-joint is the seat of the disease, the cold leg-bath must be employed for half an hour once or twice daily, and occasional wet sheet packs, &c.

CHAPTER IV.

TUMORS.

EVERY tumor is a morbid swelling or a new formation, an increased or perverted development of organic substance. The common causes are injuries, as pressure, blows, bruises, &c. They may also arise from capillary obstruction, and this is induced by many of the unhealthful eating, drinking, and anti-bathing habits of society.

A common induration; resulting from phlegmon, possesses a peculiar structure, which, however, is not permanent; but, being gradually absorbed, gives place to the natural conformation of the parts. But in some instances, even of common inflammation, neither resolution nor suppuration takes place. The inflammation ceases, but the swelling remains; the "tumor" has become a "tumor." After this the action going on in the part is neither inflammatory nor healthy; it is a peculiar increased or perverted development of the organism.

Tumors are distinguished into adipose or fatty, cellular, fibrous, cartilaginous, osseous, encysted, fungus, indurated, scrofulous, malignant, pulsating, vascular, &c., according to the structure affected, and the form, character, and consistence of the swelling.

ADIPOSE, OR FATTY TUMORS—May be occasioned by a rupture of the vessels of a part from any mechanical cause, or by a change in the nutrition of the part brought on by previous inflammation.

Treatment of these Tumors.—Promoting absorption by continued compression, and strong stimulants will often answer the purpose to cure them. However, if this does not prove successful other means may be made use of. Also proper constitutional means must be made use of, internally the alterative

syrup, and Hydrogogue, cathartics or physics, as the Anti-Bilious Physic. Also, an occasional emetic would prove beneficial. Externally the wet sheet pack, with daily bathing, &c. The irritating plaster is highly recommended in such cases, by the Eclectics of Cincinnati.

If, then, after a fair trial of the local and general means pointed out, you fail, as you may expect to do in many instances, and the tumor, is so situated as to be conveniently operated upon, the knife is generally the best means you can resort to.

Tumors can, however, in some cases be removed by the ligature or caustic potash. The latter must be applied so as effectually to destroy every portion of the disorganized mass, and cause it to slough off. The ligature may be fastened around the base of the tumor, and then fastening it to a short piece of metal or wood, and daily drawing it tighter to stop the circulation. Tumors of great magnitude may be taken off in this manner; and there is an advantage in removing them in this way, in consequence of no hemorrhage attending the operation. Besides the patient has less dread of it than of excision by the knife.

FIBROUS TUMORS—Are composed of capsules of greater or less density, inclosing yellow or whitish substances divided into lobes or septa by cellular substance; their shape is irregular and they have a doughy consistence. They are not painful, and are easily removed by the ligature or knife, being almost always situated in accessible places. The fibrinous contents of these tumors adhere so loosely to their capsules that they can readily be removed by the finger or forceps on making an incision through the skin. If there has been inflammation excited, it may be necessary to dissect it out. There may also be adhesions to vessels so large as to require them to be taken up and tied. Another precaution to be observed in the cure of these vascular adhesions, if there be also any appearance of present morbid action, is not to permit healing by the first intention, but keep it open and excite healthy supuration, and treat it in other respects as you would a case of cancer.

But when the surgeon is consulted early, before any adhesions have occurred, or any degeneration in the action of the part, and the patient is willing, these tumors may be cut out without any hesitation, and heal by first intention.

CELLULAR TUMORS.—These tumors are smooth and compact, without the indurated appearance of schirrus. Nor

have they any cartilaginous or membranous septa, like cancer and the fibrous tumor. They are never painful unless they become inflamed, or from their weight and pressure upon the surrounding parts affecting the nerves. The cutaneous veins involved in the tumor sometimes become varicose, and the skin over its whole surface may be destroyed. There is, however, no tendency to fungus growths; nor much susceptibility to suppuration or ulceration. When abrasion takes place it is more apt to slough away. In this way it is often, when small, spontaneously or accidentally cured. But when tumor is large the slough is a long offensive sore. This is accompanied also with great constitutional irritation and injury. It becomes, in fact, as dangerous as true cancer. In its original character, however, this tumor has nothing malignant about it: it is as free from danger, as it is easy to manage. Even after inflammation and sloughing, it is much more easily eradicated than any cancerous tumor.

In the treatment of these cases, like the former, you may sometimes succeed by promoting absorption by such means as were before recommended. If these means fail, or if the tumor is already very large, recourse must be had to the knife, caustic or ligature. If called before any inflammation has occurred, and there appears to be no disease in surrounding parts, excision will be the best of all treatment.

But after sloughing has commenced, even if the knife be available at all, it should not be relied upon alone. In such a case, remove as much as possible of the morbid growth, by the knife or the caustic potash, and then apply means to promote suppuration, (as a poultice of slippery elm and yeast) and bring it to heal by healthy granulation. The constitution must also be sustained, by proper diet and medicine, &c. And, above all, suitable application made to the general surface, while the proper dressings are restoring to local health. For the latter purpose, it will commonly be sufficient to wash the surface of the sore two or three times a day with a strong solution of the mild caustic, keeping the part covered with a poultice that will absorb the pus as fast as it is produced.

Other varieties, and other divisions of tumors, are presented in the books, but the division into the three classes mentioned, comprehends all the forms of non-malignant tumor, and appears as good that is, as practically useful as any.

"Encysted tumors" might be instanced. They are distinguished as consisting of a sac, containing a thin fluid, which is not pus. The definition evidently corresponds to the description of cellular tumors above given. Strictly fatty encysted tumors are sometimes called "steatourous;" those embracing honey-like matter, melicerous and those having a pap like-fluid, different from either of the others, "ætheromatous."

What might seem the most important practical division, is into those which are, and are not, *Malignant Tumors*. It should be remembered, however, that almost any tumor or sore may become malignant. Thus, the fibrous tumor, above spoken of, as well as the cellular, may become a tumor or sore as "dangerous and difficult" to manage, by ordinary means as any schirrus of open cancer. Those forms known to be malignant, I shall speak of as varieties of cancer.

Among these, may be named the tuberculated (a mass of small, hard, rounded tumors), and the medullary sarcoma, or fungus hæmatodes. Under this head, however, the *Vascular Tumor* may be distinguished.

This is sometimes called Aneurism by Anastomosis. It is, in fact, a complete net-work of vessels. When the tumor is fully developed, it is wholly composed of vessels, a sort of placental formation. When the vascular tumor forms just beneath the skin, or in the integuments, it can be readily distinguished, by the external appearance. But when it occurs beneath the fasciæ, the external appearance is no guide, and the diagnosis is very obscure for a long time. There will be some degree of tension and swelling, with a sensation of throbbing and pain. It may be noticed, however, that the tumor will vary in size, according to the tension or relaxation of the neighboring muscles, and according to the degree of excitement in the whole vascular system. Whenever we discover a swelling to have these peculiarities, we should be on our guard as to any treatment that may be adopted. Wounds, or incisions, into such tumors, are very troublesome, as it is almost impossible to suppress the hemorrhage or bleeding. No attempt at an operation should be made, unless the tumor be so situated that every portion of the mass can be at once removed.

The proper treatment then will be stimulus and compression. Repeated puncturing the part with hot needles, and the repeated applications of caustic potash, a small part of the surface only being touched at once, with constant but moderate compression, (and good constitutional measures, to promote absorption), have one to succeed when removing the other.

TUMORS ON THE TENDONS OR LIGAMENTS, OR "GANGLION."—These are encysted tumors, and form in the fasciæ near the tendons and joints, usually on the wrist, hand, and top of the foot. The fluid it contains is like the white of eggs, and varying in size from a pea to that of an egg. The probable cause is some mechanical injury, which occasions a

slight rupture in the sheath of the muscles, or the synovial membrane; in consequence of which the secretion of the synovial fluid itself, escapes, and occasions the formation of the membrane sac or cyst, in which the fluid is retained, and continues to accumulate. As the fluid accumulates, its new membranous investment constantly enlarges, producing first, stiffness in the adjacent joint, then emaciation of the muscles, contraction of the tendons, and sooner or later, a total loss of the use of the joint. If the ganglion is allowed to follow its own course, an opening is at last formed, from which a sanious fluid exudes, and a very malignant ulcer is sometimes the consequence. The best course of treatment indicated, is such as is calculated to promote absorption of the fluid, and adhesion of the surrounding tissues, so as to prevent re-accumulation.

To accomplish the former of these two objects, strong stimulants must be applied, with firm compression by means of a bandage. But still in more severe cases, let the surface over the tumor be cupped and freely scarified; and an Irritating Plaster then applied, to set up suppuration. Keep up this action in the part for several weeks. Then discontinue the irritating application, and re-apply compression and strong stimulants, as before, with the addition of astringents (for this purpose the Tincture of Gum Myrrh is very excellent, as it is stimulant and astringent). It may require weeks and in some instances months, to complete a cure.

TUMORS ON BONES, OR EXOSTOSIS.—All tumors formed upon the bones in a healthy condition, are included under this tumor. These tumors are of various forms and densities, differing in their structural arrangement. They may be solid, dense and smooth as ivory, cellular and smooth on their external surface also, or rough and jagged, what is called “tuberculous.” Professor Gibson divides them into four classes:—

1st. The circumscribed, which is the most common kind,—smooth, seldom painful, and rarely becoming very large.

2nd. The lamellated, consisting of numerous plates laid over each other, and often piled up in irregular masses.

3rd. The tuberculated, consisting of knobs or irregular excrescences, either closely connected or insulated.

4th. The spinous, having slender processes terminating in points or knobs.

These tumors are most frequently found upon the extremities the humerus and femur being oftener affected than other bones. Bone tumors grow from the periosteum, or from the external surface of the bone, under cover of the periosteum.

The treatment will consist of such means as promotes the activity of absorption without inducing debility. Strict attention must be paid to the general surface. The wet sheet-pack, followed by the alkaline-bath, &c. Stimulants and compression must be made use of, like in the "Ganglionic Tumor." Also, a brisk purgative must be made use of, once or twice a week, with alteratives, and vegetable diet. Drinking half a pint of pure cold water every morning on rising from bed, is a most excellent remedy in all cases, where an alterative and diluent course is necessary.

POLYPUS.—A polypus is a fleshy exerescence, of various density and color, originating from the lining membrane of a canal or cavity, as the nose, vagina, rectum, &c. The common polypus is pendulous, and hangs by a small pedicle.

POLYPUS OF THE NOSE.—This is moveable within the nose; its size is influenced by the state of the weather, the protrusion being greatest when hazy and damp; it is of the natural color of the skin, or of a faint red, in some degree transparent and free from pain; it sometimes projects from the anterior, at other times from the posterior, aperture into the nose.—Frequently it ulcerates and discharges matter, and affects the bone. The nostrils become full, the voice altered and the eyes suffused with tears; accompanied by headache, &c. The most common situations of polypus tumors are the nose and vagina, although they may grow from any introverted mucous surface. For all practical purposes, it is sufficient to distinguish them into soft and hard, although surgical writers have made several sub-divisions of each, as mucus, vesicular, fibrous, fleshy, schirrus, or cancerous, &c. The latter variety is probably a true cancer, instead of a cancerous polypus. In treating this affection, you have generally time to attempt its removal by mild means. When your first means fail, use others and stronger. A simple snuff made of the blood-root and bayberry bark, pulverize, and mix, in equal parts. This must be snuffed up the nose frequently through the day. If the polypus is too large to admit it, it may be introduced by tying a strip of linen to a probe, wetting it, then dipping in the powder, and touching the tumor with it; to be often repeated. If this appear to have no effect,

after a few days use, you may try the "blue flag and May-apple-root;" used in the same manner as the above. If after sufficient time, say four or five days use of each means, these all fail to make any impression, substitute the pure vegetable caustic, in powder, till you have disorganized the accessible parts of the tumor; and then resume the former powders. If any of these applications are operating properly, the polypus will turn black, and begin to slough off. The degree of success will indicate the continuance of the same measure until the whole is removed. These articles, however, should never be carelessly used as snuffs. The mere local irritation of them may, through sympathy, excite severe sneezing and coughing; and it may be obvious that this neglect of precaution, will by actual inhalation occasion fatal inflammation of the lungs. These irritating powders can be safely applied by means of a camels hair pencil, slightly moistened, and applied to the exact point desired. The same plan must be adopted in applying the caustic powder.

In all cases of polypi, as well as in other diseases the general health is impaired, and therefore daily bathing, &c., and alteratives must be given, as our "alterative or scrofulous syrup," &c. The diet may require regulation as well as the local treatment. The bowels must be kept in regular and healthy action, and may be the better for an occasional cathartic or physic; or injection. It must be remembered that after removing this polyp—as in all other tumors and diseases—a relapse of it may be the case, if, the constitution is not yet rid of the poison, or cause of the polyp. "To make this sure," proper local as well as constitutional means must be persevered in, for a long time after all traces of the annoyance have disappeared. Or which is easier, and better, to lead a life of cleanliness, "by daily bathing the whole surface," and also live altogether on milk and vegetable diet, drinking nothing but, cold water, and taking moderate exercise in the open air, &c.

POLYPUS OF THE WOMB, OR VAGINA.—This polypus is usually of a pear shape, and attached by its smaller end within the cavity of the womb, or about its neck. It is sometimes found adhering to the os uteri, at others just within the neck, or even to the fundus. It has often a small stalk or pedicle, and the great mass of it projects into the vagina.

It may be very slow in its growth, and for a long time unnoticed, occasioning no inconvenience, except as a hinderance on the occasion of child birth. It may give trouble in this way long before it is large enough to prevent conception. I

have examined "says Dr. Hill," a case where I was fully satisfied the patient had given birth to three children since the existence of the hanger-on. The difficulty of labor increased each time. The polypus grew out from the body of the womb, and finally filled up the cavity and protruded into the vagina.

Polypus in the vagina may be mistaken by the patient, and by careless or very inexperienced practitioners for inversion or prolapsus of the womb. In such cases, your diagnosis will be aided by the history of the case. Of course, there is no question of inversion if the patient has never borne children.

The removal of polypus of the worm is generally facilitated by its pedunculated shape and position in the vagina. Having ascertained, by very strict manual examination, or by the speculum, the exact state of the case, introduce your ligature by means of the double canula of Levret, after which it is to be drawn tight enough to cut off the circulation and strangulate the tumor; the canula is to remain, and the ligature tightened from time to time, until the tumor comes away, which will usually be in five or six days. There may be some bleeding at this period; it can easily be stopped with blood-root, or any ordinary styptics. If the body of the polypus does not come away altogether, on the division of its attachment, remove it with the polypus forceps. Then, inject the vagina and womb with soap and water, gradually increasing its strength, and then changing it for a weak solution of the vegetable, increasing the strength to this until a solution of the vegetable caustic can be borne, and that again increased to a strong solution. In some cases the alkaline strength must be increased very cautiously.

It may, however, be difficult or impossible to get at the neck of the polypus, so as to apply your ligature, from its lying far up, or being too large to be passed; or from rigidity of the mouth of the womb. In such cases you must destroy, or disorganize the whole diseased product by the alkaline solution, or the vegetable caustic may be applied in powder. These means must be applied as the patient can bear.

In applying the dry caustic, in powder, directly to the surface of the polypus. By gradually dilating the os uteri, you can generally succeed in introducing your finger: fix a little wax on the end of it, with a cup-like depression, containing the powder, and thus put it on. Or you can moisten pieces of fine sponge, filled with the article, and push them up, by the side of the polypus, as far as possible, having threads attached, to enable you to draw them away.

Under the repeated applications of the powdered or dissolved caustic, the polypus will soon begin to soften, and portions of it to slough off. These applications must be continued until the whole mass is got rid of in the same way.

After discontinuing the caustic, the vegetable powder recommended for the nasal polypus should be thrown in occasionally. The same attentions to the general health are necessary as in the former case. Also hip-baths warm are very excellent in this disease. In using your caustic in solution you must pass a silver catheter as far into the womb as possible, and inject through it your alkaline solution, increasing its strength as it can be borne, or is necessary.

CANCER OF THE WOMB.—This disease generally occurs only in patients who may be described as having a cancerous diathesis. It is of rare occurrence before the period of life at which the catamenia, or menses, usually disappear. It is occasionally connected with polypi, and always with previous leucorrhœa and painful menstruation. The leucorrhœal discharge contains more or less blood; and, as the disease advances, a sero-purulent matter, or perhaps pure pus is mingled with it. At every catamenial period the pains are very great, and the discharges varying, sometimes very excessive, at others diminutive in quantity. The patient complains of bearing down. The pain in the back, and in the inside of the thighs, is more severe than attends simple leucorrhœa. Darting, twinging pains are also felt in the uterus itself, coming on and going off suddenly. On examination with the finger, the os uteri is discovered to be partially thickened and indurated, with an increase of size in its aperture. The os tinacæ may be entirely closed, or considerably dilated, its lips having become a hard ring. The part is quite painful to the touch, especially if pressure be made upward and backward. After ulceration has taken place, there will be a constant discharge of an offensive sanious matter from the vagina, often of a dark color. When the disease is far advanced, dangerous hemorrhage or flooding frequently takes place. Patients experience great constitutional irritation, and become much emaciated, or wasted in the body.

Proper local and constitutional treatment is the essential condition of cure; and, if persevered in, it will in most all cases, prove successful.

Constitutional Treatment.—Internally, occasional physic as our anti-bilious physic or pill. Also, the Alterative Syrup may be alternately used with the Restorative Wine Bitters, especially if the patient suffer from debility, or the Scrofulous Syrup may sometimes be changed for the Alterative Syrup, or some other similar preparation. Externally, wet-sheet-pack, followed by the alkaline rub-sheet, and friction. Also warm foot, and hip-

bath, at first, and reduced in temperature as the patient feels best, these means must daily be repeated, excepting the wet-sheet-pack may only in some cases be used every other or third day. Also, injection may daily be made use of, to regulate the bowels, if they are irregular, &c. Drinking every morning when you rise, a few tumblersful of pure cold water, before breakfast, and in the mean while or at meals drinking wholly of cold water, the diet must be vegetable and nourishing, &c.

Local Measures.—Your first local measure should be the injection of simple warm water, into the vagina and cavity of the womb. The parts are sometimes so very sensitive, that even this will give the patient considerable pain. Continue the warm water injections till it occasions no pain, then begin with weak soap-suds, increasing its strength as the patient can bear. In a few days you will probably be able to add a little mild caustic. Increase the quantity till you can use a saturated solution. All these lotions must be thrown into the womb, by means of a catheter of a large size.

Directions for making these uterine or womb injections:—Place a finger of one hand on the os uteri; and with the other hand direct the catheter along the finger that is on the os, till it also comes in contact with the uterus. Slip the finger a little aside, and the instrument will generally pass in. If not, turn it round and round awhile, pressing very gently till it finds its way in. Having carried it in so far as you conveniently can, throw in your fluid. For this purpose, be careful that the point of your syringe is exactly fitted to the outer end of the catheter, in order that the fluid may be prevented from rushing back, as it may be necessary to use considerable force. The quantity of fluid you are able to get in at first may be very small. Endeavor to go on increasing its quantity as well as strength. The catheter should be a silver one. These injections must be repeated once or twice a day if the patient can bear it. If at any time the caustic should produce irritation and inflammation, or they should occur during the treatment, suspend the irritating injections, and substitute slippery elm mucilage. Apply also warm fomentations over the pubic region, and give the patient a mild emetic, followed by diaphoretics, and an active physic, or injection up the rectum, using such means as are indicated in inflammations, &c. The cavity of the womb, as well as the vagina, should each time be well washed out with the stimulating lotions, &c.

The dry powdered caustic may also be applied to the neck of the uterus, in the manner directed, when speaking of poly-pus:—Place a piece of black salve or wax on the end of the finger, with a cup-like depression in it, filled with the powder. In this manner the neck of the womb may be well rubbed on two or three times a day, (if there is much tenderness of the

part,) here the solutions may, but be thrown in once a day. In many cases it may be a long time before the symptoms will yield to the treatment; but be sure and persevere and you will finally cure, though it may take your twelve or even sixteen months to cure a bad case. Cases of obstinate and malignant character have been cured, that were of years standing, and were pronounced necessarily fatal, by eminent authorities. In all such cases a vigorous constitutional course of treatment, as well as a vigorous local treatment is required. And nothing is better calculated for this than our Hydropathic Hospitals.

CANCER.—“Schirrus” may be regarded as the first stage of “cancer.” It may be proper to consider both subjects connectedly in this place. It is unquestionably true that all cancers are in their incipient stage hard, schirrus, indurated tumors—occult cancers—and in their latter stage, open ulcers—carcinoma. But it is equally true that indurated or scirrhus tumors often remain for an indefinite period in a condition of cartilaginous and almost stony hardness, without showing any tendency to cancerous ulceration. A schirrus tumor may become a cancer or some other malignant ulcer; and when the surface of the scirrhus is uneven to the touch, the skin leaden and wrinkled, with irregularly dilated veins, and twinging, growing, or lancinating pains, the cancerous character is clear. In its progress schirrus forms adhesions with all contiguous parts, the integuments above as well as muscles or bones beneath. Its growth is often but slow, continuing in the condition of a common hard tumor, for several years, without any material change. Sooner or later, however, the wrinkled skin about it seems to become dry, and finally cracks open in several places; forming deep grooves, from which discharged, a thinis foetid and excoriating fluid.

These fissures deepen and widen, in some instances slowly, in others very rapidly, with extensive ulceration and sloughing. The cavity thus formed constitutes “Open Cancer,” which, however, frequently fills up with an irregular fungous growth. This may go on increasing downward as well as outward, spreading widely beneath the surface. It is very irritable and sometimes bleeds profusely when touched.

Treatment.—Schirrus or hardened tumors resulting from inflammation may be dispersed by the general means laid down in the preceding part of this work. The douche applied to the tumor once a day, at first warm and then cold, and so changed a few times from cold to warm as the patient can bear, and

then followed by the cold compress. Also, occasional packings in the wet-sheet, and thorough course of derivative half, hip and foot-baths; and to this course of bathing must be added a plain, abstemious, and rather dry diet, and if there is any tendency to constipation, tepid injection must be used. Internally the Scrofulous or Alterative Syrup must be given.

But the canceroid tumor, or in other words in the open cancer, the caustic potash may be used, or the Sulphate of Zinc, or White Vitriol. If the caustic potash is used, it must be applied to destroy or disorganize the whole tumor or ulcer at once, or if this is too painful you may only destroy the half at the first application, and the other at a future application. Always after the application of the caustic, apply the slippery elm poultice, &c. If you make use of the sulphate of zinc, as this is only made use of in open cancer, (while the caustic potash is used both in schirrus and open cancer,) or the caustic potash may be used to open the tumor partly, and then the zinc applied. The open cancer or ulcer being filled with the zinc, and a poultice of slippery elm applied over it, in this way, this article will occasion severe pain to the patient, but, will rapidly disorganize and dissolve the diseased formations. This article, if used, must be used with caution, especially in the vicinity of large blood vessels, as it may, if let run on, disorganize the healthy parts and even vessels; but, the danger of this is easily overcome, if cautiously attended to. After the use of the zinc, the sore should still be treated with solutions of the vegetable caustic, and the powder of the same.

Another celebrated "cancer cure" is the following:—Take a certain quantity of lead and melt it in an iron ladle to which add brimstone while over the fire, until it becomes thick and hard like cinder. Pulverize it very fine. In open cancer, apply the powder by sprinkling upon the ulcer, and cover it with a common plaster, or slippery elm poultice. Or apply by sprinkling the powder on a plaster of a sticking nature, and apply to the cancer, the latter is the best way to apply it to the schirrus tumor. This is also an excellent remedy to destroy all tumors, in the above said manner. Renew or repeat the dressing once or twice a day, this is a sure cure if persevered in. "And at the same time constitutional means made use of." If the powder is too powerful, or gives too much pain, add one fifth part of finely pulverized May-apple-root (*Podophyllum Peltatum*).

This is the celebrated "cancer cure" of Dr. Ecker, so much spoken of. It is rather slow in its operation, but, it appears to be an excellent remedy, as a topical agent. I have seen it used with perfect success in various cases.

After the application of your caustic, dress immediately, and constantly thereafter, with the poultice of finely pulverized

slippery elm. This emollient and absorbent should be renewed as often as every six hours. Let no discharge once made, be re-absorbed into the system. Examine carefully, at every dressing, and, if any portion of the morbid growth appear again, or has escaped the application of the caustic or "what the remedy might have been," re-apply the caustic or killer again, as soon as the eschar sloughs off. Let the sore also be freely washed with an alkaline solution, as a solution of saleratus, or mild caustic. This may be repeated once or twice a day.

Never heal up your cancer too soon, much better keep it open several months longer, than heal it up one week too soon, as it should always heal from inside out by healthy granulations. Vice versa, or the contrary, not from outside inward, or in other words heal up on the surface, and beneath remain malignant, and, thus a second cancer appear in a short time afterwards.

Always remember as a matter of course, the cancer will, or may already be, a constitutional disease, and therefore your treatment must be of the very best of constitutional measures, as well as local means. You can never cure cancer permanently if you don't make use of these constitutional means, "already laid down in this work."

But, as said by our old "routineists," we cannot cure cancer, nor we don't believe that cancer can be cured, but, we may palliate, and cause the patient an easy death. The very reason that they cannot cure cancer, and a great many other diseases, is this, that instead of expelling one poison, they introduce into the system a dozen of "drug poisons," to expel that one poison, which is much less fatal, to the patient, than the poisonous drugs, or minerals, they introduce to cure the patient of the first poison.

Another specific cure, for cancer, is the following:—Take a green Toad, kill it, and dry it in an oven, then pulverize the whole very fine. This powder may be used like the celebrated "Dr. Ecker's" cancer powder.

But, the better way of applying this, is to take an extract of Sassafras bark, root, and wood. This extract must be made in the following manner:—Take Sassafras bark, root, and wood, cut fine, sufficient quantity. Boil and extract all the strength, and then evaporate to the consistence of thick molasses, or honey. To this add enough of the toad powder, to make a thick plaster, and apply to the schirrus tumor, with compression, or to the open cancer; repeat the application once or twice a day, and at every dressing apply a frigorific to almost freeze the parts, or ulcer, and then re-apply the above plaster. "At the same time the constitutional remedies must not be neglected."

The knife and ligature are sometimes, or oftentimes used to destroy schirrus tumors, but, these means if not aided by

other means, cannot cure, but aggravate the case, excepting the tumor be so situated that every particle can be removed at once. And the constitution is not yet affected.

Nevertheless in some cases, if the patient will willingly admit to the operation of the knife, (it may be used with the other means recommended); you may operate, and shorten the cure in local tumors of all kinds, whether cancerous or not. One thing should always be remembered, in the constitutional treatment of this disease, (like in a great many others,) that is drinking a good deal of pure soft water (see Introduction on water drinking,) especially in the morning before breakfast.

FUNGUS HÆMATODES.—This term means bloody fungus; the disease is sometimes called medullary sarcoma, spongy inflammation, encephaloid tumor, and soft cancer. It is quite as serious as true or schirrous cancer, though coming on in a different way, and generally affecting different parts and different classes of patients. The general name now adopted, is “bleeding cancer.” It commences with a small, elastic moveable, and nearly insensible tumor, under the skin, the integument itself being unaffected.

If, however, inflammation should be excited in the part, from any external or constitutional cause, the swelling will increase with great rapidity, becoming distinctly lobulated. The skin becomes discolored with purplish or red spots, as well as enlargement of the subcutaneous veins. The skin itself now adheres firmly to the distended mass. In a short time, the inflammation results in ulceration, generally showing itself at several points, from which dark colored fungus growths soon sprout out irregularly, to a considerable distance beyond the surface. The whole fungus mass is extremely vascular; and the top is much larger than the base.

The adjacent lymphatic glands become affected, and are frequently converted into substances similar to the abnormal growths themselves. The patient's general health rapidly declines.

Fungus Hæmatodes is most liable to affect young persons, and the extremities rather than the trunk.

Any part of the glandular system is liable to it, as before remarked, but other parts are not exempt or free from it.

Treatment.—When the lymphatic glands have become affected, to some extent, the disease will be doubtful to cure, but, nevertheless, means may be tried, but, in vain I am afraid.—Before this, prompt and efficient means may remove the evil and save the patient. So long as the lymphatic glands, in the

neighborhood of the affected part, remain free from the disease—so long as the tumor is still free from inflammation and insensible to pressure—so long as it seems loose underneath the skin, even though there should be some slight adhesion to the surface over it, with discoloration of the skin; there is a prospect of cure. The tumor may be removed with impunity, if there is yet no adhesion to the muscles or other parts beneath. If the tumor is so situated that it can be wholly removed, let it be done with the knife. Seize the mass firmly with a tenaculum, or hook, and raise it up with considerable force, so as to put the skin upon the stretch. Then cut through the integuments round the morbid mass, at such a distance as will include not only every appearance of adhesion but of discoloration or enlarged blood-vessels.

As a general rule, the incision should circumscribe as much as three-fourths of an inch beyond all visible sign of affected surface. The integuments and superficial fasciæ being cut through still pull upon the tumor, so as to put the cellular membrane on the stretch. Pull on, and you will generally be able to get it away, without further cutting. If not, let the knife aid. Recollect, however, that if any affected part, particularly of the skin, be allowed to remain, it will regenerate the disease. The advantage of distending the skin and cellular membrane, is that it enables you to avoid dividing blood-vessels. After such a removal, apply a slippery elm poultice, and let it remain on for twelve hours. On then removing the poultice, the wound should be washed with vegetable caustic solution. This lotion and poultice should be continued day after day until the whole heals up. (HILL).

The application before mentioned under true cancer, is here an excellent remedy:—namely the Toad Powder and the Extract of Sassafras.

If the tumor is so located, or so adherent to surrounding parts, as not to be clearly removed by the knife, your only chance is the caustic potash, and the above Toad Powder and Sassafras Plaster.

In cauterizing, you must principally rely on your first application, and then fill the cavity, with the above compound, (this will at any time have a tendency to stop the bleeding) and cover the whole with a slippery elm poultice. If you fail to destroy every fibre of the diseased mass; you may stimulate it to increased extension. In the course of a short time, perhaps in twelve hours, it will have spread further than before.

Have your cauterization extensive enough, and continue it long enough, to insure your object. Leave nothing but a disorganized mass. When you are satisfied there is nothing left but what can and will come away, put on the emollient and absorbent poultice as before directed. If there be hemorrhage

or bleeding apply the Compound Extract of Sassafras. Generally, there will be little bleeding when the caustic has been properly applied. As soon as the parts commence sloughing, let the mild caustic, in substance, be freely applied several times a day, for two or three days, and gradually discontinued as the parts assume a healthy appearance. The elm poultice must be renewed at least every four or five hours or sooner, just so as to absorb all the matter thrown out from the sore.

Constitutional treatment to be adopted throughout is pretty much the same as that recommended for Schirrus or Cancer. However more active. The bowels are to be kept considerably loose, by injections, and an active cathartic given every four or five days, as the Anti-Bilious Physic with Cream of Tartar. As an Alterative and Diuretic, give an strong decoction of Sarsaparilla, and Burdock-seeds, equal quantities, sweetened with loaf sugar, this must be taken cold in half teacupful doses, four to eight times a day. The patient's strength should be sustained in the mean time, by stimulants, tonics and a nourishing, but, rather dry diet. As a stimulant, tonic, and alterative, the tincture of the bark (not berries) of Prickly Ash, is an excellent remedy, combined with our Alterative Syrup, or taken alone three or four times a day, in doses of from twenty to forty drops. It may be taken with the above decoction, in the above said manner.

Also, bathing and sweating the patient as his strength can bear. Say the alcoholic-vapor-bath, or warm wet-sheet-pack, followed by the alkaline rub-sheet warm or cool as indicated, with the general other means, as necessary, &c.

OSTEO-SARCOMA, OR BONE CANCER.—In this disease the bone is enlarged, and its structure altered, from a deposite of flesh-like matter mingling with its substance. The changes thus produced seem to be the result of inflammation, often excited by some mechanical injury, or some long continued local irritation. As the disease progresses, the internal structure is changed to a brownish, fleshy mass. The symptoms at the beginning are acute pain in the affected parts, with slight constitutional disturbance. The part soon begins to swell, becoming hard and elastic, and the pain is more dull. At a still later period, acute lancinating pain returns. Severe constitutional symptoms now set in, the tumor becomes fluctuating, and in consequence of loose pieces of bone floating in it. Crepitus, or screeching of bones can be felt on handling. Eventually the integuments burst and large fungus growths

sprout out with a profuse bloody discharge. The patient at this stage is much prostrated, and if not soon relieved by proper medication, cannot survive long. This affection is most frequently seen in the lower jaw bone.

Treatment.—The first thing to do—except when a part or limb is so far destroyed as to require amputation or forbid any attempt to cure—is to cauterize an opening into the centre of the diseased mass, so as to allow the free escape of purulent matter and loose pieces of bone; and then wash out the cavity freely, two or three times a day, with a strong soap-suds, following it each time with a strong solution of the vegetable caustic. Fill the cavity, as far as possible, after each dressing, with pledgets of lint, or cotton, in which the dry powder of this caustic is involved, or inwrap. This will excite a copious discharge, which, under the continuance of these applications, soon gives place to pus of a more healthy character. All the loose portions of bone, as well as fungus growths, will be discharged from the ulcer, and the tumor rapidly diminish. If the disease be in the jaw, extract some of the teeth nearest the point of disease, and through the bottoms of the alveoli, make an orifice to the disease, if it has not already extended to the roots of the teeth, as it does very early. Having thus made the diseased part accessible, wash as before directed, and apply the lint, with the vegetable caustic.

Hot or warm fomentations, followed by the emollient poultice of slippery elm, made up with cold water, or cold milk, these means must be applied if practicable, two or three times a day, as long as it is irritable or painful. If the ulcer at any time assumes a foetid or stinking character, inject an alkaline solution, as soda, salæratu, or pyroligneous acid until the foetor or stink is dispersed.

Constitutional treatment is of great importance. Externally, wet-sheet-pack, or alcoholic-vapor-bath (if the patients strength can bear it) followed by the alkaline wash, with brisk friction to the skin, this may be repeated every one, two, or three days as indicated. Also, injections to regulate the bowels, and hip, foot and rub-sheet must be daily used; if necessary, &c.

Internally, a repeated physic, (as anti-bilious pill or powder,) once in four or five days, also let the patient use the Alterative Syrup, three times a day, and, if the patient is debilitated let him besides taking the syrup, take twice a day of the Restorative Wine Bitters. *Diet* must be vegetable and nourishing, and nothing but cold water drinking, &c.

CARBUNCLE, OR ANTHRAX.—This affection is sometimes called a malignant boil. It commences with a livid, red

swelling, attended with a burning, smarting pain, followed by vesication; the ulceration appears in the form of several fistulous openings, from which a thin, acrid fluid exudes, excoriating the adjacent surface. The disease always indicates a very debilitated state of constitution, and rarely occurs in any but aged persons. It is generally located in some part of the back, or neck, &c.

Treatment.—The best management in the most malignant forms is, without doubt, the use of the caustic potash, cauterize every part of the diseased part, and perfectly disorganize it. There is much less pain attending the application of caustic in carbuncular than in cancerous or malignant tumors. By thus applying the caustic potash in the above manner, or to disorganize the whole morbid growth, you will kill all pain and suffering. But, if, however, the characteristic pain should return, it is evidence that the caustic was not properly applied, and must be re-applied. After this application of caustic potash, emollient poultices should be used, as elm poultice, changing them frequently and washing of the eschar every time with a strong solution of the vegetable caustic, gradually diminishing its strength as a healthy action appears.

The parts destroyed will soon become putrid and slough off. There is generally more or less gangrene before you commence. To correct the foetor or stink, a poultice of slippery elm mixed with pyroligneous acid. Or the parts may be washed freely with the acids before the poultice is applied. *Diet* must be nourishing, &c. The constitutional must be the same as the preceding disease.

BRONCHOCELE, OR GOITRE.—A tumor on the forepart of the neck, formed by a enlargement of the thyroid gland. The progress of the swelling is extremely gradual, and in general, the skin long retains its natural appearance. It is at first soft; but as it advances in size it acquires great degree of hardness; the skin becomes of a brownish or copper color, and the veins of the integuments are varicose. The patient complains of frequent headaches, and likewise of pains shooting through the body of the tumor.

Treatment.—In this complaint we must employ cold and warm douches to the spine, and to the tumor itself as the patient can conveniently bear, with occasional packings in the wet-sheet, and a thorough course of hip and foot-baths; to this bathing must be added a plain abstemious, and rather dry diet.

The cold shower bath to the tumor, the surface rubbed dry, using brisk friction with the hand of another person, before applying the compression and liniment. Then apply the following liniment:—spirits of turpentine in which, is dissolved, as much gum camphor as possible. This and the compress, or bandage must be applied after each showering bath, these dressings may be repeated two, three times day, with just as much compression as the patient can bear. Also, an occasional emeto-cathartic (as our Anti-bilious-pill) must be given, if the patients strength can bear it. This may be repeated once a week, and in the mean time injections, or Anti-dyspeptic pills to regulate the bowels. Tonics and Alteratives may be necessary, the Restorative Wine Bitters, alternately with the Scrofulous Syrup—say, mornings and evenings the Bitters, and before dinner and supper the Syrup. It must be borne in mind that the cure will take time, in bad cases it often takes four and even six months, though in some, a few weeks will effect a perfect cure. In some very bad cases the irritating plaster may be applied to the arms, at the deltoid muscle, or several inches above the elbow joint; here, there must a constant discharge be kept up through the course if necessary.

PARONYCHIA, WHITLOW, FELON.—An acutely painful inflammation, seated about the nails and ends of the fingers; the term paronychia is applied to all phylogmonous tumors of the fingers and toes. The symptoms are very much modified by the location. Four varieties may be noticed.

1st. It may occur in or near the surface, just below the cuticle or skin, but about the nail like a common “run-round.”

2nd. Its seat may be in the cellular or fibrous tissue between the cutis and the sheath surrounding the tendons; or

3rd. Within the sheath of the tendons, under the vaginal ligament of the fingers, or, it may be, upon the synovial surface: and

4th. The inflammation may originate within the periosteum, between it and the bone, constituting the worst or malignant form; the true felon. Similar inflammations are sometimes found about the palms of the hands and soles of the feet.

Symptoms.—The pain commences deep, with pricking, throbbing, swelling, and inflammation. It proceeds very slowly to suppuration, and often affects the bone and sinews.

Treatment.—It is customary, in treating felons, to cut down even to the bone; but, I have found that this is one of the

greatest humbugs that ever existed, for this always aggravates the truc felon, however this may do in the cutaneous variety, if the boiling has come to maturity, or in other words is "ripe," and if no better means are known of; but, since we know a little more about the cure of disease, than our old routinists do, we may pronounce that a humbug. Our so called allopathic doctors want to cure every thing by the knife, and other instruments, but, any man with good moral sense may know that this cannot be done. I have in the past season cured upwards of thirty felons, not failing in one case out of the whole number. And some of these cases were lanced, or cut open, by some of our fashionable M. D's, which aggravated every case. I made my application as I shall present to you. I relieved them from pain in one or two hours; which had been under the most irritating form for weeks, under the old treatment.

Indication of Cure.—In the beginning or before it has suppurated, make use of the following means:—Soak the part half an hour in weak ley, as hot as can be comfortably borne; if the skin on the part is thick, shave it down, but not to bleed; then take clay, dry it, pulverize, and sift it; add spirits of camphor, made very strong with alcohol and gum camphor, until it is about the consistency of common mortar; apply to the part affected, about half an inch thick; in a short time the clay will become dry, then pour on this spirits of camphor until it will not absorb any more, or get dry. Continue to moisten the clay in this manner as often as it becomes dry, which it will generally do in fifteen minutes, especially at first.

Pursue the above process for two or three days, without removing the bandage or changing the clay. Always bear in mind to have the bandage as tight at the extremity of the finger or part as you, or the patient can bear, and as you put on your bandage, by commencing at the end of the part, and always having the tightest at the end. When you wetten the clay, you can take off your roller, or outer bandage, and after having it wet, re-apply it; always have the part so enveloped that the outside is dry, when dressed. This never fails in the incipient stage, or beginning, if, properly attended to. I have used it in a number of cases never failing in one. But, if, suppuration has once set in, and perhaps is an open one, then, other means may prove more beneficial. (The above clay cure will discuss or scatter the disease, and the finger shrinks, and has a white appearance when cured). In this stage of felon, when suppuration has taken place that it cannot be scattered any more, or it may already have been lanced, or cut into by some quack. The caustic potash must at once be taken and the part cauterized deeply to destroy all the diseased parts at once; if you succeed in this in your first application you have the felon cured, and the patient relieved in a few minutes. It will

as a matter of course give some little pain while applying your caustic, but, nevertheless you have then overcome the disease, and need only dress it four or five times a day, by bathing it at every dressing in a strong, or at first weak (and increased the strength as the patient can bear) lye; after this wash it off, and apply a slippery elm poultice made of milk, and applied warm or cold as the patient desires it. If any fungus or proud flesh shoot out, apply, or sprinkle at every dressing the ulcer with unslacked lime, or vegetable caustic, &c. After all the inflammation has subsided, and the ulcer is clean of proud flesh, heal up with the black salve or any common healing salve. Should the hand or arm be inflamed of the felon, apply cold wet-cloths over the whole, poultice and all or (letting the felonious part stick out,) with the compress or dry bandage over the wet cloths.

If there is any constitutional disturbance treat them on general principles laid down in a preceding part of this work. This course of treatment is much less painful and severe than the old plan of treatment, and will cure, where as a general rule the old practice aggravates, and never cures, but lets the disease run its course. I could mention a case, Miss F—, who was treated by an Empiric of this place, for several months with the most distressing pain. The honorable Dr. S—, (the lady told me afterwards) lanced the finger every day almost, without the least success, till at last he had almost cut up the finger. After the disease had run its course it got well. But if this celebrated surgeon, as he calls himself, had stayed at home with his wife, and let the felon have its own chance it certainly would have got well much sooner, than by this butchering process. For is it not cruel and pitiful to think about such treatment and mal-practice as this.

WARTS—VERUCCÆ.—These are rather exeresences than tumors; some are smooth and apparently filled with fatty matter; others, called seed-warts, are rough, hard, and insensible. Some warts secrete a fluid which is infectious, and will produce a crop on other persons or on other parts of the same person. They may be effectually removed by the following preparation: Take peneil Caustic Potash, 2 drachms, ground up as fine in a glassed mortar as flour, then add one even teaspoonful of wheat flour. Mix thoroughly. When you want to use it, wetten a part, and make a paste, and stick a little on the wart, being careful not to get it on the skin. This will destroy them, without much smarting or pain. Also, the nitro-muriatic acid will

destroy them, if, applied by means of a pointed piece of wood to the centre, having the same precaution as the above, not to come in contact with the skin. If the first application of these remedies does not destroy them fully, make your second application.

CORNS—CLAVI.—These toe-tormentors are produced by tight shoes or boots.

Treatment.—Soak the foot in hot lye and shave off the horny substance, and then you may touch them with the acid as mentioned in the latter disease, or the caustic paste may be used to destroy the corns. Each of them will destroy the tormentor. Bathe the feet as above recommended every day, and then apply the black salve, after having shaved off the corn, this process is not so painful, and will be a more permanent cure. But as prevention is better than cure, you must always prevent wearing tight shoes.

Corn Plaster.—Purified ammonia and yellow wax, each two ounces; acetate of copper or verdigris, six drachms; melt the first two ingredients together, and, after removing from the fire, add the verdigris just before they get cold; then spread on soft leather or linen, pare the corn with a knife, and apply the plaster: remove in two weeks. **Bunion.**—This yields to the same treatment as the above.

INVERTED TOE-NAIL—ONYXIS.—This is a very distressing disease of the toe, and sometimes finger nails. The nail, from some accidental bruise, or the wearing of a tight boot or shoe causes concurring, curls down at the sides, and becomes embedded deeply in the flesh. The whole toe inflamed, swells and soon suppurates or ulcerates at one or more points about the nail, whence large fungus or proud flesh frequently shoot out, which are extremely painful and tender to the touch. The patient is unable to wear a shoe or to use the foot. The cure is slow but certain.

Treatment.—First bathe the foot in warm weak lye, for from one to two hours each day, and in the intervals cover it with a large elm poultice, kept warm. Continue this course of treatment, until all inflammation and soreness have subsided,

and the parts can be handled with impunity. This will generally take place in three or four days. Then, each time after the part has been in the lye for the time said, press under the nail with a probe or knife, at whatever point it is the most detached, pledgets of lint or cotton, as firmly as can be borne. Also, press the pledgets down at the sides, between the nail and the flesh which has risen up and projected over the nail, and fill it up so high that a bandage will press a little on the tents or pledgets. Cover these with a black salve or any simple plaster, to shield the parts from the air, but, should there be any inflammation you may apply the elm poultice over in the same manner, and apply a bandage moderately tight over the whole.

These tents will from time to time pass further and further under the nail, and completely separate the flesh from it. It should be immersed in the lye or warm water, and dressed once or twice daily.

As portions of the nail become loose let them be cut off, until, by thus crowding the tents under at different points, and paring off the nail, you have removed it all. If there be any fungus or induration of the parts, not removed by the lye and dressings, the unslacked lime, or powdered blood-root, &c., may be applied to remove it.

After the removing of the nail in this manner, the parts will readily heal. Nor does the disease, thus cured, return; whereas, in most all, or all cases, when the nail is violently taken off, the new nail is as bad and yet worse, than the old, and the patient suffers as before. It may take a few months to perform a cure. But, it is not painful and is certain.

TUBERCLE OF THE GUMS. EPULIS.—A small tubercle of the gums, which generally appears above and below the incisor teeth, sometimes becomes a serious malady. It commences with a small seed-like swelling, which grows so slowly and painlessly as to attract little notice; but at length it enlarges rapidly, becomes soft, bleeds on the slightest touch, on its surface becoming accidentally abraded, fungus spreads out with prolific growth.

From this time it continues to involve the gums, displacing the teeth, and affecting the glands and other soft parts of the mouth in rapid succession, until the patient is destroyed by the irritation and hemorrhage or bleeding.

To treat this successfully, the proper measures should be adopted rather early. After it has extended to the lymphatics

(like in fungus hæmatodes) and the cellular portions of the æthmoid bones, the tongue and palate; palliatives only are of any service.

All the teeth near the affected gum should be immediately extracted; and the tumor cut down to its base, with caustic potash, applying it to every portion of the diseased structure, so as to effectually disorganize and cause it to slough off. For this purpose, let all the surrounding parts as the lips, tongue, &c., be protected from the action of the caustic by means of cotton wet in vinegar, rolled up and pressed in around the portion to be cauterized, and kept there until the operation is completed, and the cauterized surface also wet with vinegar.

Having done this, cover the eschar with a pledget of lint; wash out the surface freely two or three times a day with a strong solution of the vegetable caustic; and cover the surface, as soon as the sloughing has taken place, with the dry powder of the last named caustic once a day, or oftener if there is any tendency to fungus growths, placing the dry powdered elm bark on the caustic, and covering the whole with a thin layer of raw cotton.

If there is a free discharge of pus, change the dressings and wash off with soap-suds, or a solution of the mild caustic three or four times daily or oftener if necessary. After two or three weeks, the caustic solution applied twice a day will be sufficient; it will heal kindly. (HILL).

In all these cases (like in fungus hematodes or cancer) strict attention must be paid to the general health.

RANULA.—This is a small tumor under the tongue, resulting from obstruction of some one or more of the excretory ducts of the sub-maxillary or sub-lingual glands.

Treatment.—For these tumors is to be cut through their surface with the points of sharp scissors, and take out a small portion of their substance. Then wash out the cavity with soap-suds, or a solution of vegetable caustic; or if it remain obstinate, after a few days, apply the caustic potash. This will soon effect a cure. All tumors of a similar character, require the same treatment as these.

SYCOSIS OR STYE.—This is a fig-shape tumor, a fungus growth, and a horny excrescence about the eye lids.

Treatment.—Apply stimulants, such as the tincture of Gum Myrrh, if this fails let the tumor be slightly touched with the caustic potash, after which apply the elm poultice, and it will slough off, and heal. These tumors are connected with uncleanliness, bad diet and drink, or an absence of water, and may also be cured by thorough local and general bathing.

LUPUS, or NOLI-ME-TANGERE.—Lupus literally means “The Wolf;” and Noli-Me-Tangere, “don’t touch me”—terms expressive to the ones-self hatred nature of this excrescence.—It is a malignant disease, usually about the nose and mouth, commencing as a small tumor, and progressing to a foul ulcer. Its first appearances are various as a small dark sore, tubercle or vesicle, or a large, prominent wart. The lupus ulcer is known by a purple margin and depressed centre, which exudes a tenacious pus, or an icherous matter; the exposed surface has a fiery red appearance, and the pain is of a pricking or smarting kind. When occurring near the eye, it will, if not arrested, destroy that organ, and may extend to the brain. Also, there will be only a slight inflammation of the skin, with little, if any, tumor or tumefaction. This results in a dry “scaly scab” of a darkish color, which is rather easily detached, leaving a red and inflamed surface beneath. After this scab has several times been removed and renewed, a sore takes its place. The pain is severe, sometimes pricking, as the disease advances.

Treatment.—If commenced at a very early stage, is quite simple and effectual. It can be removed, or, prevented by an early application of a little saleratus water. A few days perseverance, with this lotion, will often be successful, in the simpler forms of the disease; a few weeks will generally answer the purpose. If this or other simple means fail, the caustic potash should be resorted to, and treated as a cancerous tumor of any other kind. It is easily cured if it is so situated that you can get at it.

ANEURISM.—This is a diseased state of an artery, inducing dilatation and subsequent rupture. Some suppose rupture of the internal coats, if not also of the external, to be a first, or early occurrence. This is an enlarging and pulsating “tumor.” The exciting causes may be local injury, violent

bodily exertion or strong mental emotion. The patient often refers to a strain when "something was felt to give way." There is generally a predisposing cause in some form of cachexia, such as syphilis or mercurialism. Aneurisms are divided into true and false. True, where one or more of the coats of the artery form its covering or sac; false, where the sac is formed in some contiguous tissue.

Diagnosis.—Aneurism, when external, is known by a pulsating tumor which beats at the same time with the artery where it occurs; it may be diminished or emptied of its contents by pressing on the affected artery above the tumor. Internal aneurisms, which occur in the heart or large vessels of the chest and abdomen, are extremely difficult to distinguish.—Aneurisms of the heart are divided into active and passive; the former is really a hypertrophy or thickening of the parietes of the organ, by which its cavities are diminished; the latter is the true cardiac aneurism, attended with an enlargement of its cavities. An aneurismal tumor pulsates in all directions, laterally as well as in the direction of the artery. Aneurisms are generally soft at first, and subsequently harden, and they do not pulsate from their commencement. By stopping the current, a true aneurism will disappear; in a tumor or false aneurism it will remain, though the pulsating ceases, in both cases. An aneurism true gives the peculiar murmur (the aneurismal thrill); a tumor communicates no such sound to the ear.

Treatment.—I agree altogether with Dr. Beache's treatment in this complaint. In the treatment of aneurism I recommend the following course. The patient must avoid all kinds of irritating food and drink, and all exertion, and adopt a mild vegetable, low diet. The tumor may be kept constantly wet with cold water; and an occasional congelation applied, or frigorific, and followed by the cold compress. A purgative should be given about twice a week, as our common Anti-Bilious Physic; and when the pain is very severe the sudorific Tincture or Diaphoretic Powders, may be given and aided by other means to promote moderate perspiration, having warm bricks applied to the feet, &c. Also, here if the pain in the part is great, narcotic plants may be applied in the form of a warm fomentation, and followed by the cold compress, &c.

Compression of the Bandages.—A very good method to arrest the circulation of the blood, and prevent its accumulation in the aneurismal sac, is to fold pieces of linen into small compresses (wetting these bandages occasionally with cold water) sufficient to cover the artery, and applied directly upon it, just above the tumor, and over the small ones several large ones, gradually increasing their size; over this let numerous folds of a bandage be applied, that the compression may be effectual

and permanent. As often as this becomes loose, or the patient is uncomfortable, let it be re-applied, and such an amount of pressure made as the patient can bear. This in some cases may be sufficient to cure the disease.

Should not this prove adequate, let compression be made by an instrument exhibited by Dr. Beache in his surgery. This instrument may be either an arc of steel, with a joint in the middle, and a screw by which the extremities of the apparatus are pressed together; or else a solid clamp of steel, having a wooden splint at one end, and a pad with a screw at the other. By means of either of these instruments it is evident that the pressure is confined to two points only of the circumference of the limb. As soon as it becomes wearisome to the patient, it can easily be shifted to a spot higher or lower down, in the course of the artery, and it seems advisable to have either two or three instruments, or else two or three pads on the same instrument, which the patient may tighten and loosen by turns. (Always have one fastened before loosening the other). The pressure need never be very severe, nor is it necessary entirely to stop the circulation; but if applied with sufficient force to render the current very feeble, the aneurism is, after a time, found to have lost its pulsation, and to have become solid. This happy event may occur in three or six days, or perhaps may require as many weeks after which the tumor is slowly absorbed, and the limb or part may be brought into use again. With compression, low diet, rest, sedatives, tonics, frictions, warm hip and foot-baths, warm sheet-pack, with cold compression and hot applications to the extremities. These means must occasionally be made use of. The wet-sheet-pack must always be followed by the alkaline rub-sheet or hand-bath. Injections, or Aperients must be given to regulate the bowels. Also the freezing process, spoken of before, must not be neglected. Warm foot and hip both act as sedative agents. An occasional emetic might be of great avail, especially if the stomach is foul.

There is no danger or risk to run in applying the compression, as there is in ligaturing the artery. The danger resulting from the application of a ligature, is inflammation and sloughing of the artery. And a consequent necessity of repeating the operation. Also of sloughing and gangrene, produced through irritation and lack of nourishment in the part, and destruction of life thereby. The bathing appliances must be mild and gentle, so as to prevent any shock to the circulation. The wet-sheet-pack may be made use of every third or fourth day, but bearing in mind, to apply cold cloths with the compression to the aneurismal tumor, or if it can be done expose the part of body, where the aneurism is located; this packing is excellent, if rightly done. Duration no longer than one

hour, and in some cases much shorter, but this can be regulated by the feeling of the patient, &c.

VARIX OR VARICOSE VEINS.—These are tortuous, knotty, elongated thickenings and dilatations of the coats of these vessels. Varicose enlargements are most frequently found in the lower extremities, the spermatic and hemorrhoidal veins are also very liable to become varicose. In many cases the valves of the veins are destroyed; the affected vessels are liable to inflammation; and the lower limb is particularly disposed to ulceration; which bleeds easily and heals with great difficulty. Varicose ulcers have existed twenty and thirty years, rendering the limb almost useless.

Treatment.—Compression with the common bandage or roller when skillfully managed, will often cure varicose veins of the lower extremities. Surgeons have experimented largely in several processes, circotomy or incision, extirpation, ligation, and cauterization; but with very poor success in all. A plan for destroying the vessels by the combined action of caustic potash and compression, has been successful in many cases. It consists in the application of caustic to one or two very small portions of the distended veins at a time, so as to produce ulceration and ultimate adhesion, the part being in the mean while, dressed with adhesive plaster or which is better the wet roller. As soon as one dilated or distended vein is destroyed, the caustic may be applied to another, and so on. I regard “says Dr. Trall,” this practice as perfectly safe provided due attention is paid to bathing and dieting. And will most undoubtedly cure.

WHITE SWELLING, OR HYDARTHROS.—This disease commonly affects the knee-joint. Authors make two varieties, scrofulous and rheumatic, as it appears in persons predisposed to, or afflicted with either of these complaints.

Scrofulous or true white swelling never occurs in any but scrofulous persons. It is scrofula in a joint. For a long time after the disease has located itself there, the pain may be very slight. Gradually the patient's sufferings increase, and become at last very intense, particularly at night. The central part of the joint seems the point most affected. The swelling also is very slow in its progress, except in cases of a very

marked scrofulous character. Even then, there is no discoloration of the skin, or, rather it appears whiter than natural, (whence the popular name.) It becomes very tense, with a smooth, shining aspect, and marked with varicous veins. There is a constant sensation of heat in the part. In this condition it may remain for years, but usually the swelling continues to increase until the soft parts become so hard as to appear like enlarged bone. As it progresses the tibia is thrown backward, the condyles of the femur project forward, the whole limb emaciates or wastes, anchylosis takes place while the joint is flexed, and matter collects, and is discharged at variose sinuous openings. Extensive caries of the bone often ensues, with hectic fever, soon terminating in death.

Special Causes.—Repelled eruptions, local injury, mercurial and antimonial medicines, syphilitic taint.

Treatment.—This is one of the maladies which the popular “healing art” does not pretend to heal. When the joint is very painful, it should be fomented with bitter herbs, or at first, it may be steamed with the bitter herb decoction while steaming hot, and when they become cool enough to be borne apply them to the parts, these must be followed by the cold compress, &c. The cold pouring-bath douche, or leg-bath, or which may be better slightly faeezing the part for but a short time, if it can be applied without too much pain. Indeed, in most cases they will each and all have a soothing and sedative influence. Callus edges of the ulcerated surfaces, sinuses, and fungus growths, will require the application of the mild or caustic potash. Continue to repeat the steaming operation, at least once a day, with stimulants and compression in the mean time. After having cleansed the parts with the vegetable caustic, if the bone be not affected, discontinue that article, and use more active stimulants proper, such as the compound Tincture of Myrrh. The caustic, however, is to be resumed, if there is no tendency to healing, or the discharge at any time take on an unhealthy appearance. The latter symptom will be reason to suspect the bone to be involved. This can be ascertained by the probe, or by close inspection of the discharge. As long as soft, carious bone, or discharged pieces, can be discovered, the caustic must be persevered with. At such times the solution must be injected into the wound, also your stimulants. Cases that are too irritable to use these stimulents, must be treated with the steaming and fomentations, and also the emollient poultices, until the irritation is allayed.

In all these diseases the constitution is affected, and as a matter of course, restoring the constitution, is the leading process of the cure, and the disease can never be cured permanently without these measures. Then our constitutional treatment

must be vigorous and prompt. Internally, after freely moving the bowels with our Anti-Bilious Physic, give the Scrofulous Syrup, or the Alterative Syrup; one of these should be continued constantly, and even much longer than the local disease exists. Externally, daily the alcoholic-vapor-bath or wet-sheet-pack, followed by the alkaline or common bath, with very brisk friction to the whole body. Also hip and foot-baths, and the douche warm or cold applied to the affected parts, and along the spine, and extremities. Always bearing in mind the necessary part, which is diet, as it must be nourishing principally vegetable, and the drink water. Next I shall take up the rheumatic white swelling, which requires a similar course of treatment. However, I may remark that moderate exercise will be much better, than the old way of keeping them tied up through the whole course of treatment.

HYDROPS ARTICULI.—This is usually regarded as a result of rheumatic disease, and hence called rheumatic white swelling. Then, Rheumatic White Swelling, is an enormously distended, synovial membrane and capsular ligament, caused by serous effusion. It renders the limb stiff, though the pain is slight, unless when aggravated by exercise. Sometimes the dropsical effusion extends along the tendons of the muscles. — The whole limb even may be distended with it.

A similar constitutional treatment should be resorted to, as recommended for Chronic Rheumatism in general, however, with the addition of more hydragogue physics and diuretics, and these frequently repeated. Here the Anti-Bilious Physic with Cream of Tartar may be made use of, once or twice a week as the patient's strength can bear, as a diuretic decoction of parsley, or Seneca-snake-root, &c., may be taken frequently during the day, say a teacupful three or four times a day, or copious cold water drinking. Also, daily wet-sheet-pack or alcoholic-vapor-bath, &c., &c., also, injections to regulate the bowels, these must be kept free.

Locally.—The warm or cold douche or any common stream of falling water, to the affected joint, followed by the cold wet compress or roller; this roller must constantly be worn, and often resorted, say four to five times a day. The roller of course must be commenced rolling at the extremity of the limb, say the great toe, and continuing to roll upwards, with as much compression as the patient can bear. It is understood that before you apply the roller, you must apply your wet-cloths, either wet in cold water, or some stimulant, if you think pro-

per; but I prefer the cold water, and then the roller over the cloths. Also, steaming the limb may be necessary, if there is pain, and restlessness. For this purpose take catnep, hearts of mulleins, double tansy, worm-wood, &c., of each two handfuls. Boil them in six quarts of water, together with a pint of soft soap, a sufficient time to get the strength from the herbs. Put the part affected over the steaming boiler by placing it on the floor, or in any other way, and closely cover the part with a blanket, steam for fifteen or twenty minutes. Immediately after steaming apply the fomentations, or a poultice made of one handful of dandelion roots, and one handful of the hearts of mullein, and the same quantity of catnep. Boil them in sweet milk, and thicken with wheat flour, or slippery elm flour. This process is only necessary when there is great pain, the steaming may be repeated several times a day.

ANCHYLOSIS, OR STIFF JOINT.—This may be complete or incomplete. It is the result of disease or injury of the joint. In incomplete ankylosis the ligaments, tendons and surrounding cellular tissue only are involved. The joint admits of slight motion. In complete ankylosis the extremities of the bones are firmly united.

In the Treatment, if there be any inflammation or soreness of the joint, remove this by fomentations, cups dry applied, and followed by the irritating plaster, with such constitutional treatment as the case seems to require. The irritating plaster is more certain to remove the dull pain and chronic inflammation that attends stiff joint, than any other means of which I have any knowledge. This, however, will be much aided by the proper daily fomentations. If, after having removed the soreness, the joint admit of any motion, hopes may be entertained from further treatment; but if, on the contrary, it be stiff and immoveable, any attempt to disturb it by motion will do harm. It should be let alone.

A relaxing and counter-irritating liniment is the following: Take Olive or Sweet Oil, two ounces; Castile Soap, one ounce; Spirits of Camphor, one ounce; Spirits of Ammonia, two ounces; Oil Turpentine, one ounce.—Mix. Bathe night and morning. And rub in well, by fire.

Rattlesnake Oil has an excellent effect, though, if used too long, it may weaken the joint for a long time after the ankylosis has been cured. Turtle's Oil,—I mean that of the Snapping Turtle,—has a peculiar virtue. Its long continued use is.

not so objectionable as that of Rattlesnakes Oil. I have known it to remove ankylosis of several years standing, without the aid of any other means than simple passive motion. It should be applied two or three times a day.

I have known some very bad cases to have been cured by the use of the liniments above directed, with the aid of the exertions of the patient at extension and flexion of the limb. Such means should always be thoroughly dried after removing the inflammation, and soreness. After having once extended it and removed all soreness, the patient should gradually begin to use the joint, and increase its use until it becomes strong.

VARICOCELE, OR SPERMATOCELE.—A varicose dilatation of the veins of the scrotum and spermatic cord, is called indiscriminately by these terms. When the spermatic veins are affected, the tumor is soft, knotty, doughy, unequal, and compressible, increasing from below upward. The disease requires no special attention, save a careful regard to gygienic habits; occasional sitz-baths, or the ascending douche, with the use of a suspensary bandage. The testicle must always be suspended, so as not to pull upon the cord in the least. And as much compression applied as the patient can bear.

HÆMATOCELE.—This is the name given to a swelling of the scrotum, resulting from a collection of blood instead of water in the tunica vaginalis. The extravasation, however, may be in the tunica albuginea (within the vaginalis) or simply an effusion into the cellular membrane of the scrotum. The external parts are often thick and dark, somewhat resembling gangrene. It may result from blows or other injuries of the scrotum or spermatic cord. A frequent cause is the wounding of some large vessel in operating for Hydrocele.

The diagnostic symptoms from hydrocele depend on its greater solidity and weight, and being neither transparent nor fluctuating.

The treatment should first be directed to arrest any inflammation that may be present. The local means may be fomentations, and steaming, (for this see white swelling), followed by the cold suspensary compress. Emetics, and other general means must be made use of to lay inflammation. Also, hydra-

gogues, &c. In some cases the scrotum may be laid open and the vessel tied, if other means fail to give relief, or stop the bleeding which may be caused by injuries, &c.

SARCOCELE.—This term is variously applied to a schirrus, or cancerous, encysted, or fibrous tumor of the testicle, and to a simple enlargement as a consequence of mal-treated chronic inflammation. When the tumor is malignant, castration should at once be performed, before the other parts are affected.—Otherwise, when it is a non-malignant tumor, it may be reduced by the remedies recommended for the preceding maladies. If it should be a schirrus or cancerous tumor after castration, treat as in cancer, &c.

HIERNIA HUMORALIS.—This term is applied to “soft or swelled testicle,” or “fungus testicle.” This may be a hardened tumor which is at first confined to the epididymis, the pain extending along the cord to the loins. The latter is frequently the result of a suddenly suppressed gonorrhoeal discharge. The former variety requires cold, and the latter warm water treatment at first, to be followed by cool, and finally cold applications. The treatment recommended in Hæmatocele and this may be almost identical. If the disease continues for a long time, a permanent enlargement of the testicle is the consequence. This must be treated on general principles, with compression to the scrotum as much as the patient can bear.

CYSTIC SARCOMA.—This is a hydatid, or—a clear cyst or bag containing a transparent fluid,—disease of the testicle. It occurs chiefly in middle life, and is sometimes mistaken for hydrocele; but the oval shape of the tumor will readily distinguish it from that affection which is pyriform. The morbid mass consists in part of a solid structure, and partly of cysts of various sizes, containing a thin, transparent, yellow serum, or a turbid fluid. This must be managed like the scirrhus or malignant tumor of the testicle. Castration is the best remedy.

ENLARGEMENT OF THE PROSTRATE GLAND.—

In this affection the gland often attains many times its ordinary size, and is much harder than natural. It produces but slight difficulty in urination, yet it prevents the bladder from being completely evacuated, and the urine is, in consequence, rendered constantly turbid. Total retention of urine, however, is liable to occur if the swelling is aggravated by any excesses to which the patient is addicted. There is a sense of weight in the perineum, and the middle lobe of the gland usually projects into the bladder, altering the shape and direction of the urethra, and rendering the passage of a catheter or sound more or less difficult. The disease is usually caused by calculous concretions or venereal affections.

Treatment.—Frequent hip-baths, and a thorough employment of the ascending douche are the ordinary local appliances; also daily pack, and rub-sheet, &c. When it is produced by repelling or suddenly drying up a gonorrhœal discharge, warm hip and foot-baths must be assiduously employed until the discharge re-appears or the irritation subsides; for this purpose the steaming and fomentations would answer very well; and the alcoholic vapor-bath, instead of the pack. Dr. Hill recommends the irritating plaster over the perineum to cause a free discharge, for a month or six weeks, &c.

CHAPTER V.

ULCERS.

ULCERS are purulent solutions of the continuity of the animal texture. Ulcers in a general sense, are distinguished into healthy, malignant, indolent, and irritable, &c. They are also sub-divided into many varieties, according to their causes, nature, tendencies, consequences, &c. As simple, sinuous, fistulous, fungus, gangrenous, cancerous, scorbutic, syphilitic, scrofulous, inveterate, (playedenic,) virulent, sordid, carious, varicose, &c. Many tumors, if not arrested in their early stage, become ulcers, as cancer, carbuncle, &c.

AN ULCER—Is called healthy when its purulent matter or pus, is a normal secretion unattended with the destruction of the surrounding parts. Its surface is florid, its granulations are small and of uniform size; it is without offensive smell; and it heals regularly, leaving little or no scar. A common boil is an example.

AN IRRITABLE ULCER—Is very tender to the touch; and liable to bleed; its discharge is slight, and of a thin, ichorous, or sanious appearance; its color is dark or purplish; the parts around are red, swollen, and often œdematous.

AN INDOLENT ULCER—Is in almost every particular the opposite of the irritable. Each can be best studied in opposition with the other. Reverse the definition of the one and you will have the other. Its edges are inverted, rounded, thick, glossy,

and regular; the granulations are of a dull pale aspect, and insensible; the pus is thick of a dark yellow color, and adheres to the bottom of the ulcer. Indolent ulcers most frequently occur on the lower extremities, and much oftener in males than females.

A VARICOSE ULCER—May be either irritable or indolent; they are connected with enlargements or varices of the adjacent veins. These are generally situate below the knee.

FISTULOUS ULCERS—Are sinuous cavities, having a narrow outlet, the disease being kept up by an altered texture of the part.

SPECIFIC ULCERS—Result from some specific inflammation or disease, such as scrofular, syphilis, salivation, &c.

GENERAL TREATMENT OF ULCERS.—The constitutional treatment is always of primary importance in chronic ulcerations of every kind, and all kinds. The patient in all cases must be held to a strict diet. The whole skin must daily, at least have one thorough bathing, and an occasional pack in the wet-sheet, &c. The local medication must vary according to the character of the ulcer. The healthy ulcer needs nothing more than a cool wet cloth. When the irritable ulcer is painful, the limb or parts may be steamed, with the “bitter herbs.” The best way is to place it over a vessel, into which the ingredients are put with boiling water and vinegar, steam being kept up by hot bricks, covering the whole with a blanket to prevent the escape of the vapor. Keep this up for at least an hour, and repeat the operation once or twice a day. Meantime bathe the affected limb with some stimulating wash; one composed, for instance, of one ounce each of the tinctures of Cayenne Pepper and Camphor; this liniment should be applied each time immediately after the steaming, and covered

by the rolling compress, this must be a bandage or roller of about two and a half inches in width. Begin with it at the extremity of the great toe, so as to compress it equally all round, and so continue upwards, compressing equally the whole limb from the very extremity, to the certain spot necessary. Around the or in the hollows of the ankle put compresses to fill up evenly, and thus continue. If you fail in applying this bandage correctly, it may do a great deal of injury. Vice versa it will do a great deal of benefit. Even cold water compresses (in the same manner) may be used in place of the stimulating liniment, but these must be more frequently changed, say every three or four hours during the day. Also, freezing the ulcer may be made use of if the patient can bear, followed by the compressing roller.

On the other hand "Indolent Ulcers" often require the application of the vegetable caustic, filling or completely covering the ulcer with it, and then putting on a slippery elm poultice. This dressing should be renewed as often as every ten or twelve hours. Here, the compressing bandage or roller must be made use of as in the above manner.

Varicose ulcers require still the stronger compression, and treated according to the character of it.

Fistulous ulcers generally require to be opened with the ligature or destroyed by the caustic potash.

FURUNCULUS.—A boil or bile is a small inflamed tumor, seated in the dermoid texture or skin, and tending to a pointed tumor sooner or later breaks and discharges a white or yellowish pus, mixed with blood. The only medication necessary is the wet dressing, and should the tumor not open spontaneously when matter has evidently formed, it should be punctured with a needle or lancet, but never lance it too soon or it may give the patient a great deal more trouble than if you would have let it alone, and continued the cold cloths dressings, which must often be repeated or it may in some cases be better to mix a little slippery elm flour in cold water and apply, or fresh yeast and rye shop mixed up cold to make a poultice or plaster, and apply. Never let these applications get dry on the parts.

PARULIS.—The common gum-boil is a small abscess which frequently forms in the gums. It is sometimes owing to carious

teeth, but is generally produced by bad dietetic habits. Those who eat coarse vegetable food, and use the tooth-brush daily, are seldom troubled with such affections.

FEVER SORES.—The most common form of chronic ulcers are known as “fever sores,” “whisky sores,” &c., and sometimes, in view of their usual locality, “old sore legs.” They are generally connected with, and the penalty of, intemperate habits. I have known several bad cases among the children of liquor-drinking parents, “says Dr. Trall.”

The ulcers are deep, the limb is swollen, in some cases nearly as hard as bone, and frequently purple or dark. The character, portions being irritable and others indolent.

Treatment.—These cases require a long course of treatment, but can be cured, provided the patient will sign and then keep the temperance pledge. When they are painful, they are to be soothed with the steaming, fomentations, or before said poultice; when hot and inflammatory, the cold douche, or water dressings should be applied to the whole limb daily. Callus or fungus excrescences are to be destroyed by the unslacked lime or caustic. Also the roller bandage must here be used, as before said. It must be applied twice a day; mornings and evenings; and thoroughly wetted with cold water after it is applied, or which I prefer, first, before applying the roller, apply a wet-cloth or towel around the whole limb, and over this the roller, also the ulcer should daily be froze a little, if the patient can bear it. Also, never forgetting the principal indication, which is the daily constitutional treatment; to fulfil these constitutional measures, nothing is better calculated, than our Hydropathic Hospitals or Institutions. Here the patient will be obliged to eat such food as will be healthy, and have his good air, bathing, and other attendance. Dr. Trall remarks—It is a prevailing opinion among drug physicians, and a popular prejudice with the people, that it is dangerous to cure old sores. Truth, “they say, lies between two extremes.” The truth in this case as in all others, is at one extremity. It is always dangerous to heal then drug-opathically, but never dangerous to cure hydropathically. For this reason drug-opathically will drive in, and thereby put some other part or organ under disease; or in other words, run one disease into another and aggravate the whole system, which will at last prove fatal. But on the contrary, or hydropathically the enemy will be expelled, and the ulcers cured. For any man that knows the least of hydro-pathy, can very easily comprehend it. Why do we hydropaths

cure what the allopaths spoil, or in other words poison with drugs? Because we drive morbid matters out, and they introduce them. In this way they keep us agoing.

NECROSIS AND CARIES.—These terms are often employed synonymously; but in strict surgical conversation, caries is an ulceration of the bony structure, similar to gangrene of the soft parts; while necrosis is the death of the bone, similar to mortification. Caries usually attacks the spongy bones, as the vertebræ; and necrosis generally affects the long or flat bones, as the tibia, humerus, and bones of the cranium.—Necrosis in the leg or arm is generally called “fever sore.” The process by which dead portions of bone separate from the living—similar to sloughing of the soft parts—is called exfoliation.

The general causes to be noticed, in our day, are the syphilitic, mercurial and scrofulous affections. Thousands have died from the two former being confounded.

Any cause which prevents the proper nourishment of the person may lead to necrosis; also an injury which simply removes the periosteum. In such a case great care should be taken to prevent inflammation of the bone, as it will be much more liable to proceed unfavorably than when of “spontaneous” origin.

Symptoms.—The bones though insensible in their healthy state, become exceedingly painful when diseased. The swelling has no regular apex or point, but is more distressing than ordinary inflammatory swellings, especially at night. The inflammation arising from the causes which excite necrosis, may be either acute or chronic. It is chronic when it begins and passes through its different stages slowly, and when the mildness of the symptoms may led us to mistake the nature of the case. The part is hot, somewhat livid, and sometimes comes on suddenly and progresses rapidly to suppuration. The pus is dark, sanious, and fœtid, and generally discharged through several fistulous openings or pipes; and through these the rough, uneven surface of the bone can be felt by means of the finger or common probe. There is more or less fever which is of the hectic character. When necrosis occurs in the centre or shaft of the long bones, it seldom or never extends to their articular extremities; but the exterior layers form a canal around the dead portion, which is called sequestrum; and between these swollen layers and the sequestrum suppuration takes place.

Prognosis.—Under our treatment, is generally favorable; nearly all cases, even in their advanced stages, being curable without an operation.

Treatment.—First step is to assist nature, and avoid all unnecessary interference. Here, as every where remove causes and obstructions, and let nature proceed with her remedial work. In its forming stage the disease can generally be “discussed” by douching the part frequently, and a constant application of wet cloths, and one or two packs daily, or the alcoholic vapor-bath may be preferable to reduce inflammation and thereby discuss it.

But we may, like in felon, cauterize deeply with the caustic potash, as nearly as possible over the point where the inflammation first manifested itself. This issue or part cauterized after the eschar has sloughed off, may be kept in active suppuration by the use of the irritating plaster. This may be followed up with discutient fomentations and poultices (such as lobelia herb pulverized and wet with vinegar to which may be added a little slippery elm to render it adhesive). One of the best poultices I have ever seen applied “says Dr. Hill,” is made of white beans, pulverized and wet with boiling vinegar and water. It seems to exert quite a specific influence in discussing inflammations, especially in scrofulous subjects. I have used this bean poultice in cases where all other means failed, and where the parts appeared to be approaching gangrene, with complete and prompt success. HILL.

The alcoholic vapor-bath is of great value in these cases.—While these local means are used, go on with your constitutional treatment. Internally, an occasional mild Physic as the Anti-Bilious Physic, also the Alterative or Scrofulous Syrup must be used, and tonics, if there is debility, as the Restorative Wine Bitters; at the same time if there is pain the patient must use diaphoretics of an anodyne character, for this the following is well calculated:—Take Pleurisy-root, one ounce; Ladies’ Slipper, one ounce; Prickly Ash bark, (not berries) one ounce. Mix, and make a strong tea, and drink freely during the day, either cold or warm as indicated. The patient have a daily alkaline bath, &c.

When a portion of the bone dies, nature attempts to throw it off, by exfoliation. This process is much slower than the corresponding one, called “sloughing,” of the soft parts. All rough treatment, all unnecessary handling of the affected parts flesh or bone, is to be avoided; and the patient put to as little pain as possible in dressing and treatment.

If the discutient course has failed, and ulceration is in progress, keep the ulcer freely open. When a portion of the bone is known to be dead, lay it bare by penetrating to it with the

caustic potash, if practicable; if not, enlarge the opening to it by a weaker solution of caustic potash, or by the sesqui-carbonate or vegetable caustic and tents. Expose it, as far as practicable to the action of the atmosphere. If it has separated, remove it, provided you can do so without too much force. Keep down inflammation by the remedies before recommended. Should there be more than one ulcer or opening, bring them together if possible, by caustic or the ligature. The ligature is preferable. When you can discover sinuses leading from one opening to the other, introduce a probe armed with a ligature into one, bring it out at the other, tighten it, and continue to do so from day to day, till it has cut through. This is sometimes impracticable, in consequence of the sinus winding through a portion of bone. In this case, make a caustic issue, extending from one sinus to the other. It may sometimes be done along the tibia from six to ten inches, if needed. The bone between the two ulcers is thus laid bare. If these measures are attended to, together with the application of emollients or local stimulants, the dead bone will soon exfoliate and come away; healthy granulations be thrown out to fill its place, and the disease be "cured."

After having removed the soft parts, as above directed, or if that cannot be effected, owing to the irritability of the patient, inject into the sinuses a strong solution of the vegetable caustic. Insert around tents, also pushing them as high up as you can; having the same substance inclosed in twisted cotton or flax, to dissolve slowly and act upon the diseased bone, as well as upon the proud flesh which is constantly forming.

If, during the treatment, you discover a portion of dead bone, loose at one end and adhering strongly at the other, no violent means should be resorted to for its removal. Simply raise up the loose end and crowd in tents under it, so as to bring a continuous but gentle pressure to bear on it. Increase from time to time, until the separation is effected. After you have all the dead parts passed off, dress the ulcer with black salve. If, however, it does not heal readily, you have evidence of more diseased bone being there. And, thus proceed as before, and bring it away. When the old bone is encased with the new, separate them from each other, with the caustic and tents (and the same applied in cotton,) as before said. Renew once or twice a day.

FISTULA IN ANO.—Any abscess about the rectum, opening either within or without the anus, or both, is known by the term, fistula in ano. Fistula in ano are usually connected

with piles, and both have habitual costiveness as their common cause, although the former is sometimes caused by wounds and injuries. Fistula in ano usually commences with a phlegmonous swelling or tumor near the anus or rectum, attended with great pain, hardness, and acute inflammation. In this stage it is often connected with piles. The tumor advances slowly to suppuration, and an abscess or collection of matter is formed.

The term "fistula" is applied to all ulcers that have a long passage and narrow opening, through which the products of ulceration or the contents of natural cavities find exit. It is this latter circumstance, or their opening into some cavity of the body, that more strictly distinguishes "fistulas" from other "sinuous ulcers."

Of fistulas generally, it may be observed that they are ulcers of an obstinate character, having no tendency to heal, their sinuses being fortified by callous growths, though almost always exuding a sanious matter, or suppurating unhealthily.

"Fistula in ano" is therefore, understood to imply the result of any abscess about the rectum, which has opened either just within or without the anus, or both on the external surface and into the bowel. The last condition is necessary to constitute "Complete Fistula," an open communication from the outside of the body into the rectum; one end of the ulcer connecting with the cutaneous surface, the other with the mucus.

The "Incomplete or Blind Fistula," may connect by its open end either with the skin or the gut, being thus either a "blind external" or "blind internal fistula." The sinus, or fistulous pipe, is very rarely simple or straight. In a majority of cases the fistulous pipe, or sinus, is tortuous and branching, several distinct openings being internally connected. The sinus is with a semi-cartilaginous, or callous growth, having the secreting property of mucus membrane, from which exudes a thin yellowish pus; this indurated surface is generally extremely tender to the touch.

Treatment.—The first process is to subdue the inflammation and overcome the irritable condition of the ulcer, for which purpose frequent warm hip-baths with the wet compresses, must be employed; also steaming and fomentations may be made use of "as recommended under the head of white swelling," after which the exact state of the cavity may be ascertained by the probe. If there is evident fluctuation near a convenient part of the surface, open freely with caustic potash. Have an orifice large enough for all the pus that has formed to pass out as readily as possible. When this has happened, and every thing is favorable, heal up as soon as you can, taking care not to allow the surface to heal before the abscess fills up. The abscess should be cleansed daily with soap-suds, and if it manifest the least disposition to become indolent, stronger alkaline

lotions must be resorted to. Compressing must be kept up, if practicable. You will seldom be called to prevent fistula. And therefore if we have the True Fistula, with hardened pipes, pouring out sanies, instead of good thick pus, something more will be necessary. The general health will then have to be regarded. Costiveness must be prevented, by a mild physic at first; the bowels being afterwards kept regular and rather loose, by attention to diet above; and if that is not sufficient, injections or aperients must be given as the Anti-Dyspeptic Pill. If the lungs are affected, as is apt to be the case, they must be treated according to the symptoms, or as if they had taken on disease independently of the fistula.

The alcoholic vapor-bath, with the alkaline bath and friction, to the whole surface, &c.

Treatment of confirmed Fistula.—The first thing is to ascertain as precisely as possible the magnitude, direction and the number of sinuses. The probing, however, for this purpose may have to be delayed in consequence of the irritable condition of the parts. In such cases make use of steaming, fomentations, or emollient poultices, these must be used two to four times a day. Keep the patient perfectly quiet. The bowels should be gently moved by a mild physic or injection. After a while the patient will be fit for probing, having thus ascertained the state of the case—if the fistula be already “complete,” and large and direct enough for your purpose, arm a common silver probe with your ligature. For this purpose, the best material is saddlers’ silk, doubled. Pass your threaded probe from the external to the internal orifice. When it is through, turn the outer end a little upwards, that the other may be seized by your finger in the rectum, and the string brought down. By separating the nates, you may be able to see the end of the probe and ligature; or the rectum may be dilated, and the operation facilitated by the Speculum Ani. The two ends of the ligature are to pass through and large vial cork, separating three-fourths of an inch where they emerge and passing over a little wooden roller, fitted to radial grooves cut on the end of the cork.—These notches will hold the stick, after turning or twisting, like the fall of a windlass. The surface is thus less irritated, the pressure of the cork being more equable than any “toggle” fixed there. If there are several sinuses, they should all, or the principal ones at least, be treated in the same manner.—While the ligature is on, the parts should daily be fomented, or steamed and fomented, and every sinus thoroughly injected two or three times a day with our usual alkaline lotion. The caustic powder should also be inserted, by means of pledgets of lint. These must be “crowded in,” and allowed to remain till the next dressing, that the caustic may gradually dissolve, and have its proper effect upon the cartilaginous growths. As soon

as the ligature has cut its way completely through, foment and poultice, continuing the caustic applications, completely filling whatever fissure may remain with the armed tents. Every part will then heal rapidly, when the restoration is nearly complete, and but little matter discharged, the parts feeling soft and natural, the poultice and fomentations may be dispensed with, and the black salve, or some other simple dressing, substituted. If your case be a "blind internal fistula," ascertain the point where it approaches nearest the external surface. Open with a pointed probe, or by caustic potash, and having it thus "complete," proceed as before. But, if it be a "blind external fistula" it need not always be made "complete." By the the measures before directed, and particularly the persevering use of the armed tents, it may very often be cured without the ligature. If, however, it be a very bad case, and remain obstinate or get worse, probe clear through the bottom of the sinus, into the rectum; bring the ligature out; and proceed as before directed for "complete fistula." It must be remembered that the elm poultice or bean poultice (kept on by a "T" bandage) should be used over the affected parts during the whole of the caustic treatment. It may require from three to six months to cure a bad case of fistula. This is exactly the same treatment as "Dr. Hills." And this is the only permanent treatment or cure.

FISTULA IN PERINEO.—By this disease, we understand an abscess which terminates in a fistulous sinus into the perineum, and penetrates the urethra, which carries the water off from the bladder. There is an opening then from the perineum into the urethra, through which the urine dribbles when the patient makes water. It is a frequent consequence of urinary abscess and extravasation.

Symptoms.—This species of fistula commences with great pain, swelling, and inflammation in the perineum, often by the urine becoming extravasated into the cellular texture in the vicinity of the urethra. Suppuration and sloughing now follow, and there is left a fistulous opening, or ulcer, through which the urine discharges. The parts around and in the sinus are sometimes as tough and as hard as ligament; and the orifice is sometimes very small, and, if not cured, will continue opening during life. In the integuments of the perineum and scrotum, there are abscesses and sinuses running in various directions, and they are knotty, hard and irregular, with one or more outlets for the urine.

Causes.—The disease mostly caused by stricture in the urethra, also by accidental injuries, &c.

Treatment.—After the stricture has been removed, or the urethra dilated, as the case may be, a gutta percha catheter should be introduced into the bladder, and worn constantly; the hard, callous edges of the ulcer are then to be disorganized by the repeated application of the mild caustic, or caustic potash, if necessary. Before applying the caustic, the parts should be soothed with warm fomentations, or steaming, &c., as was recommended in “fistula in ano.” And if the urethra is too irritable for the constant employment of the catheter, the patient should keep on his back while it is withdrawn, taking care to have the instrument introduced before he rises, so that the bladder may be emptied allowing any urine to come in contact with the ulcerated parts. Constitutional treatment must not be forgotten, but must be used as generally indicated.

FISTULA OF THE VAGINA.—From various causes, occasionally there is an opening through the vagina to the bladder, urethra or rectum, which constitutes very distressing diseases. Vaginal fistula, then, assumes three forms: vesico-vaginal, urethro-vaginal, and recto-vaginal. Vesico-vaginal fistula is that form of the accident in which an irregular communication exists between the vagina and the bladder, through which the urine enters into the vagina and constantly flows out, involuntarily. This form, which is decidedly the worst, is usually occasioned by the detachment of a slough, the consequence of long-continued pressure of the foetal head in the excavation of the pelvis, during difficult and laborious labors; by the unskilful use of obstetrical instruments; by the ulceration from the lodgment of foreign bodies in the bladder; by abscesses; by venereal ulcerations; by cancerous ulcers, situated on the neck of the womb, &c. The situation of vesico-vaginal fistula is very various; in some cases the orifice is about one inch behind the mouth of the urethra; some times further back, at other times, finally, as high up as the os uteri. The constant passage of the urine into the vagina must necessarily produce considerable irritation, and even inflammation; the external genital organs, the perineum, inside of the thighs, and the legs, and exposed to the same injurious actions. The patients complain of a most disagreeable burning and itching sensation, which often compels them to scratch themselves until the blood comes forth, and thus aggravate their sufferings.

Vesico-vaginal fistula may sometimes be cured by very simple means.

Urethra-vaginal fistula is that form of the accident in which a preternatural communication exists between the vagina and the urethra. This form is not so bad as the preceding, because the urine does not flow usually except during the voluntary expulsion of this fluid, which escapes partly by the meatus urinaris, and partly by the accidental perforation. It may be produced by the same causes which produce the former.

Recto-vaginal fistula is that form of the accident in which a fistulous passage communicates between the vagina and the rectum. This accident is usually the result of laceration of the septum, between the vagina and the rectum, by the rash use of instruments, or by tearing in the natural efforts of parturition. In such cases, the fœces when solid are expelled, in part, through the vagina, and in part through the anus, but only during defecation or going at stools; when the fœces are fluid, however, they escape involuntarily through the fistula, and pass out by the vulva.

Treatment.—This is pronounced an incurable disease of the bladder and vagina, but, by a judicious and persevering course of treatment we may succeed in effecting a cure. The vegetable caustic, must be applied, either in solution or powder to the diseased surfaces or part. In some cases, it may be necessary to use the speculum to apply it. This must be repeated once or twice a day, or as the patient can bear them. Injections up the vagina and rectum of cold or warm water are very excellent, and hip-bath, &c. The Diuretic drops or pill may be given internally, also alteratives, &c. These “fistulas” should be treated on the same principles as laid down under “fistula in perinco.” In some cases, it may be necessary to use a catheter to draw off the water; at the same time a oiled sponge may be introduced into the vagini, and the bowels must be kept very loose by aperients or injections. Lint may be applied after the vegetable caustic to prevent excoriation of the surrounding parts; the constitutional treatment must also be adopted. In recto-vaginal fistula, a sponge must constantly be worn in the vagina, to prevent the course of the passage through it; the bowels regulated as before said, &c. If the sinus does not close after a reasonable time let it be treated the same as the vesico vaginal fistula.

SALIVARY FISTULA.—Wounds of the face, which sever some one of the excretory ducts of the salivary organs, are often followed by an artificial opening, and thus we have fistula of the parts. The fistulous opening, out of which pus as well as the saliva secreted by the gland is constantly passing, con-

tinues to be sore and painful, and is a source of great annoyance to the patient, both on account of the discharge and the disfigurement of his face.

The Proper Treatment consists in allaying the irritation and inflammation, and opening a passage for the saliva into the mouth, so that the fistula may be allowed to heal. For the former purpose, steam or foment the part two or three times a day, and apply an elm poultice in the intervals, wet with warm milk and water, or cold water. If there be much hardness or callus, apply the mild caustic in solution, or powder, or both, as required, until all induration has disappeared. When the parts become healthy, make an opening with a small trochar, or a diamond-pointed steel probe, from the inside of the Buccinator muscle, at or near the original point of opening for the duct. In making the orifice, pass the trochar into the open end of the duct or tube at the fistulous opening. Insert a silver or gold tube from the mouth into the duct, so as to guide the saliva into the mouth. This tube should be long enough to pass for an inch into the duct, so that it will not be liable to come out into the mouth. The fistula may then be readily healed, generally requiring only simple dressings. But if it does not heal kindly, apply the mild caustic until the callus is removed, and then the edges may be brought together with adhesive straps and united. The canula should be left in the duct until all the parts are sound and healthy, and then removed. The continual flow of saliva will then prevent any danger of a closure of the duct.

FISTULA LACRYMALIS.—In the true lachrymal fistula, the lachrymal sac is distended to a tumor at the inner corner of the eye, which ulcerates and forms an opening through which the tears are discharged on the face, instead of passing to the nose. There is also a morbid secretion of the sac distinct from the tears, for which the mild caustic may be necessary.

Treatment.—If obstinate and indurated, inject a solution of the vegetable caustic, but, if irritable and inflamed steam or foment the part and in the interval apply an elm poultice, tents are sometimes necessary. And a general course of daily bathing, &c.

CHAPTER VI.

ABSCESSSES.

AN abscess—aposteme—is a collection of purulent matter in a cavity, or in the substance of an organ or part of the body. Sometimes the pus is contained in an orbicular cavity lined by a cyst, and sometimes it is infiltrated into the meshes of the areolar tissue. The formation of an abscess is often preceded by chills or shivering fits, called rigors; and just before suppuration takes place, the pain, tension, swelling, throbbing, &c., are increased. After matter is formed, a sensation of weight and throbbing continues in the part, and a conical projection soon denotes the pointing of the abscess, preparatory to its bursting and discharging its contents. Fluctuation may generally be felt in the swelling previously to its pointing. In order to distinguish the fluctuation of an abscess to the best advantage, two or three fingers should be placed on one side of the swelling, and the opposite side briskly tapped with the fingers of the other hand.

The general treatment of abscesses is precisely the same as that of inflammatory tumors and ulcers, preceding the formation of matter; after which, as a general rule, they are to be opened by cutting or cauterization.

EMPHYEMA.—This is a collection of matter in the cavity of the pleura. Inflammation of the lungs or of their membranes occasionally result in suppuration, producing the abscess under consideration. It is known by a manifest enlargement of the side affected; a dry, tickling cough; laborious breathing, which is easiest in the erect posture; fired pain in the chest, with difficulty of lying on the sound side.

Treatment.—In a few instances the matter has found or worked its way into the bronchial tubes, and been expectorated, followed by recovery. An operation is sometimes necessary. Here an incision is made with the bistoury an inch and a half in length, through the integuments, usually at the upper edge, and a little behind the middle of the sixth rib; the intercostal muscles are carefully separated, and the point of the instrument passed in through the pleura costalis; a improved canula is then introduced, through which the matter escapes. This improved canula is made with an air valve, to prevent ingress, while it allows fluids to flow freely out. In the absence of such an instrument, it is well to place the patient upon the diseased side, immediately after the canula is introduced, and to take care to close this before all the morbid fluid is discharged.

MAXILLARY ABSCESS.—This disease is an ulceration of, and collection of matter in the antrum highmorianum of the upper maxillary bone. It is most commonly caused by an irritation of the lining membrane of the cavity, by decayed teeth. It may exist for years, passing for toothache.

Symptoms.—In the early stage, there is a severe pain in the face, just beneath the prominence of the malar bone, which continues in spite of all applications for its relief. The neighboring teeth frequently become secondarily affected, and are extracted without any relief. A considerable discharge of offensive matter through the nose, from the sinus overflowing, is in connection with the seat of the pain, another diagnostic symptom. In some instances the face gradually swells, and becomes very much disfigured.

Treatment.—The inflammation and irritation should be allayed by bathing and local steaming and fomentations, &c. Extract any decayed tooth or teeth as soon as possible. If all the teeth connected with the part are perfectly sound, you will be the more certain as to the source of the evil. No ordinary local treatment will then avail. There are in the early stages of almost all cases a determination to the head, a full, hard and frequent pulse, a general feverish condition, with costive bowels, and dry skin. First, then, we may give a physic, and then cause perspiration; here we may use the alcoholic vapor-bath, followed by the alkaline-bath with brisk friction over the whole surface, &c. Emetics may also be made use of, if the determination to the head is not too great. Our common emetic is the best aided by warm sudorific teas or warm water; continue the

nauseating for several hours before you get to vomit, but at last let him throw up freely. In the early stages, before supuration has proceeded far, it will often bring about resolution. But, when this cannot be hoped for, let no time be lost before you proceed to extract the second and sometimes the third molar teeth. Should the alveolus communicate with the antrum by a sufficiently large opening, you need not to drill through to the antrum; but, if this is not the case, proceed at once, and drill a hole about the size of an ordinary goose-quill, through the alveolus into the antrum. Any common drill may here be used, and the pain is slight. Then inject into the cavity some anodyne preparation, slightly stimulating, such as a combination of the tincture or infusion of hops, three parts; tincture of cayenne pepper one part. This may be changed for stronger solutions, as the vegetable caustic, to be thrown in freely once or twice daily. If it cause too much pain weaken it for a while, increasing the strength again as the patient can bear it. Alternately with this caustic solution may be (with great benefit) used, a strong decoction of white oak bark, to which is added an equal portion of the compound tincture of myrrh. In several weeks these means will effect a perfect cure.

But in cases that were of years standing, other means may be necessary. If it has not been done already, take out the teeth, (second, third, and perhaps better the first molars). In some cases the maxillary cavity may be divided into cells, when a communication through one alveolar socket will not be sufficient. A larger orifice than that before directed may now be required. To correct the foetar, inject pyroligneous acid once or twice a day, at first diluted. After one or two applications, it may be used pure, without much, if any, suffering on the part of the patient. A day or two's use of this article will, for the present, entirely counteract the offensiveness of the discharge. Then resort to the mild caustic solution, as strong as it can be borne, washing out the sinus with it at least twice a day; also inserting pledgets of lint, in which the dry caustic is enclosed, high up into the antrum. You may crowd them in so as to fill up the cavity. They should not be allowed to remain in more than eight or ten hours before being changed, and having the cavity washed out with the caustic solution, or with soap suds. Loose pieces of bones must be removed. These measures in the very worst cases will effect a cure, even if the bone has been effected to some extent. As a matter of course, the constitutional remedies never being forgotten. Here the scrofulous sirup should be given, and if the patient be much debilitated, tonics and a nourishing should be prescribed. Also daily bathing, as foot-bath, rubbing-sheet, and an occasional wet sheet pack, &c.

MAMMARY ABSCESS.—Abscess in the breast is sometimes the result of injuries, as blows, pressure, &c.; but generally it is the consequence of bad management or mal-treatment during the period of gestation, childbirth and lactation. This disease usually appears in four or six weeks after parturition or child-birth.

Symptoms—Are generally slight swelling in some part of the gland, with throbbing pain, which is soon succeeded by a chill, and followed by more or less general fever. If suppuration is not prevented it will usually take place in about ten days, rarely sooner.

Treatment.—This distressing affection is a standing disgrace to the doctor, the nurse, the patient, and all concerned. It is produced by the most foolish stuffing, and slopping, and stimulating, and beating, and drugging, &c.; nor is the usual method of doctoring the disease, after it has been artificially produced, half as well calculated to cure the malady as to kill the patient. If promptly and properly treated, it can almost always be speedily resolved in its early stages. The constitutional treatment is more important than the local, and both should be made use of. The wet-sheet pack, or alcoholic-vapor bath, followed by the alkaline bath with brisk friction, also hip and foot-baths, &c. Local steaming or steaming the breast only, I find one of the greatest remedies I might say ever in use. The following is the process:—Heat a brick or two, place them on a board (so that they may be handled conveniently). Now get the woman to sit up in bed or on a chair, having her breasts opened, and this board with the hot brick on her lap, at the same time a shawl or blanket must be placed around her neck, and so hung as to cover the hot brick, now pouring on the hot brick, strong spirits of camphor, a sufficient quantity to raise a smart steam, and this continue for fifteen or twenty minutes each time; probably the brick had better be turned around after steam several minutes, as they may be warmer on the other side. This must be repeated as often as necessary, say from two to three times daily. Every time after steaming, the breast ought to be covered with a flannel, or a slippery elm poultice, and as much compression as she can well bear. Also a constant application of cold cloths and compress, very frequently renewed, and well covered with flannels, is an excellent remedy. But I have found nothing superior to the above process of steaming, as it allays inflammation and pain, and this acts like a charm. Let every one give it a fair trial in this miserable disease. It is simple and easy. I am afraid some of our simple and easy remedies, appear too simple to the nice, fashionable allopathic doctors, as it is much more fashionable to give a few dovers powders and calomel,

and bleed the patient a little, and let the patient suffer, to keep in business, &c. If it is an open ulcer, heat it like all other ulcers. Also constitutional treatment must be given, as the alcoholic-vapor-bath, &c., with alteratives, and an occasional physic of our anti-bilious physic. Also daily bathing, &c. Diet should rather be dry and nourishing. Never lance or puncture too soon, if you do at all. I prefer the caustic potash to open the abscess, &c.

LUMBAR OR PSOAS ABSCESS.—This is one of the most formidable and fatal of abscesses. It commences with a dull, heavy aching in the lumbar region; pains shooting down the spine and thighs, and a lameness in one or both lower limbs, with a difficulty of standing erect. A drawing up of the testicle of the affected side, with more or less pain along the spermatic cord; the patient is easily fatigued by exercise, and when lying down is disposed to flex the thighs or the abdomen. At length the local pain becomes throbbing, chills and night-sweats occur, a fluctuating enlargement appears along the psoas muscle, and the apex of the tumor presents itself immediately below the groin. The disease usually occurs in scrofulous persons, and is often connected with caries of the spine, in which case curvature of the spine and paralysis of the lower extremities are apt to result.

Treatment.—If found in the early or forming stage, this disease requires thorough constitutional treatment, of which the wet-sheet pack is the leading process. The diet must be strict, the bowels kept open by injections, and wet cloths constantly applied to the painful part, also steaming and fomenting the part, &c. If the treatment is not commenced early enough to prevent suppuration, the abscess, as soon as fluctuation is clearly detected, should be punctured to let out the matter. When the pus lies very deep, an opening may be made to it with caustic potash. After the abscess is opened, moderate compression should be kept up, and the water-dressing continued. Although lumbar abscess may be mistaken for a heruial protrusion, or the diagnosis may be difficult. The hectic fever is a clear symptom in this abscess, also when the patient stands up it is much more tense and firm. When he coughs the tumor suddenly enlarges, as if blown up with air. These peculiarities constitute the diagnosis from hernia. In cases of extreme doubt, a needle may be introduced into the tumor to ascertain the character of its contents. Air should be prevented from entering the wound. This constitutes the only danger, as it may produce excessive inflammation. It should always be dressed with a slippery elm

poultice after being opened, and compression kept up, as much bearing as possible, from above, downwards. When the flow of matter has entirely ceased, you may let the opening close. If the evidence of continued suppuration again appear, re-open; give it exit; and then throw in stimulating astringents. Your best mode of injection, in such a case, is by means of a common catheter, pushed as far as possible into the opening. If the opening be large enough, as those recommended to be made with caustic, the liquids you throw in will soon return, after having stimulated all parts of the suppurating surface. The catheter should be filled with the fluid to be injected, before being introduced so that no air may be forced up in advance of it. A suitable article for the purpose, is the compound tincture of myrrh, combined perhaps with the tincture of kino, catechu, &c. Keep the external orifice open until the abscess heal up internally. If this should not seem likely to occur under the use of these means, soap-suds may be injected; and should that not be sufficient, a weak solution of vegetable caustic gradually increasing in strength. But these latter articles are not often required. Whenever the matter re-appears after healing, open again and proceed as last directed. This is all that is necessary locally, but now we must come in, and never forget our constitutional means. Externally, daily bathing, as rub-sheet, foot-bath, &c., also occasional wet-sheet pack or alcoholic-vapor-bath, &c. Internally an occasional emetic of our common emetic powder, followed by a brisk physic, as the anti-bilious physic and in the intervals, the scrofulous sirup, and sometimes changed off to the alterative sirup, also tonics must be given if there is debility, here the restorative wine bitters, or tonic tincture may be used. If the kidneys appear to be affected give mucilaginous drinks, as melon seed tea, &c. Diet must be vegetable and nourishing.

HIP DISEASE, OR COXARUM MORBUS.—This disease, like the preceding, is seldom if ever cured by the regulars. It consists in an abscess originating from caries of the head of the os femoris; it generally occasions a dislocation of the joint (if not arrested) and a permanent shortening of the limb. The symptoms come on so gradually as scarcely to excite attention. Months may elapse before assistance is called for. The first thing complained of is very generally a slight pain in the knee, no doubt from some implication of the nerves leading to that part. On a close examination, it is found that the limb is slightly disfigured; it may be increased in length, which occasions the knee

to be habitually bent. The elongation itself is usually referred to a partial protrusion of the head of the femur out of the acetabulum. At this period the pain is referred to the groin, or, perhaps to the posterior surface in the region of the trochanter. By pressure on the trochanter major will give a great deal of pain. The pain will be great until relieved by suppuration, although many patients do not complain for considerable time. The pus does not make its appearance, till the disease has committed great ravages. Sometimes the head of the femur is entirely destroyed, a large abscess occupying its place, without any tendency to approach the surface at any particular point. It may finally open and discharge at different points about the hips; more commonly it directs itself to the groin.

Diagnosis.—When the pointing occurs in the groin it has been mistaken for psoas abscess; if the appearance of matter is not sufficient, a critical examination should enable the practitioner to determine the difference. In the hip disease, the character of bone pus will generally be observed in it. Force upon the trochanter, so as to press it firmly into the acetabulum, will often excite pain in the very early stage of the disease, before its existence is suspected. This last symptom is a sure diagnostic symptom.

Treatment.—If called to a case in the early or forming stage, you should arrest its destructive progress. For this purpose, immediately apply the irritating plaster, (see Pharmacy,) over the diseased hip, covering the sacrum and extending over the side as far forward as the front of the trochanter. It should extend behind from near the coccyx, up over the last lumbar vertebra, (so as to cover all the spine giving out nerves to the joint.) This plaster should be continued so as to keep up a free purulent discharge for a month or six weeks; or, after the first application of the plaster, the discharge may be kept up by two or three caustic issues, at different points about the hip, occasionally re-applying the plaster. As in all cases of chronic disease, daily bathing, wet-sheet-pack, or alcoholic-vapor-bath, and injections to regulate the bowels, &c., must be made use of. An active hydragogue cathartic, as the compound of powder of may-apple-root and cream of tartar, should be taken as often as once a week—the bowels, in the mean time to be kept open by small doses of podophylline or anti-dyspeptic pills; or injections. Alteratives will always be necessary, the “scrofulous sirip,” in connection with a tea of dwarf elder (*Aralia Hispidia*); this tea may be taken freely through the day. The object is to keep up a pretty free diuretic in connection with the purgative effect.

The foregoing course of treatment “says Dr. Hill” is abundantly sufficient to counteract the disease, and restore health,

if the suppurative process has not already advanced to far ; but if matter has formed, and not yet made its way to the surface, make use of poultices, steaming and fomentations over the whole hip, till there appears a tendency to point at some particular place. At this place open a caustic issue, to facilitate the exit of matter as soon as possible. As soon as this opening occurs, and a free discharge is the case, encourage it with yeast and elm poultices, adding anodyne applications if there be much pain or irritation. Here Stramonium or Jamestown weed leaves, and hops, pulverized and a poultice made of, in milk and water, also a little elm added. Also wash out the abscess freely, once or twice a day, with injections of soap-suds. You must also apply, in this stage of the case the irritating plaster all over the hip, in the manner before directed, leaving, however, a small space uncovered at the orifice of the sore, which may thus be dressed with something more soothing, and the dressing changed, and lotions applied, without having to remove the plaster. Let this counter-irritation from the whole neighboring surface, as well as the discharge from the abscess, be continued until the latter fully heals up. If the large plaster prove too "irritating," replace it occasionally with a slippery elm poultice, until the soreness is sufficiently lessened to bear a re-application of the plaster. After a few days, increase the strength of your wash, gradually dissolving in it, in addition to the soap, more and more of the vegetable caustic. This will soon destroy and bring away all fungus flesh or carious bone, and stimulate a healthy restorative action in the part. In some delicate and irritable patients, the cure may proceed very slowly. You may not, at first, be able to inject oftener than once in two or three days. Repeat the operation, however as often as the patient can bear it. Should there be several fistulous openings, each is to be treated in the same manner with strong injections and caustic tents; and, if they are connected, introduce a ligature, and, if they are practicable, bring them gradually together.— Let the patient if debilitated take tonics, and let his diet be of the most nourishing but unstimulating kind. Be sure never to carry your purging to the extent of weakening the patient, may be better in some cases only using aperients or injections to regulate the bowels. Rest is another important help. When we say rest, we mean, as little motion of the leg as possible, but exercise in the open air must, if possible, be taken by riding or walking with crutches.

If no dislocation has yet occurred, a suitable splint may answer the purpose. An improved splint can easily, and cheaply be made, which is by far the best of all now in use. This splint can so perfectly be fitted to the part, and is just as firm, and much lighter than wood. Get a piece of thick woollen cloth (old will do as well as new,) and saturate it in a solution of gum shellac (1 pound to a pint of alcohol). Expose it to the air,

and when the menstrum is evaporated, your cloth will be almost as firm and elastic as steel. Two sheets, however, may be welded together, by covering again one side of each piece with the dissolved gum, by means of a common paint brush, evaporating as before, and then pressing them together with a hot flat iron or tailor's goose. Three or four thicknesses of heavy woolen cloth thus prepared, will be as strong as any splint ever required for any surgical purpose whatever. Have your prepared material nearly of the size required, and then heat it at the fire or by dipping in scalding water until it is as soft and pliable as the original cloth. In this state, or after it is cool enough not to burn, you can, with two or three assistants, apply it to the parts, and fit it exactly by pressing it down closely to the surface, where, in the course of two or three minutes, it will stiffen. It will always retain the shape thus given it. No heat of the body can ever be sufficient to soften or weaken it. It should, however, be lined with cotton flannel, or some such material, to prevent its irritating the surface such lining may be fixed by a solution of gum arabic.

This shellac splint should extend from above the middle of the thorax to the ankle, reaching half way round the limb, and above nearly to the spine and sternum. It should be attached all the way by rollers or bandages, applied moderately tight.—It will bear being pressed on the surface much more tightly than any other material less accurately fitting. Should the thigh or leg be flexed, no force should be at first used to straighten it. The splint must be adapted to the limb in its easiest position, and re-fitted as often as the position of the limb changes.

With such a splint, so fixed, almost any desired amount of proper exercise can be taken, without risk to exciting the affected joint. Holes may be made in the splint to allow us to dress the opening of the abscess or ulcer, so that the apparatus need not be removed, except when the irritating plaster is to be changed. In adjusting the splint care must be taken not to apply too much pressure about the hip while it is still sore or painful; but when the disease has become more chronic and indolent, slight pressure, equally applied, is decidedly beneficial.

When the head of the femur is protruding, but not yet entirely dislocated, judicious pressure upon the trochanter may serve, in connection with the active revulsives directed, to restore the bone to its natural position, and the patient have the use of his limb again. This is precisely the same treatment as "Dr. Morrow," and "Dr. Hill," give, of Cincinnati, Ohio.

is a result of acute inflammation, and may be known by rigors, with swelling, heat, and redness of the perineum externally.— As soon as matter has formed, the abscess must be opened at once, lest the matter work its way into the rectum or urethra, this may be done with the caustic potash, or knife. After the matter has passed off, frequently wash out the abscess with soap and water; and if the patient's health is good it will soon heal. Gentle compression over the parts will aid the process.

CHAPTER VII.

HERNIÆ, OR RUPTURES.

THE terms hernia and rupture are commonly employed as synonymous; but writers who are strict in the use of language, apply the former word to all protrusions of the viscera or parts from their natural cavities, while the latter term is limited to abdominal protrusions. The word rupture, however, is always a wrong word, for it implies that something is burst or torn, which is not necessarily the case.

VARIETIES OF HERNIÆ.—These are innumerable.—They may involve the brain, lungs, stomach, intestines, bladder, the different portions of the peritoneum, and in rare cases, the liver, spleen, uterus, or ovaries. The parts commonly affected with hernia are the abdominal viscera; of these the intestines, or omentum, or both, are the portions usually protruded; and the abdominal ring, the navel, and a point at the inner side of the femoral vein, just below Poupart's ligament, are the places where herniæ most frequently appear. They are met with at almost all points of the linea alba, at the foramen ovale, the ischiatic notch, in the perineum, and in the vagina.

A Hernia, is the protrusion of any viscus from its proper cavity. It has obtained various names from its situation, as the inguinal, when it occurs in the groin; the scrotal, when it occurs in the scrotum; the femoral when it is situated under the crural arch, or Poupart's ligament; umbilical, when it occurs in the abdomen, or umbilical region; ventral, when it is situated in some other part of the parietes of the abdomen—frequently in the linea alba, but sometimes in the linea semilunaris—a very rare complaint; hernia congenita, formed by a protrusion through the abdominal ring into the tunica vaginalis testis, and can only happen in the cases where this cavity remains continuous with the general cavity of the abdomen. The protruded viscera are in contact with the testicle, the hernial sac

being the tunica vaginalis. There are some instances of the bladder and stomach escaping from their cavities and forming hernial tumors.

PATHOLOGICAL DISTINCTIONS.—In abdominal hernia the protruding part usually pushes along a portion of peritoneum, which forms a sort of pouch, and is called the hernial sac; the narrow part of which is the neck, and the expanded portion the body. The bladder and cæcum, however, not being contained in the peritoneum, do not have a complete sac; and in cases of wounds and ulcerations, the sac may be absent; nor does it exist in internal herniæ, in which there is really no protrusion at all. In complete or direct inguinal hernia, there are two necks, one at the internal and one at the external ring.

Hernia is called reducible when the displaced part is attended with no disturbance of the general health, and is susceptible of being easily replaced; when incapable of replacement, from its size or from adhesions, it is called irreducible or incarcerated; and when the incarcerated part is constricted and inflamed, obstructing the passage of fœces, and causing violent pain and sickness, it is called strangulated.

SPECIAL CAUSES OF HERNIÆ.—Surgeons tell us that blows, falls, violent exertions, as lifting, wounds, dropsy, abscesses, pregnancy, straining at stool, hard riding, severe coughing and sneezing, are the common exciting causes while debility is the general predisposing cause. All of these causes are favorable to these complaints, and some of them alone produce these, but the general and special cause is habitual costiveness. Without this predisponent condition, most of the other causes named would be powerless. Many persons, perhaps a majority in refined society, scarcely ever go to stool without being obliged to strain dangerously, to respond to the "solicitation of nature." And when the straining has been kept up for years, it is not remarkable that very slight accidents should cause the "bowels to gush out" of their natural inclosure in the shape of hernial protrusions. Some have estimated the subjects of hernia to be one eighth of an entire population.

DIAGNOSIS OF HERNIÆ.—In a reducible hernia the tumor may appear gradually or suddenly at some one of the points above named; its size is changeable, being larger when the patient stands, and smaller when he lies on his back, compression will diminish it; it is usually more tense after a full meal, or when the patient is flatulent; when the patient coughs, an impulse may be felt at the tumor, as if air were blown into the swelling. When the sac contains intestine only, the tumor is uniformly smooth and elastic, and also painful to pressure; when it contains omentum only, the tumor is insensible, and has a more flabby, or doughy, and somewhat unequal feel; and when it contains both—entero-epiplocele—a part of the contents of the hernial tumor will slip up with a gurgling noise, leaving behind a portion less readily reduced. Irreducible herniæ are distinguished by more or less difficulty in evacuating the bowels; colic pains are frequent, with a variety of dyspeptic symptoms. They do not usually occasion great irritability or inconvenience, but are liable of slipping one portion of bowels into another, and this is a dangerous and often fatal accident.

Strangulated hernia presents, first, an irritable condition of the parts affected, with a hectic flush externally, and a pain at the point of constriction; the pain generally extends to the diaphragm, followed by nausea, vomiting, obstinate constipation, rapid pulse, and general feverishness. The peristaltic action is often inverted, and fecal matters are ejected from the stomach. If reduction is not soon effected, the bowels become distended with air, the abdomen hard and tense, the extremities cold, while hiccough, clammy sweats, and a sinking pulse, with a sudden cessation of the pain, denote the existence of mortification and the approach of death.

GENERAL TREATMENT OF HERNIÆ.—In reducible hernia, the first thing to be done will be to return the protruded parts to their original cavity, by making gentle pressure upon the hernial tumor, and this is in general most easily effected in a recumbent position. After having thus returned the hernial tumor, maintain it there by a truss, or other suitable contrivance. In some rare cases, however, the contents of the hernia are so bulky, or the parts so altered, that it is advisable merely to support the tumor with a suspensory bandage, unless an attempt at a radical cure should be deemed expedient. In irreducible cases the strictest attention must be paid to the diet, which should be so managed as to obviate the least tendency to constipation. With this precaution, the use of a truss or

bandage, and the avoidance of all rough exercises, the patient may "live through life" very comfortably.

But when the reducible variety suddenly becomes confined, and in all cases of strangulation, the first attempt at relief should be by the taxis or hand operation. The taxis can almost always be successfully performed by any one who has a clear idea of the mechanism of the part and the existing obstruction. The patient is to be placed in a horizontal posture on the sound side—these directions apply particularly to inguinal and femoral hernia, other varieties not requiring special instructions—with the hips elevated, the chest inclined forward, the thigh of the affected side flexed upon the abdomen, and drawn toward the other, all of which is intended to relax the muscles and integument at and around the protrusion. The sac is then to be gently grasped, and moderately elevated and compressed with one hand, while the forefinger of the other hand presses as much of the tumor as possible up to and within the point of protrusion; the returned portion is to be retained while the middle finger pushes up another portion, when the forefinger may be again employed for still another portion; the middle finger holding the part it has brought up, or the ring finger may be used, while the others are both occupied in holding the advantage gained. In this way the whole tumor is to be removed.

In the external inguinal hernia, the pressure must be directed upward and outward, along the course of the spermatic cord; but in femoral hernia it is to be directed first downward and then backward. In umbilical and ventral hernia, the pressure is to be made directly backward. Violence must never be used, nor the parts handled so roughly as to occasion much pain.

Several circumstances, however, may interfere with the operation of taxis, or defeat its successful result, as extreme distention of the protruded intestine, great pain and tenderness, active inflammation, severe constriction around the neck of the sac, &c.; but these things should not discourage us. We have in cold water or ice, "says Dr. Trall," a suitable auxiliary for the first named complication; its assistance will often enable us to succeed at once. When the part is excessively tender and irritable, let your patient take an active emetic, followed by a brisk physic, as the "anti-bilious physic," or warm injections of the same as the physic, or emetic, with the addition of a small portion of tobacco, though in using tobacco there must be great precautions, on account of causing bad symptoms in some patients, while in others not the least are experienced. In injecting use a large syringe with a long pipe, and have the patient retain what is thrown up as long as he possibly can. The relaxing injections should be repeated once an hour, if not oftener. Steaming and fomenting the tumor should all the

while be kept up, the materials being lobelia and stramonium (the herbs) and elecampane (the root.) When you have brought about complete muscular relaxation, have the patient turned in the proper position, (if he is not kept in it all the time) and, still continuing your fomentations, "endeavor to effect reduction" as often as you can do so without causing pain. So long however, as there is much tenderness, attempts at the taxis have little chance of doing good, and may do much harm.

But the application of the large cup to the abdomen, is unattended with any risk of increasing the inflammation. The intestines themselves, it should be remembered, may be quite free from inflammation, though the integuments over the sac are tender to the touch. There is great danger of the peritoneum becoming inflamed, but this is not likely to be more in the natural than in the abnormal situation of that delicate membrane. Your relaxing measures should be kept up, even though your patient appear much prostrated. They may, however, be carried to an unsafe degree, and your judgment must be exercised in the question, according to the symptoms. There is no danger, however, with the articles recommended, of any such permanent prostration as follows from the use of tartarized antimony, &c. Should the strangulation be of some time standing before you are called, or continue intractable in spite of all you can do, so that you have reason to fear mortification—change, after awhile, your relaxing for stimulating and fomentations. A poultice composed of golden seal-root, and sumach berries, with a sufficient quantity of gum myrrh and capsicum or cayenne pepper, will be a good application. The same articles may be simmered in spirits, and cloths wet in such spirits laid over the parts. These applications may be alternated every hour or so with the former. At this stage means must be taken to sustain the patient's strength. If he appear to be getting faint, he should be drinking cold water, and his surface frequently bathed with it. A large cup, or any convenient vessel, may be applied to the abdomen, covering the umbilical region, in which a piece of burning cotton is placed to exhaust the air; the "suction" thus established will pull upon the protruded intestine while we may be pushing from without. Holding the patient's heels up, and head down, and jouncing him in that condition, has succeeded in "domestic practice," in reducing a rupture, of which Dr. Hill gives us an explanation. If, however, in some extreme cases, when the strangulation with inflammation has existed, despite the efforts to reduce it, for twelve or fifteen hours, the only chance for the patient is by the operation with the knife; yet this is very dangerous. And should be attempted only when all other means fail; and if the before means mentioned are thoroughly made use of they will seldom fail to succeed in effecting a reduction.

RADICAL CURE OF HERNIA.—Beyond the taxis for reducing displacement, and the operation for relieving strangulation, little or nothing has been done for this class of invalids in the way of regular surgery, while mechanical skill has generally been content to prevent further mischief by the constant application of the truss. But it has been noticed that in recent cases the pressure of a truss has sometimes excited adhesive inflammation in the parietes of the canal between the abdominal rings, or in the femoral sheath, and thus closed the passage against all future danger. Acting on this hint, others have succeeded in some recent cases, by keeping up as strong pressure as the patient could bear, by means of a truss with a large and hard pad, so applied as to compress the whole canal or sheath through which the viscera had passed. Professor Morrow & Hill, of Cincinnati, Ohio, have found a certain cure for Hernia. The principal agent is the irritating plaster, (see Pharmacy) and if this is made use of correctly, not one case has failed yet. The plaster made use of should be large enough to cover the whole canal or sheath—say from two to two and a half inches wide and from three to four inches in length—and the pad of the truss should be nearly as large as the plaster. The part to which the application is to be made should first be smoothly shaved; the plaster laid on carefully, the pad over it, and a truss brought to bear with considerable force, as much as the patient can bear. The compression, however, will have to be gradually lessened as the parts become tender. When the truss is taken off for this purpose, or to re-spread the plaster (which should be done every day) the patient must be made to keep perfectly still in a horizontal posture, with the thigh flexed upon the abdomen. After a while the truss will become too painful to be borne; when a large compress must be substituted, and carefully kept in place by bandages round the body. The patient had then better keep to his bed and on his back. When obliged to move at all, he should be directed to apply his hand to the compress, as a further security against accident. The purulent discharge excited by the plaster, so frequently renewed, will be considerable. If the pain and irritation should at any time be so great as to deprive the patient of sleep, or extend downward along the spermatic cord to the testicle, remove the irritating applications for a while and substitute a slippery elm poultice. The suppurating process should be kept up for from four to six weeks. Probably a shorter time would in most cases be sufficient; but it is better to err on the safe side. It is much better to let your patient suffer a week or two longer than run any risk, by giving up this essential part of the treatment a single day too soon.

During the irritating process, be sure never to let your patient become costive. A laxative diet must be given and if that

is not sufficient injections, or the anti-dyspeptic pill, given to regulate them. The surface may be allowed to heal as soon as you remove the plaster. You can dress it first if you please, with an emollient poultice, and then with simple cerate or black salve. As soon, however, as the healing process is sufficiently advanced to allow of stronger applications, make an astringent plaster, of the extracts of the bark of white oak and red beech, &c. A decoction of the oak bark or some similar article, may even be used as a lotion to the sore, before it is sufficiently healed to allow of the constant use of the plaster. The truss should be re-applied, as soon as it can be borne again, over the astringent plaster; and both kept on (the latter occasionally re-spread) for eight or ten weeks longer. All applications may then, as a general rule, be discontinued. The pressure, however, should be gradually lessened, before being entirely taken off, and the astringent applications continued for some time after that, tapering off perhaps with cold water.

Instead of those astringent applications you may use the oil of eggs, "which is preferable to the astringent preparations." A few drops of this oil must be rubbed on the parts, once or twice a day, after the removal of the irritating plaster. (This oil is obtained by simple pressure from the heated yolks.)

Always remember to keep the patient so as not to have any protrusion during the irritating process; the greatest danger is when the sore is most irritable. A neglect of this precaution, may be the cause of a failure of your whole cure, the parts concerned being even stronger and less liable to give way, than if hernia had never occurred.

UMBILICAL AND VENTRAL HERNIA.—Infants are most subject to umbilical hernia; the protusion is generally imputed to straining while crying, when the adominal bandage which is placed around the body is too loose. This is one among many great errors which have crept into professional men's minds. The truth is, that this bandaging the body is just what produces the rupture in a large proportion of cases. It is this that makes the child cry and strain; and the tighter the abused infant is girded with it, the more it will cry and strain, and the more liable it will be to have rupture. It sometimes occurs in parturient females from the muscles giving way during the powerful contractions upon the gravid uterus.

Treatment—Is the same in principle whether for an infant or an adult, and whether the accident occur at one point or another above Poupart's ligament. First, for the reduction of

it, place the patient upon his back with the thighs flexed upon the abdomen and the shoulders a little elevated.

In this position the protruded portion will generally return spontaneously. If not it can easily be pushed back by applying the fingers to the tumor. The taxis accomplished, apply a truss, under which a pad should be placed, made as follows:—Take a circular piece of the thick spongy portion of sole leather, of the proper size to cover the opening, and extend from one and a half to two inches all round it; excavate the fleshy side of the leather so as to make it regularly concave, the centre of the depression being about half an inch below the plane of the circumference. Place the patient in the position above described, and bring the parieties of the hole in the muscles in contact, so as completely to close the orifice by pressing from the sides, while the muscles are in this relaxed condition. The edges being thus kept in contact, apply directly over the point of protrusion, a layer of raw cotton or soft lint, wet in a strong decoction of white oak bark. The application should be just large and thick enough to fill the excavated surface in the leather, without causing any pressure. Apply your leather pad over it and secure it by a bandage passed round the body sufficiently tight to compress the muscles, and keep in contact the parieties of the hole. It is better to fasten the pad to the bandage before it is applied. This should be kept on six or eight days without being removed, unless it produce too much irritation. It should be wet once or twice a day with the oak decoction, by applying it upon the surface and allowing it to soak through the pad and cotton.

In infants a sufficient amount of adhesive inflammation will generally take place in three or four days to unite the parts; though this dressing should be continued for ten or twelve days, diminishing the strength and pressure gradually. But in adults the first dressing may be continued for a month, or more, or even it may be necessary to make use of the irritating plaster; follow up with the above said leather bandage or truss. The bowels must be kept regular and lax. Also, the dressing should never be removed when the intestines are full. If the patient's health is poor, general means must be used to restore it.

DROPSY OF THE SCROTUM.—HYDROCELE.—Hydrocel is an accumulation of water within the cavity of the tunica vaginalis of the testis, of the spermatic cord, or in the cellular membrane of the scrotum.

Symptoms.—An accumulation of a fluid is first perceived to commence at the bottom of the scrotum, which gradually increasing, the latter becomes enlarged and distended; a distinct fluctuation is generally to be distinguished; the tumor acquires a pyramidal shape; there is no pain nor discoloration of the integuments, and upon viewing the parts near to a strong light, a transparency is observable.

Diagnosis.—It is distinguished from other diseases by its shape which is constantly pyramidal, except where the patient has had a hernia, or where the disease has been taken for hernia, and a truss has been worn, when it acquires an oblong shape, and by its transparency; yet this criterion is rendered fallacious when the investing membranes have previously undergone inflammation, in which case they become thickened and impermeable to light, by the fluctuation of the contained fluid, by the tumor having first commenced at the bottom of the scrotum.

This disease may be distinguished from hernia by the tumor not dilating when the patient coughs; by the tumor in the one disease commencing at the top of the scrotum, in the other at the bottom; by the facility of returning the protruded intestine in reducible hernia, into the abdomen, from disease of the testicle, by the want of discoloration and hardness, and the absence of that irregularity to the touch possessed by schirrus: from hæmatocele, by the color and shape of the tumor, and by that disease suddenly coming on and being usually the consequence of accident; from anasarca of the scrotum, by the one being elastic to the feel, the other œdematous; the one pyramidal, the other irregularly shaped.

Treatment.—In recent cases, and in young persons in whom the absorbent system is active, you may sometimes succeed in effecting a cure by constitutional means, such as active hydragogue cathartics, diaphoretics, and diuretics, frequently repeated for a considerable length of time. Absorption may be aided at the same time by suspending the scrotum in a bag and a "T" bandage, and by stimulating applications to the surface. Stimulating astringents may be used to wetten the parts, as the compound tincture of myrrh, at first diluted and increased in strength, till the undiluted tincture can be borne. This article should be applied once a day, so as to produce a good deal of smarting and pain for a short time.

Pressure on the scrotum, as well as suspension of it, will generally stimulate absorption. For this purpose an Indian rubber bag is fix round the part previously covered with a layer of raw cotton, moistened with the stimulating lotion. This bag should be so small as to require considerable distension to get it on. Another improvement on the invention, is an elastic open ring at the mouth, which may be conveniently

pulled out at any time when it is required to re-wet the cotton. I have succeeded, "says Dr. Hill," by these new means in avoiding the operation and effecting a radical cure in severe cases. In slighter forms of the disease, I have always found it to be sufficient, not having failed in one such case. But in cases of long standing, where the quantity of fluid is large and the tunica vaginalis thickened and insensible, external and constitutional means will not be sufficient; you must then resort to the operation. The water may be drawn off in the following manner: let the patient be seated in a chair, when the practitioner will grasp a portion of the tumor at its anterior and inferior part, between his thumb and fingers, then with a scalpel or bistoury, cut through the integuments; through this cut, introduce the trochar inclosed in a canula, and push them on into the sac in such a direction as to avoid the testicle. This can be held up out of the way by the left hand, though the contraction of the cord on binding the part (which may be made more effectual by previously applying cold water to the scrotum,) will generally draw it out of danger. Withdraw the trochar, and push the canula further on into the sac, and fix it there until all the morbid accumulation has drained off, taking care to allow none of it to pass into the cellular tissue of the scrotum, where it would cause inflammation, and perhaps sloughing.

If you have no trochar and canula, all the parts may be cut through with your bistoury, and a catheter or any tube about the size of a goose quill will answer for the canula.

After having drawn off the fluid by means of your canula, inject through it brandy and water, port wine, or some other stimulant. This is to be left there until it produces considerable smarting or pain, then drawn off and let the canula be removed. Take care never to take away the canula until the injection is all withdrawn, or the membranes may contract upon and retain it, producing more mischief than the natural secretion you have removed.

After the removal of the fluid and canula, insert a tent or strip of linen, far enough in to remain, and keep up the inflammation; and prevent the orifice from closing. Every day after the water is evacuated inject into the orifice, a solution of Castile soap and water, to which a small quantity of the tincture of Gum Myrrh has been added, or some other astringent must daily be injected, when the tent is changed. It should be strong enough all along to excite a little pain. Should any inflammation follow the tent and injections, make use of warm fomentations, steaming, emollients, &c. It may even be necessary to use constitutional "antiphlogistics," such as emetics, and emeto-cathartics. One of the best local means in such a case is to let the patient sit over the vapor of hot herbs, after which emollient poultices can be applied until the inflammation has subsided.

Sometimes the hydrocele is connected with an indurated state of the testicle, which is called hydro-carcocoele. After the water has been evacuated, by examining the testicle with a probe, it will be found hard and insensible. The cure consists in keeping the orifice open, and injecting occasionally stimulating liquids, sufficiently strong to excite a slight degree of inflammation. For this injection our vegetable caustic, in solution, may be the best; this may at first be used weak, and increased in strength as the patient can bear. And dressed with a slippery elm poultice, (after having the lint introduced as before), these dressings must be changed as often as three or four times a day; the solution may be injected every second or third day, or oftener. After the inflammation has subsided the black salve may be used; you must keep up a suppurating process for a suitable time. While using these means the scrotum must be suspended, with the suspensory bandage.

CHAPTER VIII.

DEFORMITIES.

THE deformities which result from accident, disease, or malformation, are innumerable.

HARE-LIP—LABIUM LEPORINUM.—This signifies a congenital deformity or deficiency of the upper lip; it may be single or double; it may cause impediment in speaking, and difficulty in eating.

Treatment.—After the child has ceased to suck, and is about a year old, let the left sides be cut smoothly on each side, to the angle, with a pair of scissors or bistoury, or a flat piece of wood is placed between the lip and gum; and the edges are then pared off from both sides upon the wood with a scalpel or bistoury, leaving the edges straight like the shape of the letter V. The bleeding can be stopped by sponging with cold water, after which a thin sewing needle is passed through and across the fissure near its lower extremity; the needle must penetrate nearly to the inner surface of the lip, which will keep the inner edge together while the ligature secures the outer edge. After this the needle must be secured by the thread, which is done by a twisted suture and lapped around the needle, or pin in a figure "8." Now the part dressed with wet lint, over which a bandage is applied, and kept constantly wet with cold water. Adhesion will take place in one week, during which time the patient must be kept very quiet; after this time the needles may be removed and adhesive straps applied. When two fissures exist each is to be treated in the same way, and both should be operated upon at the same time. When projecting teeth are in the way, they should be extracted.

TONGUE TIE.—A child is said to be "tongue-tied," when there is a preternatural extension of the frœnum linguæ, to

the top of the tongue, fixing it firmly to the floor of the mouth. This can easily be overcome by cutting the frœnum with scissors across as near the floor of the mouth as possible; the cut should rarely extend beyond one eighth of an inch. By cutting too deep into it you may cut through the lingual artery, &c.

SQUINTING: OR STRABISMUS.—In a majority of cases of permanent squinting, the difficulty is owing to a disproportionate contraction in the recti muscles, one being too much relaxed and the other preternaturally contracted. The remedy to cure this, is a division of the contracted muscle, and this is usually the internal rectus. If the internal rectus muscle is contracted, the eye is turned toward the nose, vice versa, outward.

THE OPERATION FOR THE RELIEF OF THIS DEFORMITY, OR STRABOTOMY—Consists in dividing the shortened or permanent contracted muscle. This being generally the internal rectus, the process may be given in the following: The patient being seated and the eye secured by the speculum or otherwise, the sound eye is to be covered and kept from rolling by gentle but sufficient pressure. The lids and ball of the defective side can be best fixed with the wirespring speculum. A double hook is then hitched to the conjunctiva midway between the margin of the carnea and internal canthus, by which the ball is rolled outward, and the handle then held by an assistant. The operator next raises the conjunctiva with fine hook-forceps, cut into it perpendicularly with the curved scissors, and continues to raise and divide the cellular tissue until he reaches the muscle, when he disjoins it with the scissors. If the muscle has been completely divided, the patient, on having the eye freed, will be able to turn it in all directions, except directly inward. The eye is to be closed and kept from exposure to air, as well as light, for one or two days, and also covered in this time with wet cloths.

WEB FINGER.—These only require division by the scalpel, and to be prevented from re-uniting by a piece of oiled silk kept between the fingers until cicatrization takes place.

WRY-NECK.—By this term is understood an involuntary and fixed inclination of the head toward one of the shoulders. Wry neck may be caused by spasmodic or permanent muscular contraction, bad cicatrization “as in burns,” or be connected with disease of the cervical or even lower vertebrae in general spinal curvature. If this deformity is so great as to render an operation desirable, the contracting muscular tendon or fascia is to be divided with the knife. The incision should be as superficial as possible; when the muscle has been completely divided, it will snap back. The hemorrhages can be prevented by the ordinary compress.

SPINAL DISEASE, RICKETS, CURVATURE OF THE SPINE, SPINA BIFIDA, &c.—The spine and other bones of the body, are subject to different affections, generally arising from one cause, namely, a strumous or scrofulous diathesis, debility, or injury done by certain positions. By these means the bone becomes sometimes carious, and has not sufficient power to resist the action of the muscles, and curvature then takes place.

Symptoms.—A prominence is usually first seen in the sternum or over the dorsal vertebrae, which often has the appearance of a tremendous large tumor, and gives the subject of it a very bent position, vulgarly termed “hump-back;” and this becomes fixed, and continues through life, without very much impairing the general health. In a common curvature of the spine, it is found curved, and resembles the letter S. The right shoulder and right side of the chest are unnaturally high and rounded, while the opposite is depressed and concave; in the same way the left hip projects, while the loins on the right side are curved inward.

Causes.—This condition is sometimes caused by sitting in a bent position at school or in factories, particularly when children are predisposed to rickets or scrofula.

Treatment.—It is best in nearly all cases to begin your treatment with an emetic. A suitable one in this case, is an infusion of equal parts of chamomile flowers, eupatorium perfoliatum, or boneset and lobelia herbs. This is both emetic and tonic. It should be given in small doses at long intervals, so as to be slow in producing its effects. The patient should be kept under the influence of this for six or eight hours, vomiting every two or three hours during the time. This should be followed next day with an active cathartic of an unirritating

kind—such as podophylline and cream of tartar, or the compound powder of may-apple-root with cream of tartar. The alterative syrup should constantly be taken. Also the restorative wine bitter prove beneficial; the bowels must be kept regularly aperients or injections. Externally, let the irritating plaster be applied over the parts affected. This should be spread from two and a half to three and a half inches wide, and of the proper shape and length to extend above and below the curvatures. It may in some cases be applied from the neck to the sacrum. The plaster should be dressed in the proper manner every day or oftener, and continued for a sufficient length of time to remove all local irritation. It may take several months. Whenever the plaster gives too much pain and irritation, apply the elm poultice till the pain and irritation has subsided, and then re-apply the plaster. Also bathing the surface daily with the alkaline bath, also daily foot-bath, &c. Wet-sheet pack, or alcoholic-vapor-bath, followed by brisk friction. The scrofulous syrup may sometimes be changed of for the alterative syrup, &c. A vegetable and nourishing diet with exercise in the open air, and if this cannot be fulfilled, the room must be well aired.

UNNATURAL JOINTS, OR PSEUDARTHROSIS.—

This is an unnatural or false joint, resulting from a failure of the portions of a fractured bone to unite by ossification or callus; it may be caused by morbid habit of body, or the fault may arise from the fractured bones not being properly brought into contact. A ligamentous capsule forms around the extremities of the broken bones, which finally become smooth and round; and in some cases a regular ball-and-socket joint is formed. The best plan of treatment is to pass a seaton-needle armed with a skien of silk, through the limb between the ends of the bones, by means of which a running sore may be kept up for six or twelve months, being careful to avoid large arteries, veins and nerves. Lint and small compresses are placed over the holes, and the splints and roller applied to support the limb in a proper position. The seaton should be allowed to remain until union is complete. General constitutional means must be used, also bathing the surface daily with cold water, &c.

CLUB-FOOT, OR TALIPES.—These deformities are divided into four varieties.

1st. *Talipes varus*, which is by far the most common. In this the foot is turned in; the patient walks on the outside of it, the great toe turns inwards and upwards, and the heel is elevated.

2d. *Talipes Equinus*, the heel is more or less elevated from half an inch in some cases to four or five inches in others.—The patient walks on his toes or the ball of his foot.

3rd. *Talipes Vulgus*, the foot is turned out so that the patient walks on the inner surface, the external edge being raised from the ground, the sole looking outwards.

4th. *Talipes Calcaneus*, here the toes and foot are elevated to an acute angle with the leg, the heel resting on the ground.

Causes.—The first variety is produced by a contraction of the muscles of the calf of the leg and the adductors of the foot; the second variety is usually owing to a contraction of the *gastrocnemii* muscles alone, but sometimes the flexors of the toes are also contracted; the third variety is caused by the contraction of the adductor muscles, and also those of the calf of the leg; and the fourth variety is owing to the contraction of the *tibialis anticus*, and the extensor muscles. These deformities are usually congenital, or born with, but may result from accidents.

Treatment.—This should be resorted to as early as possible, whether so born or accidental; the proper treatment adopted and carried out at the first discovery of the deformity will always be successful. But a few years' delay may change it abortive, in both operation and other means. Children under the age of three years can be remedied by proper mechanical apparatus, without the operation. The apparatus consists simply of a stiff shoe or sole, fixed to a stiff upright shaft, made fast above the knee with a joint at the knee. The shoe is so fixed as to turn easily in the proper direction. The foot is made fast to the sole, to which springs are attached from the upright shaft, in such a manner as to make constant but gentle extension on the contracted muscles, and in a proper direction to make right the deformity. Where machinery fails, or is not applicable, the operation of tenotomy—a division of the contracted tendon or tendons—is the only chance. A division of the *tendo achillis* is sufficient in a majority of cases of the first variety. For this purpose the patient is placed on a bed upon his face, or he may sit in a chair with his foot elevated. The skin of the ankle is drawn either backwards so as to make it tense, and so that when it contracts it will cover the wound. A long narrow bladed knife is used which is round and smooth for an inch next the handle. It is passed through the skin flatways between the tendon and the bone, near the anterior surface of the former; from one to two inches above the inter-

nal malleolus, and carried through to the skin on the opposite side. The edge is then turned upon the tendon, and while an assistant, or the surgeon, with his left hand bends the foot in such a manner as to put the contracted muscle firmly on the stretch, he cuts steadily through the tendon. It will separate with a crackling noise. The limb is kept in an easy position for three or four days, and then placed in a suitable machine to keep up extension and fix it in its proper situation. The space between the divided ends of the tendon will be filled up with coagulable lymph, which eventually becomes firm and serves as a tendon.

The tendon of the posterior tibial muscle is most readily divided about two inches behind and above the internal malleolus. The principles of operation are the same. In this case care must be taken not to cut the posterior tibial artery and nerve, which might be wounded if the incision were carried too deeply.

The tendon of the anterior tibial muscle must be cut where it passes over the ankle joint. The flexor of the great toe is most conveniently divided on the sole of the foot. It may be seen and felt projecting like a strong cord. After the operation, the limb should be placed in an easy position and the patient kept quiet. A strip of adhesive plaster is to be placed over the external wound, and it healed by first intention. In these operations there will be but a few drops of blood, unless an artery be cut, of which there need be no danger, and cannot be in the first and last two cases named.

CONTRACTED SINEWS.—A contraction of the flexors of any part of the body is so termed. It is most frequently seen in the fingers or toes over-riding each other. The fingers are also contracted from inflammation, and a "club-hand" is sometimes met with. Some of these cases may be relieved by an incision through the skin; but others require the operation of dividing the tendon or muscle affected, "as in tenotomy."

CHAPTER IX.

DISEASES OF THE ANUS AND RECTUM.

PILES, OR HÆMORRHOIDS.—The piles appear in two states: 1, a varicose, or preternaturally distended state of the veins, in the neighborhood of the anus; 2, in a state of tumor, or excrescence, which apparently consists of a solid, fleshy mass. The one is internal and the other external.

A patient affected with bleeding piles, is subject to greater or less discharges of blood, a rupture or distension of the veins, while evacuating his bowels, and sometimes a fatal hemorrhage succeeds. There are sometimes tumors internally, but more generally they are most numerous externally.

It usually commences with dyspeptic symptoms, &c. There appears to be a morbid or acrid secretion from the liver, which either causes costiveness, or such a state of the bowels as brings on the complaint. The patient first experiences an uneasy sensation about the rectum, especially when he is costive, and anything passes the bowels. We first perceive a small tumor at the end of the anus, or a little distance up, which an evacuation forces down. As the disease increases, the inconveniences attending the complaint are very great. There is extreme pain in going to stool, followed by a great tenesmus, or pressing down, with a heaviness, and itching, disagreeable sensation through the hips, attended with bleeding, and sometimes by a prolapsus ani or falling down of the bowel, oftentimes a descent of a large mass of tumors, and these, if the disease is not cured, or is protracted, remain large, hard, and round, and difficult, if not impossible to reduce. When the bowels are relaxed or costive, they are much worse. Sometimes inflammation supervenes, followed by suppuration, giving rise to abscess and fistula.

Cures.—The piles are often occasioned by aloes as a purgative. Sedentary habits, corpulence, a plethoric habit, a morbid condition of the liver, pregnancy, costiveness, or drastic purga-

tives of any kind, will occasion them. An inactive liver is a great cause of piles, as it prevents a free return of blood from the parts, &c.

Treatment.—In the treatment of piles, of either species, whether bleeding or blind, or in a state of tumor, the first object will be to obviate costiveness and to regulate the bowels by laxative medicines, and a correct course of diet; injections are excellent to regulate the bowels. Medicines which acts moderately upon the bowels, are calculated to remove that morbid state of the liver and stomach, which so frequently gives rise to the complaint. Our next object must be, to use local remedies, here the daily hip-bath cold or warm as the patient feels best, also injections. If they are bleeding piles, you will find great benefit in the following ointment: Take the red or styptic powders, (see Pharmacy) pulverized, one part; and Stramonium or Jamestown-weed ointment ten parts; or one ounce of the former to ten ounces of the latter. Mix the whole together and incorporate well. Let a few times a day a small portion of this be introduced as far up into the bowel as possible, with the finger, or on a piece of lint, or in any convenient manner. The first application of this ointment usually stops the bleeding. An injection of cool water every time before stools has an excellent effect. I have cured bad, very bad cases, and of long standing with injections, and the styptic ointment, or even with the ointment alone.

Blind piles, or in a state of tumor. If this variety of piles is in a state of chronic inflammation, with swelling, &c., astringent and refrigerant, or cooling washes should be applied. The tincture of lobelia, and a strong decoction of white oak bark, equal parts, frequently applied. As an internal remedy to regulate the bowels, are the anti-dyspeptic pill, or injections, also small doses of podophylline, say one-fourth to one-half a grain once or twice a day. When there is pain and inflammation, steaming over bitter herbs is an excellent remedy, and fomentations, of hops, &c.

This simple treatment will remove all recent cases. But in some cases of long standing, the piles have become hardened and callous. In this stage when the tumor is not reducible and callous, apply at once your ligature round the tumor or tumors, passing it through a cork, as recommended in the case of fistula in ano, and tightening it every day, till the circulation of the tumor is cut off, and the tumor sloughs off. The patient in the meantime should constantly keep on a slippery elm poultice; and rest as still as possible, the bowels be regulated with the means before recommended; also here an occasional hip-bath would be of some great service.

The best mode of tying, is to have the patient strain down the tumor, over which the silk or linen cord is put as a loop,

having been previously passed through the cork. The disease rarely returns after the removal by the ligature; even though the patient should neglect himself and become costive. The tumors will generally slough off in less than a week.

PROLAPSUS ANI.—This often exists in connections with piles, especially bleeding piles.

A similar constitutional treatment is generally required to that recommended for piles, though it may not often be necessary to carry it out so fully or so long. The first indication is to reduce the prolapsed part; the swelling however, may be so great that immediate replacement is impossible or unsafe, in such a case the steaming and hot fomentations, followed by the tepid hip-bath, and this followed by the cold cloths and compress. After the inflammation is sufficiently allayed, the patient may be placed on his knees, with his hips elevated and head down, and grasp the tumor with a cloth wet in warm water in your hand, gradually compressing and pushing it back with your fingers. Daily cold hip-bath, and injections of the same is of great value. The patient should be kept quiet for a few days; if he gets up at all he should wear a "T" bandage, with a cold water compress on the anus.

In particular, cold hip-bath, cold injections, and compresses to the anus, are all necessary in most cases. Lubricating the rectum by an injection of Linseed oil, just before an evacuation of the bowels, may prevent the occurrence of prolapsus.

FISSURE OF THE ANUS.—This, as the name implies, is a crack or groove in the rectum, extending up from the orifice, sometimes more than two inches. It is very irritable and tender to the touch, though the edges become thickened and hardened. A sanious fluid is continually exuding. This affection is as distressing to the patient, and not unfrequently as hard to cure, as fistula at the same place.

The treatment is conducted on the same principles as that of Fistula in Ano, and the mild caustic is here, also, the principal agent. Frequently inject with the caustic solutions, and fill up the crevice with lint holding the dry powder, pressing it in with the probe till it is filled. An elm poultice must be kept on between the dressings, also steaming the parts, if, there is inflammation. These applications are to be continued until all

hardness about the fissure has disappeared. Suppuration will soon bring about this change, when the parts will assume a healthy appearance and commence healing. While the healing goes on, the patient should be kept rather quiet, and the health in general attended to, as in fistula in ano. The cure is some times tedious.

As much caustic must be made use of as the patient's nervous system can bear. If he can bear frequent applications, the case will rapidly progress and he may be cured in from four to ten weeks. A much longer period will be required when you cannot make a powerful impression oftener than once in three or four days. In such cases you should inject soap-suds daily.

STRICTURE OF THE RECTUM.—This is a rare, but a very distressing malady, and one that has heretofore been but little benefitted by surgical measures. The obstruction comes on gradually, and much harm is often done, as well as valuable time lost, by its being confounded with constipation. This is the great cause. Persons who lead sedentary lives, and neglect the calls of nature, are by far the most liable to stricture.—The fœces being habitually retained by a forced action of the sphincter, accumulate in large quantities and distend the greater part of the rectum, while the extremity is firmly contracted.

Stricture of the rectum may be divided into functional or organic, or in other words, into spasmodic or structural. The former is merely a contraction of the coats of the rectum, without either thickening or induration of the texture; while the latter consists of a morbid growth, attended with a callous ring round the bowel, just within the arms, of not more than a quarter or half an inch in width. The difficulty may occur in any other part of the bowel, but, principally limited to the space between the arms and the prostrate gland.

The symptoms are sometimes difficult to determine, the patient being seldom able to describe his sensations with sufficient exactness. He experiences a difficulty in evacuating his bowels, and is obliged to use considerable straining, although the fœces appear not to be unnaturally hard. The fœcal stream passes off finer, as the obstruction continues, the passage growing continually smaller.

An obstruction may sometimes occur without any thickening in the rectum itself, in consequence of an enlarged prostrate gland. When the stricture is fully within the reach of the finger, the canal feels narrow, indurated, and unyielding, for a greater or less extent, and in some instances we are able to pass the finger through the obstructed portion. Occasionally, it is

rather higher than we can reach; but in such cases, if the patient bears down forcibly, the diseased portion of the intestine will so far descend as to admit of the requisite examination.

Treatment.—We may first commence the treatment of stricture of the rectum by ordering such medical means as are calculated to keep the bowels in a soluble condition, here the diet should be vegetable, &c. Injections, or our anti-bilious physic may be given; afterwards the anti-dyspeptic pill may be given to regulate the bowels, or injections of the tinctures of Lobelia, and Stramonium; and a strong hickory ash lye, equal parts of each. Extracts of Stramonium and Balladonna should be frequently applied. If there be any discharge of matter attending the stricture, make use of the vegetable caustic; and strong solution should be used as a lotion once or twice daily, and the lower part of the rectum well loaded with tents in which the dry powder is involved. What is still better than the solution of the caustic, is the first running lye prepared from hickory ashes, contains the greatest degree of strength, or is the most concentrated. It should be put into a vial, and kept from the air by means of a glass-stopper, and when applied, the cotton to be dipped or immersed in it.

This produces a smarting or painful sensation for a few moments and then subsides, without leaving the parts sore or inflamed, like generally of caustics. This has the same favorable effect in all indolent and fistulous ulcers, acting only upon spongy fungus, or diseased flesh, and thus bringing about healthy granulation. It becomes necessary sometimes to dilate the stricture, which may be done in the following manner: take equal parts of the bay berry and common tallow, then make candles of different sizes in the ordinary manner. They should be about six inches long, and a little smaller at one end than the other. Immerse in sweet oil the end of one of the smallest of these, which should be of such a size as can be introduced without much pain, and let it be introduced up the rectum, and fasten it in that position by a "T" bandage, requiring the patient to keep it on as long as he can bear it. They would better be made of gum-elastic, so as to cause a slight but constant upward pressure on the instrument. "Here the extract of Stramonium and Balladonna, should be frequently used, or altogether, to lubricate the dilator." The same dilator may be used and repeated for three or four days, and then on larger used in the same manner and the same length of time. And thus the size should be increased as the stricture becomes dilated. At this same time the bowels must be kept regular, and other means used according to circumstances. Nothing is gained by forcing a large bougie through a stricture. The cure is to be effected by the repeated and gentle stimulus of pressure, so as to excite absorption; not by mere mechanical dilation.

You may venture the application of the bougie occasionally during the caustic treatment, provided the parts are not too irritable.

I have derived great advantage, "says Dr. Hill," in these cases, from an irritating plaster over the sacral and lower regions. On whatever principle it may be explained, I am satisfied of its nature; I know that cases which had before resisted treatment, have readily yielded to a repetition of the same measures in connection with the irritating plaster. Indeed I have no hesitation in recommending its application in almost all varieties of rectal diseases.

SPASMODIC STRICTURE OF THE RECTUM—known by great difficulty in evacuating the bowels, with spasmodic pain in doing so—is an affection about which little is known. This is more frequently caused by a regulated diet and alterative medicines, and the use of injections, than by the employment of bougies.

CHAPTER X.

VENEREAL DISEASES.

THE affections of the genital organs which result from impure sexual intercourse, are among the most loathsome in appearance, and the most deplorable in their consequences, that afflict degraded and erring mortals.

Venereal affections appear in two distinct forms only, correctly speaking, as syphilis, or pox, and Gonorrhœa, or clapp. The first is a constitutional disease, and the second a local disease, not extending beyond the genital organs or glands of the groin. Buboës, Chancres, Chordee, &c., are only modifications of these two distinct forms. Both diseases, however, may co-exist in the same individual and be communicated at the same time. Gleet is a simple urethral running, and often a sequel of gonorrhœa, and may exist from irritation unconnected with venereal taint, and be excited by stone in the bladder, leucorrhœa, and various other causes. These distinctions are important to keep in mind. It should also be remarked, that syphilis never affects the constitution until after the formation of an ulcer and the absorption of its matter.

Syphilis commences with one or several small pimples, or chancres, on some part of the genitals, which gradually fester and finally terminate in spreading ulcers filled with an exceedingly acrid and corroding matter. If this matter is allowed to be absorbed, the glands of the groin swell into hard tumors called buboës and often ulcerate. Finally, the whole body becomes contaminated with the virus absorbed from the chancres, and what are called constitutional or secondary symptoms appear, as foul ulcers in the throat and palate, livid and copper-colored spots on the skin, or ulcerating scabs, inflamed eyes, pains, swellings, and caries of the bones, &c.

GONORRHŒA, OR BLENORRHŒA—May be defined as a specific inflammation, produced by the immediate contact

of a virus. The first symptom is an itching or burning pain in the glans penis, or attending the urinary discharge, soon after which large quantities of a purulent matter are thrown out from the urethra or vagina with pain, and swelling of the part affected. An attendant local symptom is a frequent involuntary and spasmodic erection. This is called chordec. It generally occurs during sleep, waking the sufferer with great pain. In some instances the inflammation extends to the glands of the groin, and produces buboes. An aching is frequently complained of in the testicles and loins, reaching down the thighs. It may be mentioned here that "buboes" may arise from any other irritation. The constitutional symptoms, are in general trifling; but, may soon become constitutional. In some cases there may be a sympathetic fever. A first "clap" is generally more severe than subsequent ones.

Special Causes.—Venereal diseases may be generated by promiscuous sexual intercourse, and when produced, the peculiar virus thus developed is capable of propagating the same disease by contact.

Treatment.—First then, when called on to treat a case of gonorrhœa, you should institute means to rid the system of the virus. I usually prescribe an emeto-cathartic of podophylline, or anti-bilious pills. The purging should be kept up pretty freely during the first day's treatment, after which the cathartic may be discontinued and recourse had to muscilaginous diuretics, (such as a strong infusion of burdock and mullein roots and tops of the first year's growth.) During this time the patient should take the diuretic drops, (see Pharmacy,) to which may be added one-fourth the quantity of the Tincture of Cubebs, dose one teaspoonful of the mixture every two hours, although local applications should never be solely relied on, nor so used as to arrest the discharge independently of evacuates. The Diuretic Pill may be used with the greatest of benefit in place of the Diuretic Drops; or they may be alternately used.

In the first stage of clap, injections are unnecessary. But, what is better is this, give your patient a good portion of some diuretic and diaphoretic tea, and sweat him. This may be aided by the alcoholic-vapor-bath, or water-vapor. This must be followed by the alkaline bath. This ought to be repeated as the patient's strength can bear, (and in accordance to his plethora) say for instance once or twice a day, or every other day. At any rate daily bathing or spunging the surface with the alkaline bath, is very effectual. Also the patient should live on a vegetable, spare and unstimulating diet; and also prevent drinking stimulants, &c.

This disease when treated correctly, or as above said, will have no relapse, nor will gleet be known of. If called too

late to prevent the chronic form of discharge, the "gleet," you must make use of injections, with the treatment recommended for gonorrhœa, here stimulating and astringent injections must be introduced once or twice a day. A solution of nitrate of silver or lunar caustic, to begin with one grain to one ounce of water. Also alternatives may here be necessary, with an occasional physic, diuretic pill or drops, &c., must be made use of. Also the tinctures of myrrh and catechu are very good as injections in gleet, or which is superior to all, is the pyroligneous acid. This will generally arrest the discharge after two or three injections. It should first be used in a diluted state. In consequence of an injudicious treatment of clap, by improper injections, &c., or the location of venereal matter on the lining membrane of the urethra, causing inflammation, it becomes contracted, thickened, and deprived of its natural elasticity.

And thus we have—*Stricture of the Urethra*. This stricture may exist in any part of the urethra, but is generally found three or four inches from the orifice. The symptoms are, a difficulty in voiding urine, and there is an uneasy sensation in the urethra afterward. The stream of water is smaller than usual, and forked, scattered, or twisted; and it requires a considerable effort to discharge it. He is liable to attacks of spasm, with complete retention, &c., causing inflammation. In some cases the urethra may ulcerate or burst, occasioning abscess. The countenance becomes pale, and the appetite fails; chills and heat, aching and weakness in the back, are present, &c.

Causes—Of stricture are the abuse of injections, &c.

Treatment.—Attention must first be directed to the general health; the stomach and bowels must be regulated; after which diuretics must be given, as in gonorrhœa. Then stimulating injections may be found useful, as directed under the head of gleet. If there is much retention of urine, let the patient take a warm hip-bath, and he may also sit over the steam of bitter herbs, to remove the spasm, irritation, or induration.

Means must now be used to effect a radical cure. This is effected principally by mechanical means—bougies of different sizes must be cautiously introduced every few days. The bougie should be retained ten or fifteen minutes each time it is introduced. It may be smeared in the extract or ointments of Stramonium or *Balladonna*, &c.

Manner of Using the Bougie.—A small conical or taper-shaped gum elastic bougie is to be introduced; it should be of the same size as the stream of urine, and being previously greased, is to be carefully passed along the urethra. When it

reaches the stricture it should be allowed to rest a little, and is then to be pushed gently forward. If resistance is still offered, it must again be allowed to rest for a minute or two, so as to avoid producing irritation or pain. If we succeed in the introduction of the instrument through the stricture, the cure is then in our power; but sometimes this cannot be effected without repeated trials and a great deal of trouble. Use this same bougie for several times, and then a larger one must be used. By thus steadily but cautiously persevering in the introduction of bougies, the stricture will be at length overcome, and the largest bougie may be passed with facility. Five or six weeks, or perhaps a considerably longer period, may be required to complete the cure; but this mode of treatment, though slow, is safe, and very successful. No attempt should ever be made to get rid of stricture suddenly, because it has been well ascertained that the dilatation is the more durable the more slowly it has been effected.

CHANCRE, OR INCIPIENT STAGE OF SYPHILIS.—

The second local form under which the syphilitic poison has been mentioned to show itself, is that of a chancre. This is distinguished by want of disposition to heal, a thickened base, and circumscribed inflammation, with other characteristic marks. The parts generally affected with these ulcerations, in men, are the prepuce and frænum, at the orifice of the urethra, and in the angle between the glans and body of the penis; and in women, about the labia, nymphæ and clitoris; but sometimes they extend into the vagina and the os uteri. The appearance of chancre, after infection, varies from twenty-four hours to several weeks.

Treatment.—The ulcer or chancre should be destroyed by caustic as soon as it makes its appearance. When the ulcer has already spread over a large surface, its virus may be destroyed by repeated applications of a strong solution of the vegetable caustic or diluted nitric acid, “one part of the acid to six of water.” The lye spoken of “in stricture of the rectum,” prepared from the hickory ashes, &c. In all other respects, both forms are to be treated as ordinary local inflammations. We at present speak of syphilis.

When the venereal poison becomes absorbed (from the chancres) and affects the inguinal glands, it is termed a bubo. It is an inflamed lymphatic vessel, usually leading from a venereal ulcer, or a gonorrhœal affection, and the ordinary time of its appearance is just as the ulcerative stage of a

chancre is ceasing, showing clearly that the virus has been taken up by the absorbents. The seat of it is in one or both groins. It may be either chronic or acute.

Symptoms.—The symptoms are stiffness of the joints, causing the subject of it to assume a peculiar gait in walking; in the acute kind, there is swelling, pain and inflammation, and consequently, if not arrested breaks out in suppuration. The treatment of buboes are the same as other inflammations and ulcers. First, if you are called in its inflamed stage, use the steaming, fomenting and emollient poultices, &c., to subdue inflammation. Secondly, rid the system of the specific virus or poison. Thirdly, if ulceration is the case, treat like all other ulcers, as the case may require, &c.

SECONDARY AND TERTIARY SYMPTOMS, OR LUES VENEREA.—A constitutional taint is another form under which it has been mentioned that the syphilitic poison is apt to show itself, and always arises in consequence of the matter being absorbed and carried into the circulating mass of fluids.

Secondary ulcers may appear upon any part of the body, and must be treated on general local principles. I shall give the constitutional treatment hereafter.

Diagnosis.—There is sometimes great difficulty to distinguish the disease, by the denial of patients that they have ever had primary symptoms. If however the patient has a copper-colored eruption, a sore throat, falling off of the hair, and a general faded unhealthy look, and these disorders are of recent date, and cannot be attributed to any causes connected with diet, the probability is that they are syphilitic.

CONSTITUTIONAL TREATMENT—Of Venereal Diseases, in general; with slight variations or modifications, as the cases may be, &c. To perform a permanent cure of this tremulous malady, we ought at once, take a full course of Eclectic treatment at some Hydropathic Institute, where we can obtain pure air, cleanliness, &c., &c.

First, we must rid the system of the poison as soon as possible; and thus we would better commence, with an emeto-cathartic, as podophylline, or our common emetic powder, followed

by our anti-bilious physis, this may be repeated once in every the anti-dyspeptic pill, or injections. And alteratives must week or two; in the interval the bowels must be regulated by be given; here we must change off, one to the other; say the the alterative syrup may at first be given for a few weeks; and then change off for the scrofulous syrup. Also if the patient is much debilitated, give the restorative wine bitters, alternately with the syrup. Diuretics ought to be given also, or a great deal of pure soft water drank during the day, or the diuretic pill, or drops taken occasionally. Say for instance in the morning when you rise, drink a tumbler full of soft water, and take a dose of the syrup; at nine o'clock in the forenoon, take a dose of diuretic pill or drops; just about half an hour before dinner take the syrup again; in the afternoon at about three or four o'clock, take the diuretic pill or drops; just before supper take the syrup again; and at bed-time take the anti-dyspeptic pill to regulate the bowels. This must be changed according to the case. (Local means have been spoken of before). Externally, may be used, alcoholic-vapor-bath, or wet-sheet-pack, followed by the alkaline-bath, with friction, hip-bath, foot-bath. &c., these means must be used daily, or every other according to circumstances. Exercise in the open air must be taken as much as the patient's strength can bear, and a nourishing vegetable, and unstimulating diet. There ought to be great regularity in taking meals, medicines, baths, and exercise, and also sleeping, the patient ought to sleep no longer in 24 hours, than 8 hours, or even less, &c.

MASTURBATION, OR ONANISM.—*Symptoms.*—The chief characteristic of seminal complaints, is an involuntary emission of semen, which may occur either during the day or night, but generally the latter, when the patient is warm in bed, dreaming about some lascivious object. Subjects of these complaints generally exhibit much leanness or emaciation of the bowels, want of memory, pain in the back part of the head and in the loins, unpleasant sensation along the whole course of the spine; the urine is high-colored, and small in quantity; an areola or dark ring is formed around the eyes. In addition to these, there is great mental depression, timidity, shunning of society, &c.

Causes.—This loss of the nervous energy may be produced by many and various causes, as, for instance, from masturbation, excessive venery, costiveness, the excessive use of stimulants, fatigue, &c.; but by far the principal cause which pro-

duces this melancholy class of diseases is the destructive habit of self-pollution.

Treatment.—In treating these diseases, we must direct our attention to the origin of the complaint. The principal remedies necessary in these complaints, are tonics, diuretics, bathing, the ascending douche, and a prevention of any thing that causes the malady. The stomach and bowels must be regulated. This may best be accomplished by injections, or the anti-dyspeptic pills. The restorative wine bitters should be taken in the usual manner, and the diuretic drops or pills twice a day, &c. Daily alkaline rub-sheet, hip-bath and foot-bath, all followed by brisk friction, also an occasional wet-sheet-pack would be very precious. These baths may at first be used warm or tepid, and reduced in temperature till cold. A light and untrifling diet must be given, and moderate exercise in the open air, &c.

If self-pollution is a cause, it must be immediately discontinued; and the patient must endeavor to keep his mind absent from females, &c.

ST. ANTHONY'S FIRE, OR ERYSIPELAS.—This affection has been divided into idiopathic erysipelas, produced by the general causes of fever, and traumatic erysipelas, resulting from wounds and injuries.

Symptoms.—Generally severe constitutional symptoms precede the disease on the skin. The symptoms before an attack are very various. It frequently exhibits itself at the end of fevers of long continuance, as well as of inflammations of different organs, and is liable to attack persons who have labored for years under chronic diseases. The attack is generally preceded by chills, alternately with flushes of heat, oppression at the precordia, difficulty of breathing, cough, expectoration, pain in the back and loins, restlessness, more or less delirium, a sense of weight in the head, headache, and more or less febrile excitement. These symptoms may exist with more or less severity for a day or two, before inflammation appears on the skin. The stomach and bowels are more or less deranged. All the febrile symptoms must be treated on general principles, laid down in a preceding part of this work, on fevers, &c.

Local Symptoms.—Erysipelas is a disease met with in practice, in every degree of severity, appearing under the form of the slightest cutaneous blush, or under that of deep and extensive inflammation of the skin, extending over the whole body. The first local symptoms of erysipelatous inflammation are a

tingling or pricking pain, with some degree of heat, swelling, tension, and redness of the part. The swelling increases rapidly; the surface presents a shining appearance, as the disease advances, the part assumes a purple color.

Causes.—Remotely, erysipelas may proceed from various causes, as obstructed perspiration, suppressed evacuations, plethora, injuries of all kinds, derangement of the stomach and bowels, loss of blood &c. The immediate or proximate cause is no doubt retention of morbid humors in the blood, of a specific character, which not being eliminated, become located in the capillary system, and on the skin, and thus produce the erysipelatous inflammation.

Treatment.—The digestive organs are always deranged in erysipelas; hence the necessity for the administration of cathartics, and they are required in every stage of the disease. In the beginning of the disease an emetic will prove beneficial, especially where there are any bilious symptoms present. The best purgative in erysipelas is the following: senna, manna, and cream of tartar, with a little fennel-seed, to prevent griping. A dose of this should be given every other day, or twice a week, according to circumstances. During the day, the patient may take a strong decoction of elder-flowers; they are laxative, cooling, and alterative. I have found that the vapor-bath, given in the following manner, is attended with a very excellent effect. Take, Lobelia herb: catnip; hops; &c. Boil them in a boiler till all the strength is extracted: then place the patient on an open bottom chair, with his feet placed on the cross piece of the chair in front; then hang blankets around him to prevent the evaporation of the steam, and place the boiling herbs in under the chair.

It is better to cover head and all with the blankets; if the patient can bear it. At the same time give him elder blossom tea to drink, warm, to aid sweating; continue this for fifteen or twenty minutes, or till the patient sweats pretty copiously, if can bear it. Then put him to bed and let him sweat there; and after a short time when the sweating ceases, give him a bath of tepid water, followed by brisk friction, &c. This may be repeated according to the patient's strength, say once or twice a daily.

When the inflammatory symptoms have measurably subsided alteratives must be given; here our alterative syrup is preferable to any other.

Local Treatment.—In this disease, this is very important. Dr. Beach recommends the following: "where there is great heat, burning, &c., of the skin." Take an ounce of the root of the gardencelandine; one ounce of the leaves of yarrow; bruise, and add one quart of common cider brandy. In this

dip muslin or linen, and apply to the parts, over which place a piece of linen or a loose bandage. Repeat this three or four times a day, or as often as it becomes dry. This will be found to allay the irritability of the parts. I think that the tincture of Lobelia is very well calculated for this purpose, at least I have found it almost "I might say" a specific, as a wash in erysipelas. The parts must be very frequently washed or bathed with this tincture of lobelia.

To arrest acrid secretions, which are a great source of irritation, the powdered elm-bark or burnt rye-meal may answer. If the parts become very much inflamed, painful, and ulcerated, they must be regularly poulticed. The bark of the root of black willow, or commonly called pussy willow; pulverized, and mixed with cream. This may be applied and changed three or four times daily with the very greatest effect. Nitrate of silver or lunar caustic is used by some as a local remedy, say from half a drachm to one drachm; with one ounce of pure soft water, apply with a camel's hair pencil, all over the affected parts, and beyond the affected surface. Cold cloths, very cold, applied to the parts and often changed, are in some cases the best of all means, "says Dr. Beach." And I think it a superior application, if it can conveniently be applied, but in some cases it is impossible to do this. If water is at all applied, it should be so applied, that no air could get between the cloths and surface; or else it will do more harm than good. Cream and alum rubbed in, is a very cooling application. The wet sheet-packs is of great importance in erysipelas, with the other constitutional treatment.

In erysipelas where there is a lack of vitality in the part, active stimulants seem demanded. Here the tincture of cayenne pepper, or the saturated tincture of poke-root or the compound tincture of gum myrrh may be applied. A solution of the vegetable caustic may be applied with benefit. But as a local remedy I prefer "in ordinary cases," the tincture of lobelia, or of the very best whiskey, and the parts frequently wetted.

DEAFNESS.—This is most commonly owing to a relaxation of the tympanum, accumulation of wax, or paralysis of the auditory nerves.

Treatment.—Injections of soap-suds are excellent. Introduce into the ear the sap of hickory, procured by placing a stick over the stove or fire, and preserving the sap as it is forced out. Balsam copaiba dropped into the ear daily, and then inject soap-suds once or twice daily. If it is a paralysis of the auditory or hearing nerves, electricity, with a general course of hydropathic treatment, will cure.

CHAPTER XI.

DISEASES OF THE EYE.

THE eye is one of the most sensible and delicate organs of the body, and from its situation and function, it is liable to many accidents and diseases.

COMMON OR ACUTE OPHTHALMIA.—Or simple inflammation of the external coats of the eye, particularly of the conjunctiva; this may be brought on by the introduction of foreign substances between the lids and ball, or other modes of external injury; exposure to cold, &c.

Ophthalmia may be divided into external, or inflammation of the conjunctiva, and deep seated, when the inflammation affects the other tunics. We also have the usual division of inflammation into acute and chronic.

Symptoms.—The general symptoms of ophthalmia are similar to inflammations in other parts of the body; the difference consists in modifications from the peculiar structure and functions of the eye. There is irritation tending to inflammation, is an uneasy sensation of itching or scratching, whether there be any foreign substance actually causing it or not. The next stage is probably more or less intolerance of light.

Treatment.—Keep the eye shaded from strong light, but not confined from air by close bandaging. Apply linen cloth wet in cold water, changing them very frequently, until the temperature becomes natural, and the redness disappears. Also wet the head often in cold water. If there are chills and heat, employ the wet-sheet-pack once or twice daily for an hour, followed by an alkaline bath cool. If the feet are cold, use warm foot-bath. Move the bowels with injections or our common anti-bilious physic. Diet the patient, eating nothing stronger than gruel, &c. Means to equalize the circulation will remove the disease. Eye-waters may be efficient, as a cooling or refrigerant wash is the following:

Take one dramch of pulverized borax, to which have been added eight ounces of boiling rain or spring water, and afterwards

strain or filter. But after using this lotion with the cold water cloths, without benefit, and the inflammatory symptoms have measurably subsided, make use of a stimulating eye-wash. What I find the best of all washes in this stage is the tincture of cayenne pepper, at first a little diluted, and the strength increased, this may be applied once or twice daily. Another very good wash may be used before the tincture of red pepper. Which is this: Take half an ounce of golden-seal, pour a half pint boiling water over it, and boil till the strength is pretty much extracted; then add one drachm of borax to the infusion, this frequently applied. But in the later stages of the affection, this lotion will be improved by a half drachm or one of saleratus. As before said, local means can do little toward removing the disease, as they are only palliations. But let your reliance be on general measures. As the alcoholic vapor-bath; sweat the patient copiously or till he feels dizzy, and put him to bed and let him sweat there; (then give him an alkaline-bath,) at this time cold cloths applied to the eyes is an excellent remedy. This treatment will most always relieve all pain and other acute symptoms, it occasionally happens that the disease will continue, though under a modified, and what might already be called a chronic form. After the disease has continued five or six days, it may, as a general rule, be regarded as chronic, although pain and other acute symptoms may still be present, if no means have been taken to relieve them. In such cases you may treat as before, but we must now use other means to it as in Chronic Ophthalmia.

CHRONIC OPHTHALMIA.—The change from the acute to the chronic form of the disease, will seldom appear, under proper treatment of the former, unless in serofulous treatment. One of the most marked changes of treatment now indicated, is that your local applications must be of a stimulating, instead of a refrigerant character. The packing and bathing must be continued as before, and the bowels regulated, but active depletive measures must be abandoned. The alterative or serofulous syrup should be given, as the condition of the patient may indicate. To the eye itself, the tincture of cayenne pepper, "as before said," will be a good application. It may be well at first to weaken it with twice or three times as much water, gradually strengthening it at each application, until at the end of a week, (if the symptoms requiring it continue so long) use it pure.

If the case prove obstinate, apply an irritating plaster to the nape of the neck, extending round and up behind the ears,

leaving it on at first till it produces suppuration, and replacing it occasionally until the symptoms yield. I prefer applying the irritating plaster to the arms half way above the elbow, at the deltoid muscle; also keeping up a free discharge through the course of treatment; the plaster ought to be re-spread every day or other. If the parts begin to suppurate, and should get to be irritable and painful, substitute an elm poultice for a short time, and then re-apply the plaster. Occasionally, after you have by these local and general means removed all actual inflammation, a weakness of the eye, with perhaps an intolerance of light, will remain. In such a case, combine with your stimulants some astringents, such as the tincture of myrrh, or the extract of white oak bark. If, however, you should discover that permanent irritation results from the application, that the eye gets worse instead of better, discontinue and resume cooling and soothing measures, and after a while re-apply your stimulating astringents.

CATARRHAL OPHTHALMIA.—The same general treatment may be directed as in the former case; but the local application should be more stimulating. Here the pyroligneous acid is peculiarly applicable, first diluted and the strength increased as the patient can bear.

PURULENT OPHTHALMIA, OR EGYPTIAN OPHTHALMIA.—This form of inflammation is rapidly destructive, and requires prompt and energetic treatment. The treatment must be constitutional as well as local, when the disease occurs in adults, such means being generally required as are mentioned under simple conjunctivitis. In the case of infants a few days old, local measures are mainly to be relied on. If constitutional remedies are required, they must be taken by the mother or wet nurse. These cases generally yield in a few days to repeated applications of the tincture of myrrh, it may be applied every six or eight hours.

SCROFULOUS OPHTHALMIA.—The same local and general remedies will be necessary in this disease and in the

preceding ones. Although stronger local applications are sometimes indicated, as the vegetable caustic, this may at first be introduced in a weak solution, and increased in strength as the case may require.

GORONHŒAL OPHTHALMIA.—The treatment is the same as in the preceding cases. But as a matter of course the general cause must be removed.

OPHTHALMIA TARSII, OR GRANULATED OPHTHALMIA.—This affection is in the conjunctival membrane, or white of the eye and eyelids, and perhaps originally to the meibomian glands. The secretions of these glands, being altered by the disease, become irritating, sometimes very acrid. The secretions of these glands are of a glue-like adhesiveness, sealing up the eye when long closed, as in sleep, and causing considerable trouble to separate the lids again. This secretion keeps up and increases irritation, at last the eye-lashes drop off, leaving the edges of the lids smooth, glossy and red, &c.

Treatment.—For the acute form of this affection, the treatment is the same as for “simple ophthalmia.” But if the disease becomes chronic, or if you are called to one of long standing, as you frequently will be, after it has been allowed to run on for years, constitutional and alterative treatment will be required. As local measures, apply the solution of vegetable caustic once a day, following it up with tincture of capsicum and marsh rosemary. I have cured a case of years standing, which exceeded all other means, but yielded nicely to three applications of the above local treatment. It is also necessary to prevent the “gluing up” of the eye-lids during sleep. For this purpose the lids may be lubricated before going to bed with some animal oil or common lard, &c. All other varieties of ophthalmia must be treated on general constitutional and local principles.

CHAPTER XII.

AMAUROSIS AND OPACITIES OF THE
CORNEA, STAPHYLOMA AND ULCERS
OF THE CORNEA.

AMAUROSIS.—By this disease we understand partial or total blindness, or impaired vision, arising from some morbid condition in the retina, optic nerve, or brain. The general appearance of the eye would not denote disease; the globe of the eye being without inflammation, and apparently sound and healthy.

Symptoms.—The ordinary symptoms of amaurosis are, defective vision, the impairment being more or less; sometimes the sight becomes suddenly dim, and is soon extinguished altogether, &c. The pupil is, in most cases, slightly dilated, and does not regularly enlarge and contract like the sound eye, with varying degrees of light. The diagnosis is, however, often difficult.

Causes.—It is often caused by inflammation, severe exposure to intense light, intemperance, gluttony, tobacco, alcoholic liquors, excessive night labor, &c. The predisposing cause may be organic diseases of the brain or nerve. The patient may frequently be long afflicted with headache, costiveness, dry skin, &c. Syphilis and mercurialism may be also great causes.

Treatment.—Congenital (or born with) amaurosis may be set down as incurable. If taken in its incipient stage, it may be generally or always cured. Being very essentially a disease of exhaustion, the full hydropathic system should be thoroughly and perseveringly applied. The general and constitutional treatment is mainly to be relied on, the local applications being

of secondary importance. Keep up strong counter-irritation at the back of the neck by means of the irritating plaster. This plaster when going to pack and bathing may be tied up, or left bare, as desired. All local applications must be of a very stimulating character, as the tincture of capsicum, &c.

CATARACT.—This is an opacity of the crystalline lens or its capsule. Its progress is very slow, and it generally commences without any apparent cause. Cataract is generally divided into several species, such as hard, radiated, soft, capsular, and capsulo-lenticular. This division, however, is unnecessary for practical purposes.

Symptoms.—By requesting the person suspected of cataract to open his eyes as wide as possible, and looking directly down through the pupil, an opacity or coat of a very unnatural appearance will be discovered, generally of a whitish or grey color. It is a good plan, in examining a patient, to dilate the pupil of the eye with a drop or two of belladonna, and then if there be cataract, there will be seen an opaque body of a grey bluish-white, or amber color, behind the pupil.

The patient's vision is greatly impaired, or indistinct. He appears to see objects surrounded with mists, or as if a cloud was interposed between them and the eye. The sight is better in a moderate than a strong light. Also, the sight is better after the application of belladonna, because the pupil being dilated under those circumstances, and permits more light to pass through that part of the lens which is yet transparent.

Causes.—Cataract may arise from inflammation, injuries, debility of the eye, vitiated blood, or a deranged state of the stomach.

Treatment.—Surgeons have three operations for its cure. First, breaking up the crystalline lens with needles, which is probably the best. Secondly, depressing or pushing the lens aside from the angle of vision. Thirdly, extracting the lens.

When this affection is first discovered, its further progress may be arrested and possibly a cure effected, by the same management applicable to nebulae, specks, &c. Electricity may prove beneficial in this disease. Hyosciamus, and other stimulating applications may be applied externally; internally, emetics, cathartics, and alteratives, and a general practice of bathing and dieting, &c.

CHAPTER XIII.

DISLOCATIONS.

WHEN the bones are thrown from their natural cavities, or articular surfaces, the accident is termed a dislocating or luxation. Some bones in consequence of the structure of their joints, and their exposure to violence, are frequently dislocated, as the shoulders; others again, are very rarely dislocated. When a bone is thrown out of its natural cavity, without any external laceration, it is called simple; and compound and complicated when those conditions exist, or when the bone is both dislocated and fractured, with the integuments lacerated.

Its re-adjustment is termed reduction. The mechanical means employed in reduction are extension—the force applied by the surgeon on the luxated part, and counter-extension—the force employed to fix the body in position, which may be by machinery such as pulleys, or by the hands of assistants. Dislocations are called partial when the bone is moved out of position in its socket, or on its articular surface, without being thrown completely out or off.

Symptoms.—A dislocation is known by a change in the external form of the joint; an alteration in the length of the limb; the altered axis or position of the limb. The patient may have the power to move the limb immediately after the accident. When considerable swelling has taken place, it is often extremely difficult to distinguish between a dislocation and a fracture near the joint. When muscles are ruptured, there is great effusion and inflammation in the part.

Fracture and Dislocation.—A dislocation is sometimes accompanied with fracture. When this occurs, it is proper to endeavor to reduce the dislocation without loss of time, taking care that the fractured part be strongly bandaged in splints to prevent any injury to the muscles; for, if this be not done at first, it cannot be afterward effected without danger of re-producing the fracture.

Causes.—External violence; inordinate muscular action; diseased alteration of the articular process. The last displacement is named spontaneous dislocations; as for instance, the hip-diseases, or the white-swelling.

Treatment.—The principal obstacle in the way of reduction is the contraction of the muscles, and this difficulty increases with the length of time the part has been displaced. When luxation has existed for several weeks, adhesions are apt to occur, forming a new joint or ankylosis, and rendering reduction impossible.

Very soon after the accident—before inflammation and swelling has taken place—the displaced bone can generally be re-placed with very little force. But when the muscular contraction is strong, we must employ other means to relax the whole muscular system. This can best be fulfilled by the following:—Let the patient take a warm bath followed by the alcoholic-vapor, or water vapor-bath, till free perspiration is excited. Aid this by giving the Tincture of Lobelia, or the Labelia in infusion; give this in small and frequently repeated doses, to keep the patient nauseated; after the patient has completely sweated, the whole muscular system will become relaxed, and the muscles of the whole system will become placid, so that reduction is easily completed. When then the proper relaxation has been brought about by these internal and external means, the mechanical operation of reduction should be at once effected. This consists mainly in what is called extension and counter-extension. The extension should always begin gently and gradually, till the muscles are wearied or give way. Very great resistance may thus be overcome by a comparatively slight force long continued. The limb should if possible be kept in such a position as will of itself produce relaxation of the stronger of the opposite muscles. A mode of reduction which is easy, and in most cases successful, consists in drawing the limb out of place as much as possible in the first place—that is, extending it, and then while the patient's mind is diverted to something else, making a sudden rotary motion, during which the bone generally slips into its place. The counter-extension requires considerable care so that when extension is made, the socket into which reduction is to be effected, will remain fixed and unyielding. The after-treatment is simply a bandage wet with cold water for a few days' application, and frequently changed.

DISLOCATIONS OF THE LOWER JAW.—This arises from yawning or gaping, or from a blow on the chin when the

mouth is wide open. It may affect one or both sides. The mouth remains wide open, the saliva runs constantly, and there is often alarming, but not dangerous pain.

Treatment.—The reduction is easily affected. Place two pieces of soft wood, or large corks, as far back between the teeth as possible, to act as fulcrums; then while the head is held by an assistant, press the chin steadily upward and backward. Another method is: place the thumbs on the back teeth, and the palms of the hands and fingers on the sides and under surface of the jaw; then press downward with the thumbs, and forward and upward with the hands; the thumbs must be removed as the joint slips in its place. Bandages or broad ribbons should be tied on, so as to keep the jaw in its place, and for a while to allow of as little motion as possible.

DISLOCATION OF THE CLAVICLE.—The collar-bone may be displaced at its sternal or scapular extremity; in the former case it is pushed forward or backward, and in the latter generally upward. In thin persons the nature of the injury is obvious at a glance; but with very fleshy individuals the diagnosis is sometimes difficult. Moving the shoulder, however, occasions great pain; and it is with much difficulty that the patient can move it at all.

Treatment.—By pulling the shoulder backward and slightly outward, the collar-bone is drawn down to a level with the breast-bone, when the head will readily fall into its proper place. To retain it in position, a clavicle bandage, which is buckled round the body and round the shoulders with a soft pad in each armpit, and another on each shoulder, or in other words a common bandage lapped around the shoulders behind, of the shape of a figure 8. Drawing the shoulder backwards, and retaining there for sometime. When the scapular end is dislocated, the shoulder on the injured side is depressed, and also drawn inward toward the sternum. In reduction, the surgeon standing behind the patient, places his knee between the shoulders, and draws them both backward until the clavicle sinks into its place. The arm-sling and clavicle bandage are so applied as to keep the arm pressing slightly upward and backward. Some degree of deformity will always exist after these accidents. In the former of these two cases the arm should be carefully adjusted in a sling, extending from the elbow to the wrist.

DISLOCATIONS AT THE SHOULDER JOINT.—The head of the humerus may be displaced downward into the axilla,

forward under the clavicle, backward upon the dorsum of the scapula, and partially luxated upward against the outer side of the coracoid process.

Symptoms—In the downward luxation the head of the bone is readily found in the axilla; there is a tumor-like projection in the armpit, and a corresponding hollow below the acromion process. The whole form of the shoulder is changed, the muscles flattened and the arm seemingly elongated, &c.

In the forward luxation the head of the humerus can be plainly felt, and generally seen upon the pectoral muscle below the clavicle. The point of the acromion process is very distinct, and beneath it is a considerable hollow. The coracoid process is on the outside of the displaced head, which, when the arm is rotated, can be observed to move. The elbow is thrown further back than in the downward luxation, the arm is much shortened, and there is great difficulty in moving the arm in any direction. In the backward luxation the projection of the head of the bone is apparent at first sight, and when the elbow is rotated it is seen to move. It may also be felt by applying the finger just below the spine of the scapula, &c. This variety of dislocation is extremely rare.

Treatment.—In reducing axillary luxations, the plan generally adopted by surgeons, is to place the patient in a recumbent position upon the floor or a couch; and the surgeon sitting before him puts his unshod heel on the head of the bone in the axilla, and presses it upwards, while he pulls steadily and firmly on the arm, until the head of the bone slips into its place. There is another very simple method by which recent dislocations can be easily replaced, without waiting for the regular surgeon. Place the patient in a chair and extend the luxated arm as far as possible from the side, then, with the knee in the axilla—the foot being supported on a chair, and the heel raised so as to press the knee upward—grasp the humerus above the elbow with the hand, pressing down upon the shoulder at the same time. If it is necessary you may apply the extension and counter-extension. And with the same manipulations. In the forward luxation, the extension is to be made obliquely downward and slightly backward. The resistance is usually stronger than the axillary dislocations; hence extension must be kept up somewhat longer. When the head of the bone is observed to move, the surgeon should place his knee or heel against it, and press it backward into its cavity. In other respects the management is the same as for the preceding variety. In the backward luxation the reduction is easy. After the shoulder is fixed, gradual extension is made directly outward, the head of the bone being thus moved slowly forward into the glenoid cavity. This dislocation has been replaced by

merely raising the arm, and turning the hand to the back of the head. After reduction, the arm should be carried in a sling for several days, and all motion at the joint prevented by suitable bandages.

DISLOCATIONS AT THE ELBOW.—Injuries at this point are very frequently complications of dislocation, fracture and laceration. Five varieties are distinguished of this dislocation. Both bones of the forearm may be pushed backward, or to one side; the radius may be displaced forward; the ulna alone may slip backward over the condyle of the humerus; and the radius alone may slip from its connection at the elbow joint.

Symptoms.—When the radius and ulna are both dislocated backward, the posterior projection is very prominent. The olecranon process is above the external condyle, and a deep hollow may be set on each side of it; while in front, under the tendons, the condyles appear like hard tumors. In the lateral dislocation of both bones, whether inward or outward, they are driven more or less backward. In the outward dislocation the projection of the ulna is still greater, the coronoid process is fixed at the external condyle, and the flat-head of the radius forms a projection outside and behind the elbow, with an abrupt cavity above it. In the inward luxation the head of the ulna is displaced behind or over the internal condyle, projecting in that direction, while the external condyle is made equally prominent on its side by the radius occupying the place of the ulna. When the ulna is dislocated backward, the olecranon can be easily felt behind the humerus; the arm cannot be straightened, nor can it be flexed to more than a right angle; the forearm and hand are also twisted inward. In dislocations of the radius forward, the forearm is more or less bent, but in attempting to flex it further, it is suddenly stopped before it gets to a right angle; the elevated head of the radius bears against the forepart of the humerus, where, if a finger be pressed into the bend of the arm, it may be felt moving. The hand is also in a state of pronation. In the backward dislocation of the radius, the head of the bone may be seen and felt behind the external condyle of the humerus; the arm is nearly straight, and cannot be flexed; the hand is pronate and cannot be turned.

Treatment.—The first variety is easily reduced. The surgeon places his knee on the inner side of the elbow, pressing chiefly on the displaced bones so as to keep them from bearing on the end of the humerus, and to bring the coronoid process

out of the posterior fossa, so that it can pass over the condyles, while the arm is bent slowly and steadily with considerable force. This form of luxation can generally be reduced with the aid of suitable hot water relaxant processes, a long time after the accident.

The second variety is mainly reduced by bending the arm over the surgeon's knee, as in the preceding case; less pressure, however, is usually required, as the bones do not require the same separation from the humerus.

The third variety is replaced still more readily by the same general plan. Here the bending of the arm is the principal part of the operation, the fixed radius acting like a lever to push the humerus back into its place on the ulna.

To reduce the fourth variety, the surgeon takes the patient's hand, as in "shaking hands," and makes steady extension, while the other hand is pressed strongly on the ulna side of the head of the radius, pushing it outward and upward. The arm should be slightly bent, to facilitate the reduction.

In the fifth variety, extension is to be made upon the radius, and counter-extension upon the humerus, while firm pressure is made on the head of the bone, until it slips into its place. One assistant may make the extension, another the counter-extension, and the surgeon make the pressure and direct the movements of the bone.

DISLOCATIONS AT THE WRIST.—Six varieties of luxation occur at this joint. The radius and ulna may together be displaced forward or backward, or either of them separately in either direction.

Symptoms.—When both bones are displaced forward, their projection is seen and felt under the corpus. This is caused by falling on the palm of the hand. When both bones are displaced backward, they project over the carpus; the carpal bones are thrown forward and upward under the flexor tendons, in front of the forearm. These luxations may be distinguished from sprains, or strains, by the more sudden occurrence and more uneven appearance of the swelling. When the radius alone is displaced, the external or thumb side of the hand is backward, and the opposite side inward or forward, the extremity of the radius may also be seen to form a prominence in the front of the wrist. When the ulna alone is detached, which more frequently happens, the connecting ligament is necessarily ruptured; the hand is twisted, the bone projects at its back, from where it may be easily pressed down; but when the pressure is removed, the deformity will re-appear.

Treatment.—The process of reduction is similar when both bones are displaced either forward or backward. The surgeon holds the hand of the patient in one of his, and with the other supports the forearm, while an assistant holds the arm at the elbow, and keeps that joint slightly flexed. When sufficient extension or counter-extension is applied, the bones are drawn into place by the contraction of the muscles. Compresses should then be placed upon the wrist, and secured by a roller which should inclose the limb from the tips of the fingers to the elbow; after which a splint should be added, and the forearm suspended in a sling. The same treatment precisely is required when the radius alone is dislocated. The splints should be well padded, extend along the forearm in a line with the back of the hand, and be well secured with a roller.

DISLOCATIONS OF THE CARPAL AND METACARPAL JOINTS.—Displacements of the bones of the wrist are extremely rare; but when they do occur, the hand is to be extended, and the bone pressed down into its place, and then secured by proper compress and bandages. Luxation may occur at any of the phalangeal joints, and the smaller bone may project over or under the larger, constituting the posterior luxation or the anterior. The nature of the accident will be readily distinguished at the first sight.

Treatment.—The general plan of reducing dislocated fingers and toes is as follows: The surgeon places his thumb at one of the divided extremities, and his finger at the other, then makes extension, while the joint is moderately flexed. The reduction will usually be easily effected; but if a long time has elapsed since the accident, the extension may require to be kept up perseveringly for a considerable length of time. In such cases a piece of tape is usually employed; it is fixed to the finger by what is called the "clove-hitch," and to this the extending force applied. The thumb, which is seldom dislocated, is with more difficulty reduced. It requires great extending force, during which it should be flexed toward the palm of the hand. It should also be well covered with wet tape before the clove-hitch tape is applied.

DISLOCATIONS AT THE HIP-JOINT.—The head of the femur may be displaced upward on the dorsum of the ilium

or downward, into the foramen ovale, or backward, into the ischiatic notch, or forward on to the pubes, in which case it is also thrown upward. The first variety is the most frequent, being the result of violence in an upward and outward direction.

Symptoms.—In the first variety the femur rests on the concave side of the pelvis; the limb is shortened from an inch and a half to two inches; the knee closely approximates, yet does not touch that of the other leg; the foot is turned inward; the thigh can be bent over the opposite one, and the round head of the bone can be felt moving upon the ilium. In the downward dislocation, the head of the bone can be felt by examining the inside of the thigh, especially in their persons; the leg of the affected side is about two inches longer than the other; the trochanter is less prominent than on the sound side; the body is bent forward; and when the patient stands erect, the knee projects in advance of its fellow, and is kept wide apart from it; the foot is turned neither in nor out. In the backward luxation, the head of the femur can rarely be felt; the trochanter will be found further back than natural; the foot and knee are turned inward; the knee is slightly flexed and advanced forward; the heel is raised, and the ball of the great toe rests on the base of the other great toe, and the limb is shortened from half an inch to an inch. In the forward and upward luxation, the head of the bone is at once discovered in front, and a little above the level of Ponpart's ligament, which circumstances distinguish the case from a fracture of the neck of the femur; the limb is shortened from one to two and a half inches; the knee is everted; the foot and knee cannot be rotated inward, but the thigh can be flexed, bringing them forward.

Treatment.—As the muscles concerned in this articulation are large and their resistance powerful, it is always prudent to relax the whole muscular system before attempting reduction. An admirable and very pleasant method is to give the patient a warm bath, followed by the alcoholic-vapor-bath, aid by the lobelia tea or tincture, &c. Or give the patient chloroform which will produce relaxation of the whole muscular system, the patient ought to be well prepared before taking the chloroform, or the effects may be bad, but if the patient is in good condition there is not the least danger in administering chloroform. The patient's mind must be composed, his stomach empty, and his feet bathed in warm water. Observing these rules the chloroform is a harmless agent, but in the contrary dangerous. Spirits of hartshorn or aqua ammonia is an antidote to chloroform. After the system then is relaxed, the operation of reduction may be accomplished. All of these hip dislocations can frequently be reduced, by the rotary, or

lever principle, of reducing dislocations. Surgeons have still other methods of reduction for each variety. These methods are extension and counter-extension, in the same direction, which the bone is dislocated. If, in the upward dislocation, the extension is downward; if, in the downward dislocation, the extension is upward; if, in the backward dislocation, the extension is forward; if, in the forward and upward dislocation, the extension is backward and forward.

DISLOCATION AT THE KNEE-JOINT.—The patella may be displaced outward, inward or upward; and the tibia may be dislocated from the femur forward, backward, or to either side; the lateral displacements, however, are only partial.

Symptoms.—The outward dislocation of the patella is more frequent than the inward; but in either case the knee is partially fluxed, and the joint immovable; the patient also complains of a sickening pain in it. The upward displacement, which is attended with rupture of the ligament, is perfectly obvious to the sight. In the forward dislocation of the tibia, the head of the bone is seen and felt above the front of the condyles, these being perceived in the popliteal space. There is also numbness of the feet, from pressure on the nerves and popliteal artery. In the backward luxation, the limb is sensibly bent, and somewhat shortened; the condyles project; and the flexure of the limb is backward instead of forward, the foot being drawn forward. In the later displacements one condyle of the femur rest on the head of the tibia, where the other condyle belongs, the displaced one projecting externally.

Treatment.—To reduce all the varieties of luxated tibia or knee, is chiefly by simple extension. The pelvis is fixed, and a bandage place round the ankle by which the extension is made. While the assistant pulls upon the ankle, the surgeon presses upon the separated head of the bone with his hands. After the reduction, the limb must be well secured. The roller must be skillfully applied from the toes to the groin, and a straight splint fastened along the whole length of the leg. As soon as the legament have grown together, and the danger of inflammation is over, which will be in about three weeks, the joint should be gently bent and extended every day, to prevent stiffness.

DISLOCATION AT THE ANKLE.—The ankle joint may
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be displaced inward, outward, forward, or backward. The accident is frequently complicated with fracture.

Symptoms.—In the inward dislocation, which is the most common, the foot is turned out, and a tumor is formed by the internal malleolus pressing strongly against the skin, which seems ready to burst; the joint is still moveable. A depression may generally be felt about three inches above the ankle, in which case the fibula is fractured. The outward dislocation is known by a corresponding deformity on the other side. In the forward dislocation, the foot is shortened, the heel elongated, and the toes pointed downward. The backward dislocation, which rarely occurs, is manifest to the sight.

Treatment.—The manner of reduction is essentially the same in all cases. An assistant, holding the foot by the heel and toes, flexes the leg to a right angle with the thigh, and while the thigh is held fast by another assistant, just above the knee, makes extension at the ankle, the surgeon at the same time pushing the end of the tibia into its place. Splint and bandages are necessary, and wet cloths must be frequently applied, as there is usually considerable inflammation.

DISLOCATIONS OF THE FOOT.—When the tarsal or metatarsal bones are displaced, the nature of the injury is obvious. Reduction is effected by extending the foot and pressing upon the displaced bone at the same time. Compresses and bandages are necessary, with the aid of a splint. Dislocations of the toes are managed precisely in the same way as dislocated fingers.

CHAPTER XIV.

FRACTURES.

FRACTURE is a division of bone into two or more fragments, generally occasioned by external violence. Fractures are called simple, where the bone has been divided and the integuments remain unimpaired. Compound, where there is a corresponding wound in the soft parts by which the fractured extremity of the bone becomes exposed. Again, fractures are divided into, 1. Transverse, which are such as take place directly across the bone; 2. Oblique, when they deviate from a perpendicular direction; 3. Longitudinal, when a fracture runs parallel with the axis of the bone, which is a very seldom occurrence. Some add a fourth kind, comminutive, when a bone is broken into several pieces, or crushed into fragments. Fractures complicated with violent contusion of the soft parts, or with a wound, rendering them compound, are much more dangerous than those which are free from such accidents. The unfavorable symptoms which render compound fractures so dangerous, are of many kinds, viz: hemorrhage, extreme pain, delirium and fever, &c.

GENERAL MANAGEMENT OF FRACTURES.—

Although a few general principles are applicable to all cases, so great is the difference of circumstances attending these accidents that much must be left to the sound judgment and mechanical skill of the operator. A variety of splints, bandages and other apparatus have been invented, intended to keep the injured parts in contact until the broken parts of the bone unite.

The process of re-union is as follows: coagulable lymph, fibrin and blood, thrown out by the vessels of the part form a material which slightly glues, as it were, the bones together soon after the injury. In the next place a provisional cartilage is formed around the parts like a sapsule, firmly supporting them. This gradually hardens, by ossific deposits, into a bony

ring, called the provisional callus, which binds the parts still more firmly together. After this the proper substance of the bone is formed—the ossific process going on for several months or a year; and when it is completed, the provisional support is removed by absorption. The provisional union ordinarily begins between the sixth and tenth day, and is completed in four to six weeks. The sooner, however, that fractures are adjusted, the better; and about the sixth or seventh day, when “knitting” may be expected to commence, the part should be examined and accurately adjusted, if need be, after which it only requires to be kept quiet. Great care must be taken to have the part easy and quiet from the sixth to the twelfth day—in old persons for eight or ten days longer, after which slight motion may be allowed. The symptoms of provisional ossification, “knitting of the bone,” are itching and prickling sensation in the part.

FRACTURE OF THE CRANIUM, OR SKULL.—Any of the bones of the skull may be crushed, the fracture extending in different directions, from a central point, or cracked through one or both plates in a straight line. The skull bone may also be bent without being fractured. In the case of fracture, a grating of the ends of fractured bones can be felt through the skin; and if any portion of bone is driven in upon the brain, symptoms of compression will be present.

Treatment.—All the constitutional and local measures heretofore recommended for compression must be employed in connection with a peculiar treatment for any degree of inflammation that may attend. But if the symptoms of compression continue after the inflammation has subsided, the depressed bone must be elevated by trephining, which must only be attempted by skilful anatomists.

FRACTURES OF THE NOSE.—A violent blow upon the nose may not only break in the nasal bones, but the processes of the ethmoidal bone, and do great injury by rupturing the membranes of the brain. Commonly, however, a nasal fracture is of trifling importance. They can be adjusted by pushing out the depressed bone by a silver catheter, or some similar instrument, introduced within the nostril, while the fingers support them on the outside. The surface should be covered

with cold wet cloths, and compress or bandage to prevent inflammation and swelling. Adhesives and recovery will be speedy.

FRACTURE OF THE LOWER JAW.—This bone may be broken at any part; but the accident most commonly occurs near the chin. The crepitus, or grating of the ends of fractured bones, felt on moving the bone, will determine the exact locality of the fracture; also a depression may be felt at the place.

Treatment.—The adjustment is effected by elevating or depressing until all the teeth are arranged properly with respect to each other, and to those of the upper jaw. Should one of the condyles be displaced at the same time, it must be reduced previously to setting the broken bone. The jaw must be secured—the mouth being kept shut—by means of a strip of adhesive plaster, two and a half inches wide, extending from ear to ear over the chin. Over this a bandage of strong muslin two yards long and two and a half inches wide, split from each end to within six inches of the middle, is to be applied. A hole is made in the centre for the chin, the two lower ends are brought up over the top of the head, and the two upper ends are carried horizontally round to the back of the neck; several turns with each pair are then made over and around the head, where they are fastened at their ends and also at each crossing. In the absence of adhesive plaster, the compress and roller will answer every purpose. The compress under each ramus is held by an assistant until fastened by the first turns of the roller, which is an inch and a half in length, and four or five yards long. The first vertical turns are repeated over each other several times, followed by the horizontal ones above the ear over the occiput or back part of the head and forehead, and lastly, several turns below the ear and lips. Pins or stitches are applied wherever the roller crosses or changes direction.

FRACTURES OF THE SCAPULA, OR SHOULDER BLADE.—When the body of the bone is fractured across, there is scarcely any deformity; but a crepitus is easily recognized on pressure.

The Treatment in such a case consists in applying bandages around the chest and over the shoulder so as to prevent all motion of the parts, keeping their surface wet and cool, placing the head and fore-arm in a sling, and keeping them very quiet.

When the acromion process is fractured, a depression is manifest; the separated portion of bone is drawn downward and forward, and, on pressing the arm upward, a crepitus may be felt. The adjustment consists in pressing the humerus up, by which the fragment is carried to its place, and securing it by the clavicle bandage, omitting the pads or compresses under the arm. The neck of the scapula may be so fractured as to involve only the glenoid cavity and the coracoid process, leaving the acromion entire. This case is apt to be confounded with a dislocation. The fracture may be distinguished from dislocation by the crepitus perceived on pushing the arm upward and outward, with the thumb placed on the coracoid process, and the fingers in the axilla. The parts can easily be replaced and held in opposition by the clavicle bandage and a wedge-shaped pad under the arm.

FRACTURE OF THE CLAVICLE.--This is a very common accident, and easily distinguished. The "collar bone" usually gives way near the middle with an "oblique fracture." Passing the finger along the edge of the bone from the sternum, will readily show the point and direction of the split. A considerable tumor often forms at the place. Frequently a spicula of bone will be found protruding through the skin, constituting the case of "compound fracture." Crepitus occurs in moving the shoulder, which is drawn forwards and inwards by the contraction of the pectoral muscles.

The adjustment and dressing are essentially the same as in the case of a dislocated clavicle at its scapular extremity. The surgeon, placing his knee between the shoulders, draws them both back until the parts of the broken bone come into their proper position; and, while the shoulders are kept back and the arms down, by suitable apparatus, (or the hands of assistants) the bandage is applied.

FRACTURE OF THE STERNUM.--The breast-bone is never broken, except by great force directly applied. The accident is manifested by a depression at the injured point, and pain and crepitus which attend the movements of the thorax in respiration. Its adjustment requires the roller around the chest, so applied as to stop all motion; the respiration being carried on wholly by the abdominal muscles.

FRACTURE OF THE RIBS.—The ribs may be fractured at their vertebral or sternal extremity. The former case is frequently accompanied with dislocation. The latter, though generally called “dislocating the cartilage,” is really a rupture, and a rupture is much more like a fracture than a dislocation. A depression and crepitus may be detected by passing the finger along the rib. If the cartilage is torn from the rib, this bone will project.

In treating these cases, direct the patient to take a long inspiration, and then hold his breath for a short time with the lungs well filled. In this expanded condition of the chest, press the bones or cartilage down to the proper place, and fit on the part a piece of wetted paste-board, or what is better, of the gum shellac cloth, (see Hip Disease.) Let it be long enough to extend one-third the way round the chest, and wide enough to cover one or two ribs on each side of the broken one. Adhesive plaster may be spread on the cloth, this may prevent the ribs from sinking in when the lungs contract. For greater security against any shrinking, let your bandage be of flannel. Pass it round the chest, from the arm-pits to the lower end of the sternum, so as to prevent all motion of the ribs in respiration or breathing. Union will take place in two or three weeks, after this the bandage may be removed, but the plaster should be kept on a few weeks longer.

FRACTURE OF THE SPINE.—The transverse process of the vertebræ may be broken off without serious inconvenience or danger, and may be treated like fractured ribs. When the body or articulating surface is fractured, the injury is incurable. Fractures about the fourth vertebræ of the neck cause instant death; above the lumbar vertebræ, they are fatal in a few days. Paralysis affects all the parts whose nerves are derived from the spinal cord below the point of injury.

FRACTURE OF THE PELVIS.—These are only caused by very great violence, of a crushing kind. They are always dangerous. The patient should be placed in an easy horizontal position, and handled as little as possible. “The preceding case ought to be treated in the same way.” The nature of the injury will aid the diagnosis as to the particular point of frac-

ture; and crepitus can generally be felt by placing the hand on the crest of the ilium, while motion is made at the spine or lower extremities. A roller applied round the pelvis in such a manner as to keep all the bones in proper juxtaposition, or opposition. Then have a strop passed under the nates, and attached to a pulley suspended over the bed, so that the pelvis may be raised without any muscular effort on the part of the patient. All possible precautions, topical and general, must be taken against inflammation. If, however, the injury be severe, but little hope of saving the patient can be had.

FRACTURE OF THE HUMERUS, OR ARM.—This bone is generally broken near the middle, but may be broken near either extremity; when broken near the neck, the injury is not easily distinguished from dislocation.

Symptoms.—A fracture in any part of the shaft of the bone is easily detected. There is obvious deformity. A crepitus can be noticed by rotating the lower portion of the arm, while the upper part is fixed. The direction and extent of the fracture may be ascertained by tracing from the condyles upward with the finger.

Fracture of the neck seldom occurs except in old persons. By rotating the arm below the elbow, a crepitus will be felt. The roundness of the shoulder is not diminished, as in dislocation. Fractures near the condyles are liable to be mistaken for dislocation of the forearm. When the fracture is above the condyles, the arm will be shortened; and in all cases the grating of the broken pieces can be felt; the motions of the elbow are but little impeded in fracture, which is not the case in dislocation.

Treatment.—When the shaft has been broken, sufficient extension must first be made; the fractured arm is next to be accurately adjusted, so that the appearance and length of the limb will compare well with its fellow; the roller is then to be applied—the parts being held in opposition, meanwhile, by an assistant—rather loosely from the elbow to the shoulder. Then place on four splints about a quarter of an inch thick, and of a convenient width, so as to cover nearly the whole surface of the arm. Let them be nearly as long as the humerus itself, the inner one being a little the shortest, so as to allow the elbow to be bent. Then continue your roller, bringing it down again over the splints from one end to the other a sufficient number of times to fix them firmly to the arm, and prevent any

motion or contraction of the muscles. The forearm and hand must be suspended in a sling from the neck. When the neck of the bone is broken, a wedge-shaped pad in the axilla or arm pit, is necessary; the shellac or paste-board splint should be applied on the outside and over the top of the shoulder, and the whole fastened by the clavicle bandage. In fracture above the condyles, after the proper adjustment, the roller is to be applied loosely around the arm and forearm, and then over two angular splints, which should reach nearly from the shoulder to the wrist, one being applied on the front and the other on the back of the arm. The best splint in these cases is, the double inclined concave plane or splint, invented by Dr. Beach. These may be easily and cheaply constructed, in the following manner: Take two pieces of pine or white wood, of a sufficient length and width, hollow them out to receive the arm and forearm, (or to the thigh and leg in the same manner), the upper part, should be formed wider and deeper than the lower, to suit the arm, or thigh, "in whatever case you may use it," it should be made smooth and thin, and rounded externally, to correspond with the shape of the limb. It should be fastened in the middle by a hinge. But it will most commonly answer, to have it nailed together, and thus have it immoveable. Such an angle, however, must be formed, as will keep the limb, when placed in it, considerably flexed. It may be lined with buckskin or not, this being a matter of very little importance, except it were to fasten buckles or straps to it, and to give it a better appearance; or, what will answer the purposes as well, is to have it made in a common manner. This apparatus may be made, in cases of emergency, in half an hour; but it is better to keep one or more ready made. I would prefer the gum shellac splint made in this manner, as it may easily be made and fitted. When the condyles themselves are fractured, the separated portions of bone are to be pressed together, and a splint or cloth cap applied reaching to the waist, preceded by the roller. Some degree of deformity will always exist after these injuries. In this case no other splint or cloth should be used except the shellac cloth. This cloth can be put in warm water and made pliable, and then just exactly fitted to suit the case. It ought to reach to the wrist. In about twenty days remove the first splint, and substitute another, less bent, and take the opportunity of making a little passive motion of the arm backwards and forwards. Keep this on for two or three weeks, and then apply a still straighter one, &c.

FRACTURE AT THE ELBOW JOINT.—The Olecranon process is sometimes broken off and drawn up on the back of

the arm, leaving a depression between it and the joint. If, however, the ligaments be not ruptured, little or no retraction may take place. There is great pain at the part, and the patient is unable to straighten his arm, though he can bend it easily. In treating this accident the first means is to subdue inflammation; then, bandage the forearm pretty tightly from the ends of the fingers to the bend of the arm. Then bring down the fractured end of the bone to its proper place and include it in the turns of the roller, which should be continued at this time for some three or four inches further up. Bring back the roller and pass it above and below the joint in the form of a figure "8" for ten or twelve turns. After that, turn it round the arm again and continue upwards, including all the upper portion of the arm in order to prevent the contractions of the triceps muscles from again separating the parts. Place over the bandage, in front of the joint, a strong splint, in order to prevent all flexion, and keep the joint constantly wet with cold water cloths. After two or three weeks, passive motion of the joint should be commenced, and continued from day to day, increasing the extent and amount as the patient can bear it.

The caronoid process is sometimes fractured separately, attended necessarily with a backward luxation. It hinders the bending of the elbow. Its adjustment only requires the flexure of the forearm, and its retention in that position by proper bandages and splints. This fracture, and also the two preceding, unite by a ligamentous, instead of long connection.

FRACTURE OF THE FORE-ARM.—The radius and ulna may both be broken through, or either of them alone. These common accidents may be ascertained by tracing the bones from the wrist up, until when the finger comes to the divided part a depression is felt; by the crepitus on fixing the elbow and rotating the wrist; and by the pain, and more or less loss of motion in the hand.

In the treatment of the fractures, the only point of precaution is to keep the bones apart, so as to prevent their being drawn into the interosseous space, (by the provator and supinator muscles.) The bones thus uniting, would forever prevent the circular movement of the radius round the ulna, and the full use of the hand. After adjusting the fracture by extension from the wrist, bend the arm a right angle, having the thumb directly above the little finger, that is mid-way between pronation and supination. Then apply a roller loosely, and over it two splints, one from the internal condyle, to the palm of the

hand; another on the outer side, from the external condyle to the back of the wrist. These splints should be convex on the side next the arm, and padded with cotton or have a cotton compress laid beneath them, between the bones, so as to press into the interosseous space. After this matter is attended to, secure the splints by a roller, extending from the hand to the elbow. When the radius alone is fractured the hand may hang loose, and thus exert some degree of extending force on the bone. When the ulna alone is broken the hand and forearm should be kept in the same line, and the splint and bandage should extend to the ends of the fingers. The splints should in all these cases, as a general rule, be worn ten or twelve days; but the compress and bandage should be continued a week or two longer.

The only point of difference in the treatment of a fracture at the lower end of the radius, is in so adjusting the pads and compresses that they may aid in keeping the two bones apart and the fractured portions together at the same time. Though passive motion may be employed in three or four weeks to prevent ankylosis, no great exertion should be made by the hand for several months.

FRACTURES OF THE WRIST, HAND, AND FINGERS.—The carpal, metacarpal and finger bones are occasionally broken. The case is an obvious one. The treatment required is to apply a broad splint so cut as to fit the front of the wrist and hand, with the ends slit for the fingers. Splints may be also applied to the back and sides of the fingers. Pad the parts so as to make the pressure equal, and secure the splint with a roller. Should only a finger be broken, it may be set and fixed by four small splints and bandaged with tape; but it will be better and safer to have the whole hand and wrist secured up to the middle of the fore-arm as above directed.

FRACTURE OF THE THIGH.—The neck of the femur or thigh bone, may be fractured within or without the capsular ligament; the trochanter major may be broken obliquely; and the shaft at or near the trochanters, in its middle, or near the condyle.

Symptoms.—The fracture within the ligament generally unites by a ligamentous substance, or a double joint is formed,

and the limb permanently shortened. The accident is known by the inability to stand on the leg, the limb being shortened one or two inches, the knee and foot turned out, and the heel inclined to rest on the other limb above and behind the malleolus. Severe pain is felt on moving the limb, and a crepitus will be recognized on rotating it. In fracture outside the ligament, the pain and swelling are greater—often extreme; the limb is not materially shortened nor everted, and crepitus is more easily felt. When the bone is fractured obliquely through the trochanter major, the leg is everted, a little shortened, and a fissure can be felt between the shaft and trochanter. When the shaft is broken just below or near the trochanters, the psoas and internal iliac muscles draw the superior fragment of bone upward and forward, causing great pain and deformity. When the shaft is broken between the trochanters and condyles, the deformity, crepitus on extension or rotation, and inability to bear weight upon the limb, determine the nature of the case. If the fracture be oblique, the limb will be much shortened by the broken parts slipping by each other; and this may be the case also in transverse fractures. The condyles of the femur are seldom broken except in old persons, and the accident is not unfrequently fatal.

Treatment.—Dr. Beach recommends the most simple plan, of treatment here the best. Fomenting and steaming the hip, and then applying a strengthening or adhesive plaster over the whole hip, and directing the patient to lie in a recumbent and easy position, by slightly bending the limb, and placing a pillow underneath it. The patient ought to lie on a hair mattress, or any substantial bed; using that kind of diet that is the least calculated to excite inflammation; and a continual adhesive or strengthening plaster over the whole hip when the inflammation has subsided. The instruments recommended for this species of fracture are of very little use. I have sometimes thought of applying to the limb in these cases the double-inclined concave plane, or splint, used for fractures of the femur, but I know not that it would be attended with any better effect than the course advised above.

The preceding is Dr. Beache's treatment as he gives it. Mr. Liston's plan, applicable to all cases, as detailed in his own language, is as follows: 'Whether the fracture is suspected to be within or without the joint, either entirely or partially, the broken surfaces are to be brought in contact and retained immovably in opposition for a time sufficient to admit of union. The limb is put up in apparatus not requiring removal, and but little adjustment. This can be effected only in the extended position. But the apparatus which is most simple, easily to be procured at all times and in all circumstances, is at once the best and most efficient. This is a straight wooden board, not

so thick as to feel burdensome, and not so thin as to be pliable or easily broken; in breadth, corresponding to the dimensions of the limb; in length, sufficient to extend from two, three or four inches beyond the heel, to near the axilla; deeply notched at two places at its lower end, and perforated by two holes at the upper. The splint, well padded, is applied to the extended limb, the ankles being protected by proper adjustment of the pads. The apparatus is retained by bandaging, a common roller is applied round the limb, from the toes to near the knee, so as to prevent infiltration, which would otherwise follow pressure above by the rest of the apparatus. The splint is then attached to the rest of the limb by involving both in a roller from the foot to above the knee; and, in doing this, the bandage, after having been turned round the ankle, should be passed through the notches, so as to be firmly attached to the end of the splint, thereby preventing the foot from shifting. A broad bandage is applied round the pelvis, over the groin and down the thigh, investing all that part of the limb left uncovered by the previous bandaging, &c., &c." I prefer Dr. Beach's course of treatment in this case. The oblique fracture of the trochanter major is managed precisely like the preceding case. When the shaft is fractured, the most important point in surgery is to prevent the shortening of the limb. The patient is placed in a sitting position, by which the psoas and iliacus muscles are relaxed, and the ends of the bones approximated. Extension is then made until the two limbs correspond; the roller is next applied from the toes to the hip; three splints are then placed over the first bandage; one in front from the patella to the pelvis; one from the external condyle to the trochanter major; and one from the internal condyle to the perineum. All the splints are to be firmly fastened with a roller, when the limb should be placed on the "double-inclined concave splint" (see fractured arm) or supported by some similar apparatus. Three separate rollers are commonly employed; the first is so applied about the knee, the second above, and the third below the knee as to admit of its being bent. When one or both condyles are fractured, the limb is to be straightened so that the head of the tibia will press upon the condyles, and secured with rollers and splints.

FRACTURE OF THE PATELLA.—This bone is generally broken transversely; the upper fragment is drawn up by the rectus femoris; the patient cannot straighten the limb, and the fissure between the broken portions can be seen and felt.

Treatment.—In this accident lay the limb perfectly straight, and secure it in that position with a stiff splint placed on the

back of the thigh, extending down the calf of the leg. Apply a roller from the toes to the knee, and affix the splint firmly to the thigh. Use emollients and fomentations, if there be inflammation, to subdue it, or cooling lotions to prevent it until all danger be passed. The divided parts may be brought together by straps, buckled around the limb above and below them, and drawn together by other straps attached to them, which pull the circular ones up and down until coaptation is complete. When the broken parts are not accurately adjusted, the union will be ligamentous instead of osseous. When fractured longitudinally, the leg is to be extended, the parts brought together and secured by bandage, compresses, and paste-board splints. For the difficult object of fixing the patella in its place after dislocation, or keeping its segments together after fracture, an ingenious apparatus has been quite recently invented. This consists of a ring or case exactly fitting the knee pan or patella, two springs (one up the thigh, the other down the shin,) and three straps and buckles. The patella case may be described as a tubular ring or shallow cylinder, very slightly funnel-shaped, about two inches in height, made of heavy tin, with the lower edge rolled outward and the inside padded and lined with buckskin. This is exactly fitted over and round the patella, and firmly secured by the strap going twice under the knee, and through the loop or steeple on each side. Besides this strap, the curved springs exert a constant force, tending to press the cylinder down closer, the tendency of the other ends to rise being counteracted by the straps round the leg and thigh. After the certain period, the use of the joint could be gradually resumed, the apparatus in front being thus worn till union is complete.

FRACTURE OF THE TIBIA AND FIBULA.—These accidents are readily detected by the deformity, pain, crepitus, &c.

Treatment.—When the head of the tibia is fractured, the management is the same as for fractured condyles of the femur. What is commonly termed “broken leg,” is a fracture of one or both bones between the knee and ankle. The double-inclined splint apparatus, or some similar contrivance, is here necessary. The application of the roller, which is the first part of the dressing, must begin at the toes, as in the case of ulcers. This bandage is applied before the bones are fully adjusted, and not so tight as to prevent further extension. In all fractures the great toe is to be kept in a line with the inner edge of the

patella. In oblique fractures, after the provisional application of the roller, the limb should be placed on the inclined splints, and extended until the two limbs compare exactly; the foot is then to be fixed to the foot-board by straps that will not stretch.

FRACTURE ABOUT THE ANKLES.—By twisting the foot outward, the fibula is sometimes broken about three inches above the ankle, accompanied with partial or complete dislocation of the ankle joint. The internal malleolus, by projecting, forms a tumor; and when the foot is moved, crepitus can be felt just above the external malleolus. The tibia is sometimes fractured near its lower end; it may be transverse, extending through the fibula; but is generally oblique, with the internal malleolus also broken. The foot is turned inward, and the crepitus is felt on the inside.

Treatment.—In the first variety, the dislocation must be reduced before the fracture is adjusted. The fractured parts are to be kept in place by one splint at the back of the leg, another along the fibula, the foot-board, and the usual bandages. In the second variety, a splint is to be applied on the side of the tibia.

FRACTURE OF THE FOOT.—Nearly all of these cases are connected with severe contusions and lacerations. The medical treatment is rather more important than the surgical. The cold water-dressings and bandages must be employed with a vigor proportioned to the intensity of the inflammation, and the fractured bones kept in their places by paste-board or shellac splints, compresses and bandages applied to meet the indications of each case. When fractured or dislocated parts are very painful or badly swelled, from inflammation, this must be subdued before adjustment or reduction is attempted.—Adjustment or reduction is also always greatly facilitated by previously bathing the part in as warm water as can well be borne. Also in all cases of fracture or dislocations involving the structure of a joint, very gentle or passive motion should be made at the joint as early as is consistent with safety, to prevent ankylosis, or stiff joint. If made too soon, however, there is danger of re-displacement. The time and extent of this motion must be determined by the nature and place of the injured, the age and health of the patient, &c.

CHAPTER XV.

PARTICULAR OPERATIONS.

TREPHINING.—The necessary instruments for this operation are a large and small trephine, (or cylindrical saw,) a Hays' saw, an elevator and a scalpel. The other instruments which may be required, such as needles, forceps, &c., when the operation is performed for a fracture of the skull, a small opening is sufficient; but when the object is to evacuate matter, it should be larger. A flap is made through the scalp in the shape of the letter D—the circular side of which is raised, when loose fragments of bone, if present, are to be removed. The lining membrane of the bones (pericranium) is next to be separated, or a circular incision made through it for the edge of the instrument. The trephine is to be applied so that the centre-pin will rest on a sound portion of the skull; the instrument is then turned steadily forward and backward, gentle pressure being made upon it at the same time, removing it frequently, and clearing the teeth with a brush. The groove must also be examined frequently, and the dust and blood removed with a piece of wetted sponge. When the groove is deep enough to steady the instrument, the centre-pin is to be withdrawn; and as soon as any point of the bone is cut through, an attempt should be made to raise the piece of bone within the circle. But if it does not succeed, the sawing should be very cautiously continued until the bone is nearly cut through all round, when it may be detached with ease. After purulent matter or extravasated blood is removed, or the depressed portion of bone elevated, the scalp is to be replaced and secured with the wet compress. The trephine should not be applied over a suture, nor over the course of the middle meningeal arteries.

PARACENTESIS CAPITIS.—The operation of puncturing the head has been resorted to in some cases of external dropsy.

One of the fontanelles is the joint usually opened; the fluid is drawn off very gradually, so as to avoid fainting. The wound heals readily, but the operation is seldom successful. The cranium must be compressed during and after the flow, to prevent a rush of blood, on the withdrawal of the accustomed pressure, on the vessels. The operation has had to be repeated even in successful cases.

PARACENTESIS OCULI.—This tapping of the eye should be regarded as a mere palliative, requiring the same means afterward to obviate re-accumulation, which if used in time, or to a sufficient extent, would have prevented the necessity for resorting to it. A common lancet or couching needle may be introduced behind the junction of the cornea with the sclerotic coat, into the posterior chamber. Some surgeons puncture the anterior chamber through the cornea.

FISTULA LACHRYMALIS.—In this operation for fistula lachrymalis, place the patient in a sitting posture, and stand behind him. Have a small sharp pointed scalpel, bistoury, or cataract knife, and, holding it perpendicularly to the eye-brows, direct the point to the inferior margin of the internal tendon of the eye-lids, (*tendo oculi*) which can be clearly seen by drawing both lids outwards. The point of the instrument is pressed directly downward until it enters the sac, which will be denoted by a flow of tears and mucus. The opening should be slightly enlarged outwardly as the knife is withdrawn. A probe, curved a little forward and inward, is then introduced, and, if necessary, pushed through into the nostril, when a tube, style, or lent is inserted.

ENTROPION AND ECTROPION.—The inverted lid can be restored by cauterizing the outside of the lid, or by incising the mucus membrane. Eversion is cured by the same treatment as inversion.

ANCHYLOBLEPHARON AND SYMBLEPHARON.—The first of these terms is applied to a growing together of

the eye-lids, which may be remedied by the use of olive oil; and the second, when the lids adhere to the eye-ball. They are sometimes dissected apart, but the operation is not often successful.

EXTRACTION OF TEETH.—Forceps are becoming more and more in use every day to extract teeth, and are of course superior to the turn-key or hook. If we have four different forceps we can pull any tooth in the jaws, excepting in ossification to the alveoli. The forceps necessary are a small and a large straight, or incisor forceps.. And a small and a large angle, or molar forceps. For the extraction of parts of teeth and fangs, the small straight, and the small angle forceps are used, of course these being almost pointed, or pretty much so. With these four forceps I would undertake to take every tooth, and particle of tooth out, without injury to the jaw or gums, and with less pain, than with the turn-key.

Before extracting a tooth always separate the gum completely with a "gum lancet," even down to the very bone, &c. Then seize or grasp the tooth with the forceps, pressing the blades firmly down to the alveolus, or jaw bone, and by steady force in the most direct line of the fangs, with slight lateral motions to loosen them, draw it out. In extracting these molars or back teeth, I find the very greatest improvement is to have an iron rod, or steel bar come up at the side of the chair, parallel with the patient; this must be fixed that it is firm and wont give way, then an iron (or of any suitable metal,) must be made to come over at a right angle, and this must be fixed with a screw to move up or down as the patient's size requires, this acts as a fulcrum to rests your forceps on; if you want to extract a tooth in the lower jaw place the forceps on the superior side of the fulcrum, if above, on the inferior side of the fulcrum. Thus the tooth is perpendicularly raised out of its socket. Which patients experience only half and not that much pain, to the regular mode of extraction. Nor is there the least danger in fracturing the jaw bone, and lacerating the gums, &c. Patients come away from their regular graduated dentists, and come to my house to have teeth taken out in this manner, and they say they experience little or no pain by this mode of extraction. One day a young gentleman came to my house to get a tooth taken out. After being in conversation with him for some time, he informed me, that he had a bad tooth in his mouth which he wanted out for some time, and that several doctors had been at the tooth, and had broken it off, almost or altogether down at the very jaw bone. I looked at the tooth; he then enquiring

whether I could take it out on the first pull, as he had suffered such tremendous pains, while the other doctors had given it several trials. I informed him I thought I could fetch it out on the first pull; he then asked me to try and do so. I lanced the gums again, which were lanced by the other dentists previous to his coming here—and then applied my fixing, and succeeded in taking it out very easy by the first pull, and astonishing it was to the gentleman, as he informed me it did not give him the least pain. He insisted upon it, that it gave him no pain while I was taking it out. The tooth was a great one, with a kind of a head at the end of the fangs. I have taken dozens of them out that were reported in the above manner, without one-fourth the pain experienced by dentists. Extracting front or incisor teeth, circular motion should be made with the traction. Hemorrhage can easily be stopped by taking cold water into the mouth, or styptics, &c., if necessary.

PUMPING THE STOMACH.—The introduction of the common stomach-pump requires no special directions; but in emergencies, as in cases of poisoning, the stomach can be emptied by introducing the elastic tube to the common injecting syringe, using the the syringe itself as the pump. When it is withdrawn, the outer end should be closed, so that whatever liquid it might contain would not run back into the stomach.

CATHETREISM.—This term applies to the clearing and enlarging of various canals in the body, but is usually understood as pertaining solely to the passage of the cathetre through the urethra into the bladder. Either a straight or curved tube can be inserted by any one familiar with the anatomy of the parts.

To introduce the male cathetre most conveniently, place the patient on his back with the shoulders somewhat elevated; the cathetre is held at a right angle to the body until its point reaches the arch of the pubes, and then depressed to a level with the thighs, when the point of the instrument will slip over the triangular ligament and enter the bladder. The female cathetre is easily introduced, as the thickened edge of the urethra can readily be felt about an inch behind the symphysis pubis, at the upper edge of the vagina.

Common cathetres for the urethra are made of silver or gumelastic. When the later is introduced, a wire is contained

within the tube to prevent its bending on meeting with resistance in its passage.

A cathetre is sometimes passed into the Eustachian tube to clean or enlarge it; the orifice of the tube is about a quarter of an inch behind the soft palate, and is large enough for the insertion of the little finger. The instrument is passed through the nostril with its convexity upward, until the patients gags, when, by turning the point further toward the affected side, it will slip into the tube, or the point may be directed into it by the finger introduced through the mouth.

INOCULATION.—This operation has thus far been confined to vaccination—the introduction of the kine-pox virus as a preventive of small-pox. The skin is slightly scratched or cut with a sharp lancet or needle, and the vaccine virus previously moistened, rubbed on the abraded surface. Three or four punctures are sufficient.

ESOPHAGOTOMY.—The gullet has sometimes been opened to extract foreign bodies, and to introduce food into the stomach. An incision is made between the tracheo and sternocleidomastoid muscle; and the dissection made chiefly with the fingers, to avoid the recurrent nerve, the frocia being cut with the protection of a director. The operation may prolong, but seldom saves life.

Choking is generally produced by some substance lodging above the cricoid cartilage. By opening wide the mouth, the article can generally be loosened with the finger, a fork, teaspoon, spoon-handle, or curved forceps. If it has passed below reach in this way; it may be pushed into the stomach with a probang a piece of whale-bone, having a rounded end, and covered with silk; or withdrawn by means of an air pump.

LARYNGOTOMY.—This operation is sometimes necessary to remove foreign bodies. An incision is made through the skin from the lower side of the prominent part of the thyroid cartilage to the lower border of the cricoid cartilage. The skin

is then separated, and the cellular membrane ruptured with the handle of the scalpel, between the sterno-hyoid muscles down to the crico-thyroid membrane, when the point of the scalpel is passed through this membrane.

TRACHEOTOMY.—The trachea or windpipe is sometimes opened in order to extract foreign substances. The middle line is the place generally operated on, extending from near the upper end of the sternum to the cricoid cartilage.

PARACENTESIS ABDOMINIS.—“Tapping,” as this operation is usually called, is performed in ascites, or dropsy of the abdomen; it is reasonable whenever the fluid is contained in a cyst, and when all the usual means for promoting the absorption of the fluid have failed. And the patient is fully prepared, by a restoration of all the excretory vessels, particularly the kidneys. The patient sits in a chair; a bandage is made of a sheet folded about half a yard wide; this is placed around the abdomen, with a hole in front through which to operate, and crossed behind the back, where the ends are held by two assistants, who are to tighten it as the fluid escapes.

The surgeon then makes an incision in the linea alba, two or three inches below the umbilicus, or navel, with a sharp lancet or bistoury, through which introduce a diamond pointed trochar, inclosed in a canula, and pass it into the cavity. Withdraw the trochar, leaving the canula in the orifice to conduct off the fluid. The fluid is received into a proper vessel, while the assistants are directed to draw gradually upon the bandage so as to keep a firm pressure upon the abdomen as the fluid escapes, lest by too suddenly taking off the pressure upon the abdominal vessels, the blood settle down into them from the heart and cause fainting, or even burst the coats of the vessels and cause fatal internal hemorrhage or bleeding. The fluid being drawn off, the patient is put to bed in a horizontal position, the wound closed with an adhesive strap, and a bandage applied round the abdomen. If faintness occur during the flow of the fluid in spite of your bandage, you must stop the flow; lay the patient down, and wait a few hours, or perhaps a day or two, before the remainder portion of the fluid is evacuated. The only dressing required is the adhesive strap,

and a very tight bandage; the patient must keep very quiet for several days, and then resume habits of exercise very gradually.

IMPERFORATE ANUS.—Children are sometimes born with the integument closed over the rectum, which can be observed swelling beneath. A simple incision will remedy the difficulty. When the rectum cannot be reached, and in cases of the closure in the adult in consequence of disease, the only remedy is an artificial anus. This is usually made by cutting in the loins to the descending colon, and attaching the bowel by two ligatures to the lips of the wound; an incision is then made into it, and the lips of this wound more closely united with those of the first.

IMPERFORATE URETHRA.—When this is a congenital inflammation, a round trochar is to be inserted followed by a canula, and then by a catheter, and this is retained until the new orifice becomes water-proof.

LITHONTRIPSY AND LITHOTOMY.—Each of these modes are resorted to for stone in the bladder. The former consists in crushing it in the bladder with an instrument called the lithontripor, and is only applicable to adults when the stone is soft and small; and the latter consists in cutting into the bladder with the knife. The operation of lithontripsy is more frequently applicable to the female, by reason of the larger diameter, and shorter urethra.

In the latter operation the urethra must be dilated by bougies until the instrument will pass. This instrument is then oiled and passed in the bladder, while closed, as a common bougie. When it comes in contact with the stone, the moveable half is pushed in, by which the blades are opened at the several joints: it is then rotated from side to side, tightened occasionally, &c., so as to grasp the stone; when fixed between the blades—which fact is known by the inability to draw the sliding part back—the arms of the screw are turned gradually, by which the slide is withdrawn and the blades brought slowly and with great force together. After the stone has given way and the instrument

closed, it is to be re-opened and managed in the same way for any large fragments which remain. During the operation the patient is placed on a table, with the hips elevated and the bladder full or nearly so; or it may be filled by injection through the catheter. After the crushing process is completed, the lithotripter is withdrawn, the patient turned face downward, and directed to urinate as rapidly as possible; after which the bladder may be repeatedly injected and the powdered stone washed out. In cutting for the stone, the lateral operation is now generally preferred, and always adopted by some of the most eminent living surgeons.

AMPUTATION.—“Dr. Trall remarks, that the water cure method of treating of injuries, tumors, ulcers, and inflammations, is destined to diminish very greatly the demand for this operation, which, however, is much more simple than is generally supposed, and can be performed by almost any person who combines a good mechanical tact in the use of tools, with a sufficient amount of anatomical knowledge to enable him to compress the main artery. There are two modes of amputating. One of which is called the circular, and the other the flop operation. The latter, however, is applicable to a greater number of places. The usual instruments employed, in addition to the pocket-case, are, tourniquet, large knife, saw, and bone forceps. For the circular operation, a blunt, round-pointed knife is used; and for the flop operation, two sharp-pointed ones for different parts. Of course, the thorough practical surgeon is to be preferred in all cases requiring amputation, but emergencies do sometimes exist in which immediate amputation is the only chance for the patient's life; and to meet this exigency, the following explanations are given: The patient is seated in a chair, or placed on a bed or table; the pad of the tourniquet is fixed on the artery at a convenient distance above the place of operation. In the circular operation upon the arm, one assistant supports the forearm, and another grasps the arm above with both hands, and pulls back the integument as much as possible. The surgeon passes his hand under the arm, bringing the knife completely over it on his own side, with the point downward, and makes the first incision by drawing the blade backward from hilt to point, cutting through the skin and superficial fascia, entirely round the limb. The skin is then loosened from the muscles beneath, by separating the areolar tissue with a scalpel or bistoury; the skin is next retracted further up, and then another incision made as high up as the skin will allow, dividing all the flesh

down to the bone. The muscles are next separated from the bone an inch or two with the point of a knife or scalpel, and a strip of muslin, a yard long and three inches wide, made into a "two-tailed retractor," by slitting it to its middle, applied, the broader end being placed on the under side, the two tails passing up on each side of the naked bone, and crossing them at the top; by this the flesh is pulled upward as far as possible, and held by a circular cut, and then the bone sawed off, the splints, if any, remain, being smoothed off by the bone forceps or nippers. The retractor is then removed, and the brachial artery tied. If the artery is not readily found, the tourniquet is loosened, when a jet of blood discovers it. All other arteries which bleed on loosening the tourniquet, are to be also taken up and tied. When the veins cease bleeding, the stump is to be washed clean and dressed by bringing the edges of the flesh together in an exact horizontal line across the middle of the stump, and there fastened by strips of adhesive plaster, three-fourths of an inch wide and eight or ten inches in length, placing the first over the centre of the seam, and the others laterally at about a quarter of an inch distance. Other straps may be laid obliquely over these, and narrow straps in any direction necessary to secure every part of the wound firmly; and a strap around the whole arm to secure all the others is also advisable. The stump is then covered with lint, retained by a light, easy bandage; and the dressings are to be kept constantly wet with cold water, if there is the least tendency to inflammation. It is not necessary for me to dwell any longer on this subject, as it is fully given in all other works, &c.

LIGATING AND COMPRESSING ARTERIES.—These operations will usually be performed by the experienced surgeon; but it is sometimes necessary to compress an artery, in order to arrest a dangerous flow of blood, or prevent bleeding while removing tumors or other morbid parts. How and where to do these things ought, therefore, to be matters of general information. In ligating arteries, the main points to be observed are, to make an oblique incision over it, and to avoid taking up the nerve, which is frequently enclosed in the same sheath with the artery. And in compressing arteries, a handkerchief or the thumb may be employed, making the pad or pressure to bear directly on the vessel. When the thumb is employed, the beating of the artery will direct the exact point for the pressure to be made, which is to be increased until the pulsation ceases.

PART III.

MIDWIFERY.

CHAPTER I.

HISTORY OF MIDWIFERY.

ANCIENT MIDWIFERY.—All history, sacred and profane, attests that the general practice of Midwifery has been in the hands of females until a very modern date. It is true Hippocrates theories on obstetrics, but we have no evidence of his possessing any experimental knowledge on the subject.

So far as the world has had experience in this matter, the success of female accouchers has been at least as great as that of male accouchers; and the statistics of all ages show that the attendance of woman has been accompanied with fewer accidents and a less number of fatal cases than the practice of man.— Since it has been as fashionable as it is foolish to drug and bleed pregnant females occasionally on the absurd notion that there are a great many “diseases of pregnancy,” the success of our most eminent professional men-midwives compares rather unfavorably with that of many professional female midwives, who lived in happy ignorance of the whole of the modern drug and bleeding art.

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CHAPTER II.

PHYSIOLOGY OF THE FŒTUS.

FŒTAL DEVELOPMENT.—About two weeks after impregnation, the new organization becomes about as large as a pea, and its two envelopes, or membranous coverings, called chorion and amnion, with a gelatinous substance inclosed between them are distinctly visible. A thin membrane is also formed over the whole internal surface of the womb, called the decidua. Soon after a small white thread-like substance appears, which is the commencement of the brain and spinal marrow; before the twentieth day the eyes are visible; and before the first month is completed a cartilaginous or grisly substance indicates the future bones, &c.

In the second month the cartilage begins to harden into bone, the rudiments of the teeth are visible, the general form is developed, and it is about an inch in length. During the third month the heart is developed, and, although without blood, has a slight degree of motion. At the end of three months, the eye-lids are distinct, the lips perfect, the fingers and toes apparent, the heart beats forcibly, and all parts are well defined, the weight being two or three ounces, and the length four or five inches. In the fourth month the muscles become distinct, the brain and spinal marrow firmer, the abdomen covered with integument; a large portion of the bony structure is ossified, the rudiments of the second set of teeth, are seen under the first, and the substance called meconium begins to collect in the bowels.

Near the middle of the fourth month, the uterus rises above the pelvis into the cavity of the abdomen, when the mother becomes remarkably sensible of the motions of the fœtus.

This period has been called quickening, upon the erroneous supposition that the fœtus then first became endowed with life; but it is truly alive from the moment of conception. Sickness at the stomach, tendency to faintness, &c., denote the disturbance occasioned by the sudden change of position.

From four to nine months the general development is more rapid. In the fifth month the situation of the nails can be discerned, the weight is about one pound, and the length about nine inches. In the sixth month the head becomes downy, and the nails marked; the weight increases to one and a half or two pounds, and the length to twelve inches. During the seventh months the hair is perfected, the nails fully formed, the bones are comparatively firm, the meconium collects lower down in the large intestines; weight about three pounds; length about fourteen inches.

Many children are capable of being raised if prematurely born at this period, and even in some cases if born a month or two earlier. During the eighth and ninth months, no new phenomena present, but every part acquires a firmer consistence, and all the functions become more active.

FŒTAL CIRCULATION.—The most remarkable peculiarity of the fœtus, is its circulation. Its system of blood-vessels differs from that found in the breathing animal, and the blood circulates by a different route. The pure blood is brought from the placenta by the umbilical veins; this vein passes through the umbilicus, and enters the liver, where it divides into several branches, two or three of which are distributed to the left lobe of the liver; one branch communicates with the portal vein in the transverse fissure, supplying the right lobe; and a large branch, the ductus venosus, which passing backward, joins the inferior cava. In the inferior cava the pure blood is mixed with that which is returning from the abdominal viscera and lower extremities, and is carried along through the right auricle, guided by the Eustachian valve, and through the foramen ovale, into the left auricle. From the left auricle it passes into the left ventricle, thence into the aorta, and by means of the carotid and subclavian arteries, is distributed to the head and upper extremities. The impure blood is returned from the head and upper extremities by the superior vena cava to the right auricle; from this it is propelled into the right ventricle, and thence into the pulmonary artery. As the lungs are solid and impervious, only a small quantity can pass into them, and hence the greater portion passes through the ductus arteriosus into the commencement of the descending aorta, where it is mingled with that portion of the pure blood which is not sent through the carotid and subclavian arteries. Passing along the aorta, a small quantity of this mixed blood is distributed by the external iliac arteries to the lower extremities; the greater part is conveyed by the internal iliac, hypogastric,

and umbilical arteries to the placenta; the hypogastric arteries proceeding from the internal iliacs, and passing by the side of the fundus of the bladder and upward along the anterior wall of the abdomen, to the umbilicus, where they become the umbilical arteries.

THE PLACENTA OR AFTER BIRTH.—This is a spongy vascular mass, found at the surface of the chorion, and adherent to the uterus, which exists in some form in all mammalia. It possesses little or no sensibility, hence it has little or no nervous structure. It is connected by its outer surface to the interior of the uterus, and to the funis by the branches of the umbilical arteries and veins; the membranes pass off at its edge, and encircle the foetus, forming the bag in which the child and liquor amnii, are contained. The most usual place of its attachment is to the posterior and upper part of the uterus; but it may be adhered to the sides, to the edges of the os uteri, or immediately over it. The external convex surface of the placenta, is divided into lobules by fissures, which run a little way into its substance. The internal surface is covered by the amnion and chorion, and on it are arranged in a radiated direction the branches of the umbilical vessels, which pass to form the funis. There is usually a separate placenta to each child, but this is not invariable; in some cases of twins, the funis umbilicales are found to be attached to a single placenta.

THE UMBILICAL CORD.—The funis, cord, or navel-string, forms the connection between the placenta and child. It is composed of two arteries and a vein, and like the placenta is insensible. The arteries wind spirally around the vein from right to left, forming in their course a number of loops or knots. The pulsation of the cord, which is usually strong and distinct, ceases in ten, fifteen or twenty minutes after birth, and the portion attached to the child shrinks and falls off in five or six days.

THE LIQUOR AMNII.—This term is applied to the fluid which collects in the cavity of the amnion; it is secreted by

the internal surface of this membrane and its quantity varies from a pint to several quarts ; the average is about one or two pounds. It serves as nutriment to the fœtus, to allow it free motion, to diminish the force of blows, shocks, and sudden movements, and also assists in dilating the os uteri during labor, &c.

CHAPTER III.

OBSTETRICAL ANATOMY.

BONES OF THE PELVIS.—The ossa innominata form the pelvis laterally and in front, each of which is divided into the ischium or sitting bone ilium; or hip-bone; and pubis, or share-bone, as heretofore explained; and the sacrum and coccyx behind. The brim of the pelvis is defined by the ilio-pectneal line. All below this line is called the lower or inferior pelvis; while the upper pelvis, which is really the lower part of the abdominal cavity, is immediately above. The brim of the pelvis is of an oval form, except where it is broken by the projecting part, or promontory, of the sacrum posteriorly.

CAVITY OF THE PELVIS.—This is bounded by the sacrum behind the ischium laterally, and the pelvis in front. It is of unequal depth, measuring five or six inches posteriorly, three inches and three-fourths from the brim to the tuber ischii, and from two inches to two and a half anteriorly at the symphysis pubis. The bones of the pelvic cavity are smooth on their inner surface, and present a series of inclined planes, tending at first downward and slightly backward, then downward and forward. The brim or upper margin of the cavity, which is its narrowest part, is called the superior strait, and the lower or outlet, the inferior strait. This outlet is of an oval shape, but irregular; its lateral boundaries are immoveable, but its antero-posterior diameter can be extended on account of the mobility of the coccyx.

DIAMETERS OF THE PELVIS.—The longest diameter of measurement of the superior strait is the transverse, or that

from side to side, which measures about five and half inches on an average, and is called the standard measurement. The next diameter is the oblique; this is measured from the sacroiliac symphysis (or where the os innominata is united to the sacrum) to the back of the acetabulum and in the standard pelvis is five and a quarter inches. The shortest diameter is the antero-posterior, which is measured from the symphysis pubis to the promontory of the sacrum, and in the standard or average pelvis is four and a quarter inches. The diameters of the inferior strait are the reverse to the superior, for the antero-posterior, instead of being the shortest, as in the superior strait, is, in the inferior, the longest, and is equal to the oblique diameter of the superior, which is five and a quarter inches in length: and is measured from the arch of the pubes to the tip of the coccygis; while the transverse diameter of the inferior strait is measured from the tips of the ischium, and is four and a quarter inches, the same as the antero-posterior diameter of the superior strait. The only practical importance of these measurements is in cases of deformities, disease, or mal-presentations. In ordinary cases, nature will accomplish her work just as well without our knowledge of obstetrical anatomy as with it.

DEFORMITIES OF THE PELVIS.—The bones of the pelvis may be distorted in a variety of ways, and to an extent which renders labor tedious and protracted, or entirely, impossible. These cases, however, are extremely rare and it not unfrequently happens that the aggregate of the diameters is not materially affected. The usual causes are rickets in infancy, mollities ossium, or softening of the bony structure, in adults. The brim of the pelvis, or superior strait, is most frequently affected by deformities, so that if the child's head can enter the cavity, the delivery will almost always be accomplished naturally, although the labor may be greatly prolonged. In measuring the diameter of the living pelvis, pass the middle finger up the vagina, curving it upward and backward, till it reach the promontory of the sacrum; then observe what part of the finger or hand is in contact with the symphysis, which may be applied to a rule when withdrawn; this will give you the antero-posterior diameter. Again, by depressing the tip of the finger, so as to rest upon the tip of the coccygis, you may ascertain the antero-posterior diameter of the inferior strait in a similar manner. But sometimes there are contractions on one or both sides of the promontory, or an acute angle may exist at the symphysis pubis: to detect these, we may introduce two or three fingers into the vagina; we can then span round, by

stretching our fingers, and thus easily detect any deformity that may be present; lay your fingers flat against the back of the symphysis pubes. In this way, every necessary information may be obtained respecting the diameters and deformities of the female pelvis.

CHAPTER IV.

PREGNANCY, OR FAMILY WAY.

SIGNS OF PREGNANCY.—The cessation of menstruation at the usual period of its occurrence is among the first indications, though not in itself conclusive of pregnancy. Most women experience some degree of nausea, and sometimes vomiting on rising, called morning sickness; this usually begins in the fifth or sixth week, and continues to the end of the third month.—The breasts or mammary glands become larger than usual, the small papillæ or teat become elongated, and the areola or circle around it becomes of a darker color. The urine is generally more abundant, and more pale and limpid. To distinguish pregnancy from amenorrhœa, or obstructed menstruation, is sometimes difficult. One symptom will distinguish amenorrhœa from pregnancy which is a dizziness of the head; this is never experienced in the signs of pregnancy, but mostly always in amenorrhœa. If the female, after sexual intercourse since her last menstruation, has experienced any sudden excitement, or change of the system, as chills, lassitude, &c., without any known adequate cause, it affords additional evidence that she has conceived.

The only infallible signs of pregnancy are:—The movement of the child, not the woman's fancies, for many women have been deceived on this point. To ascertain the movement of the child, place the woman on her back, with the legs a little flexed; bare the abdomen, and dip the hand in some very cold water, and apply it suddenly over the tumor: and the motions of the child will infallibly, if alive, declare its existence.

DURATION OF PREGNANCY.—The natural duration of pregnancy has usually been reckoned at nine calendar or
(17)

ten lunar months, or two hundred and eighty days. A majority, probably, are born in the fortieth week; and they are not very unfrequent in the thirty-seventh, forty-fourth, and forty-fifth weeks.

PATHOLOGY OF THE FŒTUS.—Nearly all the maladies to which the child is subject may affect the foetus; and when we consider how unhealthfully the majority of females live while in the pregnant state, and how readily the organic instincts, true to the all-pervading law of self-preservation, throw the morbid conditions of the mother upon the new being within, it seems almost wonderful that so great a majority can live, until the time for being born arrives. But the foetus does often die in the uterus, and it is sometimes important to ascertain the fact. The signs are: a cessation of its motions; flaccidity or falling in of the abdomen; recession of the umbilicus; a sensation of coldness, and of a dense weight in the abdomen; the breasts suddenly becoming flaccid; to which may be added a loose feeling of the uterine tumor, failing health, sunken countenance, dark areola round the eyes, foetid breath, frequent chills, &c. Here as usual, we are to “trust to nature.” At an uncertain time the uterus will expel its contents, and the treatment required is the same, in all essential particulars, as for ordinary abortions.

HYGIENIC MANAGEMENT DURING PREGNANCY.—Given by Dr. Trall in his own language. Those females who would escape the usual and dangerous maladies which frequently accompany pregnancy, and avoid in a great degree the ordinary pains of childbirth; and above all those who would be mothers of healthy children—healthy in body and mind, in constitution and in disposition—must observe attentively and obey inviolably a few simple hygienic precepts.

1. All high-seasoned, high-salted and complicated dishes must be abstained from. The whole course of diet must be plain and simple, and coarse enough to keep the bowels always free. Animal food, if used, should not be taken more than once a day.

2. All drugs must be eschewed, especially every thing of the narcotic kind, as opium and its preparations, which have a direct tendency to stupify and enfeeble the future being.

3. Some form of bath must be taken daily; a towel wash or rub-sheet will answer, and it need not be very cold; about

70 degrees will do very well; and if the patient is very sensitive or feeble, it may be taken in a warm room. Pregnant women usually bear cold water remarkably well.

4. The hip-bath should be frequently employed, especially near the period of delivery. For a month or two preceding the expected time it should be employed daily; this may not be so cold as to be particularly disagreeable, and five to ten minutes duration.

5. The patient must keep on her feet a good part of the time during the whole term. She may walk frequently in the open air, or do house-work, or exercise in any easy manner in the erect attitude. Nothing is more likely to induce a wrong position of the child in the womb, or a painful, lingering labor, than pressing and cramping the abdomen by sedentary habits. Females who are compelled to work with the needle, or sitting at a work-table, should be particularly careful at all times to maintain an upright posture. Adhesions of the afterbirth, flooding, tumors and inflammations of the parts are frequently owing to the compression produced by a mis-position of the body.

6. Excessive labor and violent exertions, also strong mental passions, or depressing emotions, are to be avoided as far as possible.

ACCIDENTS OF PREGNANCY.—Medical books give us a formidable catalogue of “diseases of pregnancy;” but I think, “says Dr. Trall,” the phrase is another of those misnomers which are so plentiful in the books, and so well calculated to mislead. Diseases during pregnancy are common enough; but so far from being naturally of that condition, they are merely the evidences of the unnatural habits or circumstances of the individual.

The familiar fact that those diseases which rapidly exhaust the vitality of the body, as consumption, are suspended during pregnancy, to re-appear with all their formidable and fatal array of symptoms soon after the completion of the re-productive function, sufficiently attests the principle that nature is true to her own purposes, and that all diseases during pregnancy are fortuitous.

Abortion, which is the expulsion of foetus before the sixth month, and premature labor, its expulsion between the sixth month and maturity, are the most painful disorders or accidents attending pregnancy. The danger is usually in proportion to the hemorrhage. The common causes are general or local debility, “inward weakness,” violent mental perturbation, and

bodily shocks or injuries. Leucorrhœa is the cause of the greatest number of miscarriages. Excessive sexual indulgence is also a frequent cause.

The symptoms of miscarriage are, an unusual sense of languor, uneasiness and weariness, with aching or pain in the back, followed after a few hours or days by a slight discharge of mucus or blood from the vagina, and bearing-down pains. These are at first felt in the back, extending around the loins to the abdomen and down the thighs, recurring at regular intervals, and increasing in strength and frequency; in most cases the pain is as great as in labors at the full term. In some cases the ovum is expelled with but little pain, and sometimes the fœtus is expelled and the membranous shell of the ovum retained for many days, and perhaps finally passed off in a dissolved state with the lochia. Hemorrhage seldom continues after the expulsion of all parts of the ovum; but until then it is to be apprehended. As a general rule, the flooding is less the nearer gestation approaches maturity.

Our first treatment should be preventive; but if the case has progressed too far, the flooding requires our principal attention. Allopathic authors deal largely in opium, ergot, &c., and the forcible extraction of the ovum with instruments, and even bleeding from the arm. These drugs and destructions are never necessary, but always injurious—in fact, they often injure the constitution much worse than the abortion does.

The patient should recline in an easy, recumbent posture—the wet bandage be applied around the abdomen, and changed several times a day, and two or three vaginal injections of cold water employed daily. When the flooding is excessive, and in cases of internal hemorrhage, denoted by headache, great lassitude, shiverings, frequent and feeble pulse, and the patient becoming pale, exhausted and faint, with a dark shade under the eyes, the tampion may be employed with advantage, or a silk handkerchief, wet in the coldest water, or inclosing a cylindrical piece of ice or snow, may be introduced into the vagina as far as convenient; it may remain for six or eight hours, and then be introduced again if necessary. Enemata, or injections of the coldest water are also valuable auxiliaries in severe cases. In all cases it is important to have the room well ventilated, and the patient placed on a cool and rather hard bed or mattress. The inexperienced attendant should not be unduly alarmed at the faintness which takes place after severe or protracted flooding, for it generally happens that this condition favors the formation of a clot or conglum, which obstructs the bleeding vessels and effectually arrests the hemorrhage. It is not uncommon for patients to remain an hour or two in a state of deliquium animi, or fainting.

Morning sickness, when very troublesome, is best alleviated

by a light, dry evening and morning meal, as Graham crackers, toasted bread, &c.

Toothache may be relieved by eating very sparingly for a day or two, and careful attention to the bowels.

Cramps, for which the old-school practice is bleeding and laudanum, may be quieted by rubbing the lower limbs with a cold wet cloth, followed by dry friction.

Constipation is more apt to occur in the early than the later months of pregnancy. It requires coarse food and water injections.

Piles, which have previously affected the patient, are liable to re-appear and become aggravated. Frequent sitz-baths should be employed with a small, cold injection immediately before each stool.

Pruritus vulva, or itching of the genital organs, may be relieved in the same way; if excessive, warm water is more soothing than cold.

Heartburn, sick headache, sleeplessness, and salivation, are among the unpleasant incidents that are occasionally presented. They are to be treated in the same way as morning sickness. Frequent sips of cold water are very soothing in most of these cases; and when the sick headache is attended with prolonged nausea and retching, warm water should be drunk freely until the stomach feels easy, or vomiting occurs. Vomiting can be very much aided by quills, recommended in a preceding part of this work.

Cravings or longings for improper food should not be gratified. There is mostly more danger of "marking the child," by improper indulgence on the part of the mother, than by proper self-denial. If the mother learns to take of herself takes proper care of her general health, and keeps all unhealthy articles out of her stomach, the trouble from this source will be of little consequence.

Pains in the breasts are sometimes severe. They may always be relieved by cold wet cloths, except when of a spasmodic or neuralgic character, in which cases steaming and warm fomentations are appropriate.

Excessive vomiting sometimes occurs, and may be so severe as to endanger abortion. Fasting and cold water drinking are the special remedies.

Pain in the side—usually the right—often occurs after the middle period of pregnancy; it is rarely severe, but generally constant. Bleeding, leeching, cupping and blistering have

been perseveringly prescribed for it by "old-school" doctors, but without the slightest benefit in the great majority of cases. The wet bandage and hip-bath are the better remedies.

Difficulty of breathing frequently affects the patient more or less toward the completion of the term; in some cases it is attended with severe cough. Indolence or over-exertion are alike to be regarded in the treatment. Great fatigue of body or mind should be avoided. Lifting heavy articles, running up stairs, walking too fast, are among the excesses against which the patient should be cautioned.

When *Hemorrhage* occurs, it is to be regarded as a premonition of abortion, and treated accordingly.

Diarrhœa is among the unusual occurrences. The treatment is hip-baths, the abdominal bandage, cold injections, and a strict dietary.

Difficult Urination sometimes proves very annoying. When it amounts to actual retention, the catheter may have to be employed; this, however, is extremely seldom. Cold hip-baths and bandages are usually sufficient. Foot-baths are also useful; and in severe cases the warm hip-bath, immediately followed by the cold, will often relieve.

Varicose Veins, with a swelling and knotty appearance of the lower extremities, sometimes result from the obstructed circulation occasioned by the pressure of the uterine tumor on the adjacent blood-vessels. Attention to the general health, and a judicious regulation of the amount of exercise—neither too much nor too little, and at regular hours—are all the therapeutic indications in this case.

Hysteria is named among the "diseases of pregnancy" by authors. I have never known it to occur in females whose hygienic habits were reasonably correct; and the affection is probably always attributable to novel reading, exciting company or parties, stimulating drinks, irritating food, cathartic and opiate medicines, &c. The treatment is wholly negative—an avoidance of these causes.

Convulsions are less frequent occurrences than hysterical paroxysms, but are produced by the same general causes, and can be prevented or cured by their avoidance or by removal.

CHAPTER V.

PARTURITION, OR LABOR.

DEFINITION OF LABOR.—By the term labor, we understand the progress and final expulsion of the fœtus and secundines from the uterus, at the full period of gestation, or pregnancy.

When gestation or pregnancy is completed, a new action is set up in the uterus, which is denominated labor, or parturition. Various have been the theories which have prevailed in different ages of the world, respecting the immediate or exciting cause of labor. Some have ascribed it to the re-action of the over-distended uterus; others to the instinctive efforts of the fœtus, &c., &c.

As the ripened fruit drops from its parent stem, so the fœtus, when sufficiently developed for independent existence, is separated from its parental connection. A slight discharge of mucus, often more or less tinged with blood, called labor-show, and which serves to lubricate and prepare the parts for the requisite distention, is the first decisive indication of approaching labor. Wandering pains about the back, around the abdomen, and down the thighs, of a cutting kind, gradually becoming fixed and regular, with intervals of perfect ease, denote the premonitory symptoms. Each true labor "pain" is produced by a distinct, periodical contraction of the longitudinal and circular fibres of the womb, which diminish its diameter and dilate its mouth. These contractions, and consequent pains, are renewed at certain intervals until the dilitation or opening is sufficient to permit the passage of the child without injury to the soft parts. Those patients who live healthfully, suffer but little; while many of opposite habits, endure the most excruciating agonies. In the early stage of labor, the pains are more cutting or grinding; they are of acute and stinging character, and are occasioned by the stretching of the fibres of the os uteri, or mouth of the womb. In the second stage of pains, the con-

traction of the womb is aided by the contraction of the abdominal muscles, when the patient is obliged to co-operate with the expulsive effort, by holding her breath, and the pains are forcing or bearing-down. These forcing or expulsive pains gradually increase in severity, but the patient generally bears them better than the first ones—or as the labor approaches its termination, &c. The membranes are sometimes ruptured, and the water amnion discharged at the commencement, and sometimes not till very near the conclusion of labor; and not unfrequently the water escapes on the first occurrence of the premonitory pains.

FALSE LABOR PAINS.—These may often be mistaken by inexperienced or young doctors, for true labor pains, but they are easily distinguished. If we place our left hand on the abdomen during the pains (the patient lying on her back, with her limbs flexed), and introduce our right hand index, or index and middle fingers into the vagina, and examine the mouth of the womb, we can in true labor pains, feel the contraction of the womb with the left hand, and the dilatation of the mouth of the womb, with the fingers introduced. But, if they are false pains, they have no effect on the uterus or womb. False pains are very apt to come on at night, trouble the patient very much, and pass off during the day. Sometimes the patient will be troubled for weeks by these false pains before labor commences. But, however, in our way of preserving health these pains are not known, as we keep the bowels regular, &c., which is the general cause of these false pains.

Injections and hip-bath, are necessary as remedial agents, but a thorough course of hygienic life ought to be practised. Or a mild physic will answer to regulate the bowels, as our Neutralizing physic, or anti-bilious physic. I prefer the former, given in teaspoonful doses every hour till it operates mildly, &c.

THE PAINS AND SUFFERING OF CHILD-BIRTH.—

An erroneous opinion of professional men, is that great suffering is the appointed law of woman in child-birth; and this error has had, and has yet, a paralyzing effect on the popular mind, and caused the sufferers to submit reverently to their fate, instead of seeking the true light of human physiology on the subject. If Eve was sentenced to bring forth in sorrow, it was because of her personal transgression, or offence. Show me a

woman on earth who agonizes through the period of parturition or labor, and I will prove her to have violated the laws of health in her very own person; and conversely, "says an author," find me a mother who lives physiologically, and I will show you one with whom the act of child-birth has neither agony nor terror. The great truth to be learned by every and all persons is, that gestation or pregnancy and parturition or labor are natural processes. It is as natural for a woman to bring forth children, as for a shrub to bring forth flowers and fruit, &c., and her organs are as naturally adapted for the purpose. In a state of perfect health no natural process is painful. Pain, then is, in all cases, the sign of disease. With a diseased stomach, digestion is painful, &c., &c., so is child-birth painful to a diseased nervous system, but never to an entirely healthy one.

The following is a grand chapter, which is in reality very grateful, and ought to be taken into consideration by every person. "It is not credible that any natural function should be attended with pain in a healthy state of the system. All nature protests against the idea—all experience is opposed to it. Causes and effects are too well adapted to each other—ends and means too admirably fitted. This world is the work of infinite power and benevolence; all the human system is the masterpiece of all this fair creation. It is not to be supposed that the most important of all the functions of the most perfect of created beings, of whom we have any knowledge, should be subject to inevitable pain and peril in its performance. Such a belief is an insult to Providence. When God looked upon His creation, and pronounced it good, He could not have overlooked the most important function of His last and most perfect work; and there can be no question that in the original creation of woman, she was fitted to obey the command, "increase and multiply, and replenish the earth," without peril or pain. The very idea of the curse inflicted upon her carries with it the belief, that she was originally created perfect in this particular.

"What then has made the change? Why is woman subjected to all her pains, sufferings, outrages and perils, in the performance of the great function of her life? It is because the forbidden fruit of enervating luxuries and excesses is continually eaten. And just in proportion as woman transgresses the laws of nature, which are the real and unquestionable commands of God, just so far are they subject to the curse.

"Man has it in his power to incur all direct curses by transgression, or to avoid all curses and invoke all blessings by obedience of the divine law. Industry makes of the barren earth, another Eden. Temperance and cleanliness give health, and health brings happiness in all the duties of life. So is it with woman. Indolence, self-indulgence, voluptuousness, and

all the sins against the laws which God has written in the structure of our bodies, bring with them the curse of deranged nervous systems, broken health, irregularity of function, disease, pain, and premature death. Every woman is an Eve, and forbidden fruits are all around her. If she listen to the voice of the beguiling serpent, hers is the woe. But, on the other hand, faith in God, obedience to his laws, and living in harmony with his works, assure to woman health, and safety and joy, in fulfilling all her destiny. These are truths pregnant with meaning, and incontrovertible as the principles of nature."

NATURAL LABOR.—*Definition.*—By the term natural labor, we mean all those which occur at the full period of gestation, in which the head presents, and which are completed with ordinary facility without requiring any artificial assistance from medicine, the hand, or from instruments.

In the most common, and perhaps the only truly natural labor, the head presents at the superior strait, with the occiput in front or toward the symphysis pubis, and the face turned toward the sacrum. The reversed presentation—the face forward—is rarely attended with any other difficulty than a more tedious delivery. Foot presentations almost always terminate naturally, and the same is true of breech presentations.

DIAGNOSIS OF PRESENTATIONS.—The distinctive signs by which different parts of the body can be recognized at once, ought to be familiar not only to all widwives, but to all females who are liable to be called upon to assist in emergencies. The head may readily be known by its hardness and by the sutures and fontanelles; the breech, by its softness the anus, os coccygis, the scrotum or vulva, and the cleft between the buttocks; the knee by its rounded form, and by the condyles of the femur; the foot by its heel, and nearly equal length of the toes; the elbow by olecranon process, which renders the joint much sharper than the knee; and the hand by its shortness, the unequal length of the fingers, and the division of the thumb.

STAGES OF LABOR.—*The first stage* is usually reckoned that period in which the first obstacle to delivery is overcome,

which consists in the dilatation or opening of the convex uteri, or neck of the womb. The bag of waters is pressed forward of the child's head, and serves as an equable wedge to effect the dilatation in the easiest possible manner; but when the waters have been prematurely discharged, the child's head acts as a wedge, in which case there is considerable more suffering.

The second stage commences with the full dilation of the os uteri, and occupies the whole period during which the head of the child passes through the superior strait into the concavity of the sacrum, and presses on the perineum, dilating it and the external soft parts; thus forming what is termed the perineal tumor.

The third stage of labor commences with the perineal tumor, and occupies the whole period during which the head and body of the child are being expelled and the cord divided.

The fourth stage of labor consists in the expulsion of the placenta and secundines. The duration of material labor varies from a few hours to several days. The average time is about ten hours. The placenta, or after-birth, may be expelled in a few minutes after birth or delivery, or not till several hours. Its expulsion is attended by comparatively slight labor-pains.

POSITION DURING LABOR.—The general practice now made use of, is half a dozen assistants, and these are tearing and pulling the parturient woman about, &c. &c., as is well known by every body. But this is highly wrong. The patient should walk, sit, or stand until she feels inclined by the severity of the pains, or the local disturbance, to rest. She should then recline on a hard bed or mattress. She may assume any position that she finds most comfortable, (not do like Professor K—— did of Cincinnati, Ohio. When I attended lectures there my wife was confined; I, as a matter of course, was a student and inexperienced, and I thought proper to get my Professor K——, who was at that time Professor of women and children in the Eclectic Medical College of Cincinnati, Ohio. When my wife was confined I called on him; he came and examined the case and left, and said he would return at some time in the afternoon, which he did. The following night he ordered my wife to lay on her back and keep quiet till the child would be delivered; and also, ordered a confounded dragging and pulling about, which we did for some twelve or fourteen hours. The old lady of the house where I boarded, had been a midwife in former years, and she came up to our room and

begged the Professor and myself to let my wife get up, but as before said, it was only laughed at the old lady by my Professor, and I thinking he should know best, certainly followed his orders. Well, we continued this murdering process—I might say—for the time above said. At seven o'clock in the morning, my good Professor left, not knowing what really to do with this protracted case, which was in the same stationary position for about ten hours. At all this time my woman was filled with hot slops, as ergot and teas, without the least benefit. As a matter of course, I got impatient on account of the Professor leaving, appearing as if he did not know what to do. So in his absence the old lady came up again and wanted my wife to get up, as my wife was wishing for God's sake to let her get on her knees, but the Professor would not allow it under any circumstances. But, nevertheless, I began to think that my woman was suffering horribly, horribly indeed, without the least progress; at last before the Professor returned, I concluded that we would let her get up as soon as the Professor came, if not sooner. Very soon he came, and I then told him, that I was bound to have my woman get up as I knew it would not injure her, but he was highly opposed; but I ordered her to get in any position she wished to, which was on her knees before a chair, remember the child being in the same position and stage as it was ten hours before. She did so, and not three minutes elapsed till the child's head was born, and soon the whole body, but dead enough. I then thought had I had no Professor, and left it over to nature, my child would have lived and my wife not one-twentieth part punished, as she was. I often since thought that it is not only injurious to murder women in this way, but highly cruel and mischievous. (I shall never as long as I live in this cruel world see a woman suffer from nothing but such mal-practice as this was.) She may have the head high or low; lay on the right or left side or back; or for a change rest on the knees supporting the breast with pillows; or she may change from one position to another, as often as she pleases, and even get up and walk, &c. There is no necessity for her being confined to a fixed position, and constantly attended upon by the man or woman midwife. Nay, such constant attention is of course injurious.

MANAGEMENT DURING LABOR.—At a natural labor there is nothing to be done, and the principal duty of the physician is to keep the attendants from meddling. After an examination per vagina, to ascertain if the presentation is favorable or otherwise, the duty of the midwife and attendants

is resolved into keeping the patient in a comfortable position on the bed, supporting her during the pain by making firm pressure with the hand upon the lower part of the back, whenever she desires it—assisting her to change position, and giving her a swallow of water occasionally, which should be the only food, drink, or medicine allowed.

Supporting the Perineum.—This is recommended by the most eminent authors of the regular practice. And this is not only useless, but highly injurious, &c.

As soon as the child is born it will cry lustily, if healthy and vigorous, soon after which the umbilical cord may be tied and cut; but if the child does not cry, or appears apoplectic or feeble, the cord should not be cut until the pulsation in it ceases. Some authors have recommended slapping the child on the back to excite circulation and respiration; but a more merciful and more efficacious practice is to dash a little cold water on its chest, abdomen and spine. The cord may be tied about an inch from the navel, and again an inch further off, and then cut through near the first ligature with a pair of scissors.

THE PLACENTA OR AFTER-BIRTH.—The contractions of the uterus, which expel the child, also detach the placenta; and in most cases it lies loose in the vagina after delivery of the child. Sometimes, however, it is not entirely detached, or is still attached to some portions of the uterus by morbid adhesions. If no expulsive efforts are made in an hour or two—evinced by a recurrence of bearing-down pains—the cord may be gently pulled upon—never forcibly; and if the after-birth does not follow very readily, gentle bearing down, with the traction on the cord, though not so much as will break it. Should the placenta be retained several hours without expulsive pains, friction may be caused by first dipping the hand into cold water and then continually rubbing the abdomen to excite uterine contraction. The sudden application of a cold wet cloth to the abdomen is often effectual. After the removal of the placenta, a free vaginal injection of cold water is always harmless, and generally remarkably soothing and strengthening.

AFTER MANAGEMENT.—Bandaging both the mother and child's abdomen, is practiced by our regulars, but this

bandaging is of no particular use, and on the child it is highly injurious. Its tender, flexible muscles cannot have too much freedom. In the mother they want to prevent a "pendulous belly." But this cannot be prevented by the bandaging, but by bathing daily. The wet and soiled clothing should be removed from the bed as soon as convenient, and the patient supplied with clean linen, &c.; after which she should be allowed to rest as long as she feels so inclined. Then a tepid hip-bath ought to be given once daily, and also bathing the whole surface, followed by brisk friction, "the hip-bath ought to be reduced in temperature as the patient wishes it, till cold."

Lying-in women should keep their beds till they have recovered from faint or exhausted feelings, and then get up on a chair and walk about as much as can easily be borne, but not exert herself in any way. The rule for her to be governed by is, to sit and walk as soon or as much as she wishes without inducing pain, distress, lameness, or bear-down sensations—but not to transcend or exceed those limits—with no regard whatever to time. The general practice at present is to keep a woman in bed for about two or three weeks, without cleaning her, or letting her get up, but this is an erroneous practice, as it must bring on disease in the majority of cases. Let us try and follow the laws of nature, or instinct in some of these matters. And not keep women down in filthiness, and thus putrefaction.

CONVALESCENCE OF LYING-IN WOMEN.—There is no place "remarks Dr. Trall" where more mischievous meddling with the harmonious operations of nature is found than in the chamber of lying-in women; nor is any place more abounding in mal-practice on the part of the physician; nor more infested with the conceits, whims, miseducation, prejudices, and superstitions of nurses. When the usual stimulating and slopping of the mother, and the stuffing and dosing of the child is taken into the account, we have no occasion to wonder that so many mothers have a "bad getting up," nor that so many children decline and die. The mother is gorged with catnip teas, ponada, wine-whey, soups, broths, and medicated slops innumerable to promote the lochial discharge, or increase the secretion of milk; and the child is made to swallow castor-oil, sweetened urine, and other nauseous and disgusting trash, to "clear out the meconium," and afterward fed on magnesia, prepared chalk, and dosed with aromatic seeds and pungent essences to "keep out the wind," and paregoric or laudanum, or opiate cordials, to quiet the pain and irritation which the

doctoring has produced. These doings, which are almost universal in civilized society, indicate a stupid ignorance or gross perversion of the simple and efficient operations of nature, destroy thousands upon thousands of infants in their cradles, and lay the foundation for debility, imperfect development, and innumerable diseases in those who are so fortunate or unfortunate as to survive them. The food should be essentially of the same nature as usual, having reference, of course to the state of the system, amount of exercise, &c. Bread and milk, or gruel with toasted bread, cracked wheat, boiled rice, brown bread and mush, &c., with a moderate supply of fruits and vegetables, are sufficiently watery for all needful purposes if the milk be deficient, while dry paste, crackers, brown bread, potatoes, &c., are largely corrective when the breasts are overburdened with this secretion. Lying-in women are mostly always fed on water slops, but I should think it preferable to take the water alone, and the solids also, than to pamper them, with such erroneous dietary.

ACCIDENTS DURING THE LYING-IN PERIOD.—The majority of accidents and diseases following ordinary labors, are artificially produced, the result of meddling doctoring or bad nursing. It is a very common practice to stimulate, narcotize, leech, bleed, &c., if the patient seems exhausted and chilly after parturition. Opium is a good remedy, if she is restless, and if feverish symptoms are present. Thus the patient is put into a drowsy and lethargic state, and fever must supervene, for under a narcotized state of the system no patient can recover; and thus the patient must die of puerperal or child-bed-fever, &c. Lancing, leeching, blistering, cupping and scarifying are all of no use, but are highly injurious. Also calomel or mercury, blue pill, opium, &c., these all have no business in the lying-in-chamber; and if they were always where they should be, no woman would be killed by them.

But, nature should herself restore—
 Like the red and rosy cheek;
 But, with nature interfere,
 Never do, or else you'll rue.

Whenever, then, there is serious doubt as to what ought to be done to the patient, do nothing—ten chances to one that while doubts are being solved, nature will clear the difficulty. Flooding sometimes, but rarely, occurs after delivery. It is to be treated as given under abortion, (see page 312) with cold hip-bath, wet cold cloths to the belly, and even the vagina plucked up with pieces of ice enclosed in linen, wet with cold water, and introduced, &c.

LOCHIAL DISCHARGE, OR FLOWING—Sometimes ceases suddenly, or is suppressed by taking cold or by inflammatory excitement, followed by distress or swelling in the abdomen or pain in the head, sense of numbness, coldness, &c. The warm hip and hot foot-baths and fomentations are to be employed until the action is re-established.

PUERPERAL FEVER, OR PERITONITIS.—This is a most frequent and fatal disease under old school practice; but I have never heard of it in our hydropathic treatment, nor I think I shall not if properly treated on hydropathic principles. Medical authors distinguish several varieties; but this is not necessary in practice; and they are merely accidental modifications, or different degrees of severity of the same disease, which consists in an inflammation of the peritoneal membrane, sometimes, however, complicated with inflammation of the bowels or uterus, and attended always with a violent but low prostrating fever. Among the more prominent symptoms are swelled, hard and painful abdomen, and obstinately constipated bowels. The treatment is the same as for ordinary inflammation of the bowels; cold wet cloths to the abdomen, hip-bath and hot foot-bath, cold cloths to the head, and tepid injections. Also the wet sheet-pack warm, with cold cloths to the abdomen and hot bottles to the feet, or the alcoholic-vapor-bath may be used, &c.; these must be followed by the alkaline rub-sheet or hand-wash.

INFLAMMATION OF THE BREAST.—This is like the preceding disease, not much known of in our water treatment, but in general practice it is a frequent occurrence. Treatment was given in a preceding part of this work, “under the head of surgery.” Steaming and fomenting the breasts, and this followed by cold cloths and dry compress, or well covered with dry flannels, and this very often renewed, are the local treatment. If the breast be very full of milk, it must be drawn off with the breast-pump or human mouth. When the nipple is malformed or deficient, the breast-pump will very often succeed in drawing it out. It is no uncommon circumstance for a young mother, especially with her first child, to suffer horribly for three or six months, or even a year, with this loathsome complaint. And yet it can never occur if the

system is kept free from obstruction by proper diet and bathing, and is not regularly drugged half to death, which is too often the case in our days.

SORE NIPPLES.—These require a simple course of treatment—merely drying off the nipple after every sucking of the child, and washed with a little borax water, or a little borax and tincture, or infusion of golden-seal and washed, and then sprinkled with a little slippery-elm flour, or common wheat flour, covered after every dressing with a little Straminium or Jamestown ointment, or common lard. This must be repeated after every suckling of the child.

MILK FEVER.—This is always owing to a negligence of hygienic and water course management; also over-heated or unventilated rooms, heating food, drinks or medicines, &c., are general causes. This usually appears about the third day after delivery, and is attended with general feverish symptoms, great pain, and throbbing in the head, and unless speedily relieved, a suppression of the secretion of milk. The wet sheet-pack may be used if the patient can get up, or the alcoholic-vapor-bath may be given in bed previously to giving the alcoholic-vapor-bath. The patient ought to be sponged or surface bathed with the alkaline bath, &c. A general course must be pursued as in fever.

PUERPERAL SWELLED LEG, OR PHLEGMASIA DOLENS.—This is another frequent occurrence in ordinary practice, but unknown in the water cure system. This is treated on the same principle as local inflammations. Hip or half-baths, and local wet cloths, and bathing the whole surface daily attended to. Either with injections, or the anti-dyspeptic pills, &c., they may be regulated.

CHAPTER VI.

INFANT NURSING.

DRESS OF INFANTS.—This is of course the first provision to make for the new-born infant—suitable clothing. All the usual bandaging and swathing is to be rejected, with every other article of apparel that in the least constrains its motions. After a washing in tepid water, a soft rag should be tied around the remnant of the cord, and the child dressed with the diaper, a loose shirt, a soft flannel petticoat, and an easy frock. On no account should any thing be pinned or tied around the abdomen, or any part of the body, like a belt or bandage, unless for some surgical purpose. TRALL.

BATHING INFANTS.—Every child should daily be washed over the whole surface immediately after awakening from sleep, and never on a full stomach—the water at first being tepid and reduced in temperature till cold.

FOOD OF INFANTS.—The mother's food, it is known, is the appropriate food during the first few months; but, however, in cases where the milk of the mother is not sufficient, a little sweetened milk and water is the best substitute. Solid food as a general rule is too much given to children at first, even as early as the third or fourth month. On the first appearance of the teeth, about the seventh month, it seems to indicate as the natural period for commencing the employment of solid food. It is a great mistake to suppose that all the food taken into the tender and delicate stomach of the infant should be fine, concentrated, divested of all innutritious matter, and very nutritious. It is, on the contrary, even more important for children than for adults, that the food should be unconcentrated and unobstructing, as well as simple and uncomplicated.

Farina, corn starch, fine flour, and refined sugar are the fashionable materials for the infant dietary; but a worse selection could hardly be made. Graham flour, mush, cracked wheat, coarse Indian meal, hominy, boiled rice, brown bread soaked in milk, boiled potatoes, stewed squash or pumpkin, roasted, baked, stewed, or boiled apples, &c., are the proper solid food for infants from the first moment that they are able to take any kind. This plan of dicting will secure the child against dysentery, cholera infantum, colics, gripes, spasms, convulsions, scrofulous swellings, skin diseases, painful teething, &c., &c. Improper diet has a vast deal to do with making children cross, fretful, and ugly tempered, as well as dull, sickly and stupid. The most healthy children may be stuffed so outrageously as to suffer continually from cramps, colics, and all sorts of restlessness and pains.

The practice of learning or forcing children to swallow fleshmeat, before they can properly masticate it, is deserving the severest open blame. Scarcely anything, in my humble judgment, "says an Author," has a more injurious effect upon its body or mind than this miserably foolish fashion. Many mothers, perhaps the majority, stuff fat, grease, and flesh, into their mouths before they are even weaned. Such children are always full of foul humors, or liable to severe inflammatory or febrile diseases every time they take a little cold, all of which may be avoided by feeding the child on such plain simple vegetable food as it always relishes, and will always be satisfied with, until its parents in their deep, dark and pitiable ignorance, pervert, or turn from the right, and deprave its natural appetite.

After being weaned, the usual time of which is at the end of nine or ten months, the child should be trained to regularity in the habit of eating; never allowed to eat between meals, nor after going to bed at night, until the next morning's breakfast-time. The practice of feeding children simply to amuse them or keep them quiet, is also deserving severe reprobation; yet it is one of the fashions of these days. Those who travel much on our railroads or steamboats, will if they are of observing habits, notice that a large proportion of all the children abroad, from one year old upward, have their hands full of candies, sweet cakes, or some other eatable, and if their observing habits are close, they will also notice that those same children are crying, kicking, and yelling with tooth-ache, head-ache, stomach-ache, and belly-ache, the greatest part of the time. If the mothers of those children understood the connection between these causes and effects, they certainly never would be the instruments of inflicting so much misery on their little ones.

DRINK OF INFANTS.—Children who are fed properly

know very little of thirst, unless it is derived from bad dietetic habits of the mother. Still if thirst exist, pure soft water should be given at liberty. Children are more injuriously affected than adults by impure or hard water. Salted or greasy food provokes excessive thirst in young children. Slopings with warm drinks, cause in children debility and diseases of the kidneys and urinary organs. It would be well to give infants daily three or four teaspoonfuls of pure soft cold water, independent of its desire to drink, as it allays irritability and lessens inflammation and tenderness during dentition, or teething.

SLEEP OF INFANTS.—Infants are naturally disposed to sleep a large proportion of the time. It is necessary, however, to the health and perfect development of the young child that it does not sleep with a sickly or aged person, and it is preferable to have it sleep alone, in all cases, after weaning. The thorough ventilation of a child's sleeping apartment is even more important than that of the adult. Children do not often take cold from excessive air while asleep, but very frequently in consequence of sleeping in a hot or close room.

EXERCISE OF CHILDREN.—Young children, if healthy, are always in motion, except when asleep, and it is wrong to try and keep them still and out of mischief. The true philosophy of babyism, is to keep mischief out of their way and then let them run. They must exercise in constant play, or be sick. A lazy or a quiet child is a sick one.

EXCRETIONS OF INFANTS.—Nothing can exceed the folly of the common practice of dosing a young child on every occasion of a little irregularity of the stomach and bowels. In most instances these disturbances are salutary efforts of nature to get rid of surplus, crude, or irritating matters. The conical shape of the infant's stomach enables it to vomit with great easiness, and in most cases the vomiting is the result of over-feeding, or offending material. In either case it will take care of itself, and nothing put into it but proper food and drink in proper quantities.

When the teeth are pressing through the gum, the bowels are always naturally inclined to laxness; and if the irritation from teething is considerable, the looseness will amount to diarrhœa. Here again, if we are not too blind, we may see the kind provision of nature to remedy what seems to us to be unhealthiness. If the child is properly fed, no trouble need be apprehended, or laid hold on, from this source—the bowels will take care of themselves. In extreme cases of irregularity, either of diarrhœa or constipation, no other medication is necessary than cool injections, with the wet abdominal bandage in the former case, and tepid injections, and a greater portion of fruit, in the latter case. The ideas of curing diarrhœa in young persons by astringent medicines and constipating food, and constipation by purgatives, are both exceedingly mischievous in practice. Both complaints arise from irritation or debility, and healthful action is the proximate remedy for both.

TEETHING.—The lax state of the bowels lessens, to a considerable extent, the inflammatory state of the gums during the protrusion of the teeth. Irritation can be allayed by occasionally putting a teaspoonful of cold water into the mouth. When the teeth are about coming through, rubbing the swelled gum with the finger is extremely soothing; when there is great heat and tenderness, a piece of ice may be inclosed in a rag and rubbed on the gums, will allay pain. Children often manifest, for a few hours, a high constitutional fever, the result of the local irritation. Beware of meddling with this fever in the way of drug-medicines, as an inflammation of the bowels may be the consequence. TRALL.

DRUGGING INFANTS—Is another horrid practice which is in our days very much the case. The poor helpless creature is often forced to take some of the most injurious drug-poisons. There is very little use in speaking about this matter, as it is a well established fact, that a majority of children are drugged half to death before they arrive at the age of ten years, or half that age. But, I suppose if parents read this work through, they will be convinced that it is a wrong, and then they will strive to reform, our general principles of living. It is not only injurious to the human health, but highly sinful, as every man knows that we are not to violate the Lord's com-

mandments, nor the laws of nature, or else we are already d—d, and remain so if we do not reform. Now let me ask every reader, with me, whether we do not wrong our God and ourselves too often. If not I'll give up, and say let man steal, rob, murder, and do anything which the human family is tempted to do.

INFANTILE DISEASES.—Dr. Trall, “remarks” again, which are facts, that a multitude of small books have been written on diseases of small children, in most of which the matter is treated as though it was as natural for babies to be sick as it was to breathe. Gum rashes, gripings, spasms, fits, running at the ears, thrush, aptha or canker, inflamed gums, &c., &c., are usually regarded by this class of writers as things to be expected, and provided for by keeping a due assortment of medicines on hand.

I agree altogether with Dr. Trall in these cases, as he again says, if the mother who chooses to raise her children according to the principles pleaded in this work, will have little to do with “infantile diseases.” And if she chooses to throw the responsibility of the health and well-being of her offspring upon the doctor, I can only “say like Dr. Hall,” I pity them, and pray for her enlightenment.

CHAPTER VII.

COMPLICATED LABORS.

TEDIOUS OR PROTRACTED LABORS.—These result from a variety of causes, the principal of which are debility of the muscular fibres of the womb; obliquity of the womb; premature escape of the waters or liquor amnii; rigidity of the os uteri; &c. In nearly all these cases nature may be competent to accomplish her work without our interference; and therefore we ought to always exercise patience, and encourage the patient to do the same. But in some cases manual and medical assistance may be necessary. If at any time the membranes protrude externally during severe pains, they may be ruptured with the finger, and the waters discharged, after which the labor will be hastily finished. Females that had suffered much from leucorrhœa or whites and prolapsus, are liable to thickening of the mouth of the womb, rendering it undilatable, or rather causing its dilatation unusually slow and painful. An occasional warm hip-bath and vaginal injection will as a general rule help the patient a good deal. But to prevent this, she must take a thorough course of water-treatment, and make use of hygienic habits.

PRETERNATURAL PRESENTATIONS.—The average of preteranatural presentations is about one out of sixty cases. And in the greater majority they are breech and footlings, which are not so tedious to deliver, as nature in footling and breech will always do her work herself, if not imprudently interfered with. The mechanical or medical aid is mostly always only needed, in presentations of the upper extremities, or arm presentations, &c. The only general remedy

in all these cases is turning, except in cases of badly deformed pelvis, or enlargement, or some other deformity of the child, when evisceration, or taking in pieces, may have to be resorted to, or, as a preventative measure, premature delivery produced.

OPERATIONS IN MIDWIFERY.—The operations in complicated cases of midwifery which are considered as regular are turning, the induction of premature labor, the lever, the forceps, craniotomy, and hysterotomy.

TURNING, OR VERSION.—To perform this operation, the woman may be placed either on the edge of the bed, with a person behind to sustain her, and her feet placed on two stools, with an assistant on each side to keep her limbs apart; or she may be placed on the back, across the bed, with her hips on its edge, and her feet on two high stools, so as to flex her limbs well, and thus relax the abdominal muscles. Then whatever part that presents must be bringing forward the feet, and thus having a foot presentation. This ought only to be resorted to in cases of convulsions, flooding, prolapsed cord, and must always be in superior extremities or trunk presentations, also in presentation of the placenta, or after-birth, which are attended with flooding. In performing this operation, the hand is introduced very gradually during the intervals of the pains, the fingers being kept in a conical form, following the curve of the pelvic passage, until the fingers and hand are gently insinuated through the os uteri, and through the membranes, if they have not yet been ruptured. Previous to the introduction of the hand, it ought to be well warmed and anointed with sweet oil, or common lard. If the shoulder present, it can then be pushed upward, and the head brought down to the oblique diameter of the brim of the pelvis, and the labor thus left to the efforts of nature. The hand is to be kept perfectly still during a pain; but in the interval we should feel for the abdomen of the child; and flexed upon it, we shall usually find the lower extremities. Seize hold of one or both of them, and bring them down; we must take care, however, that we do not bring down a hand and a foot, or the presentation will not be improved. Always keep cool, and do not hurry. Having obtained a firm hold of the limb or limbs, we must commence the withdrawal of our arm very gently during a pain. The limb or limbs, should be well

brought down into the vagina. Some recommend to tie a narrow bandage round the limb, on which extension can be made to prevent its return; but this is generally unnecessary. Now gently lay the woman in bed, and leave the case to nature till the umbilicus is born; then treat it in all respects as a breech, or a footling case. If it is an arm presentation, the hand is to be passed along the arm until it reaches the body, then passed over the front of the chest and abdomen to the feet.—And, then proceed as before said. If the patient is in a state of extreme exhaustion, it is proper to exert a moderate extracting force upon the feet during the pains.

The proper time for commencing the process is as soon after a sufficient dilatation of the os uteri as possible. Previous to this, the bladder and rectum should always be emptied. This operation may cause some suffering to the mother, but this as a matter of course cannot be helped, in such circumstances.

PREMATURE LABOR, OR A SUBSTITUTE FOR EMBRYOTOMY.—When there exists such a degree of deformity, as to render labor impossible at the full period, the operation of premature labor may be the safer way of delivery. The smaller size of the foetal head at seven or eight months—the less complete ossification then, than at the full period of gestation, the greater separation of the sutures and fontanelles, and therefore its easier compressibility, will in some instances allow it to pass: and the parent may thus have a living child which must be sacrificed if it continue the full time in utero.

To accomplish this, you may puncture the membranes, or produce mechanical dilatation of the uteri. Uterine action or contraction usually comes on in two, or three, or four days, and the patient requires the same management as in common labors. The puncturing of the membranes is the best method of causing premature labor, and may be done in the following manner: The patient lying on her left side the first two fingers of the left hand being passed so as to touch the os uteri, one then should be slowly and cautiously insinuated without violence or hurry, until the membranes distended with liquor amnii can be felt; keeping the finger in contact with the membranes, the instrument (with an obtuse point rather than sharp) should then be held in the right hand and passed upon the fingers of the left; and when its point reaches the ovum, a puncture should be made, by giving the instrument a rotary motion, by rubbing it between the finger and thumb of the right hand; at this time its point must be kept steadily in the same place, and only touch the membranes. When the opening is made, the

discharge of water will show that the object is overcome, and the instrument should be carefully withdrawn. During the interval, the patient should avoid exertion and continue as much as possible in the recumbent position.

FORCEPS.—These are undoubtedly a valuable contrivance for certain morbid conditions and abnormalities. Its object is to grasp and compress the head of the child, and it can be then used as a lever or extractor. According to my judgment these instruments should be very seldom, if at all used. But as before remarked in cases of morbid conditions and unnatural presentation they may be used, but it is not necessary to use them in one case out of a hundred, as a general rule. But it is very fashionable among our regulars to use them in natural labors, only for to haste the delivery, but this is an erroneous, and horrible practice, as it is one of the greatest causes of prolapsus, and all other uterine derangements, but a matter of course, our people are not aware of it being injurious to the mother, but let me tell you it is one of the greatest humbugs in existence.

CRANIOTOMY.—This consists in opening the head of the child, and evacuate the contents of the cranium or skull, this is employed when there is too great disproportion between the size of the foetal head and the pelvis to permit the passage of the former, as in deformed pelvis, or dropsy of the head; also when the child has been dead for sometime without the labor progressing, &c.

A great variety of instruments have been invented for this operation. The perforator is commonly used to open the cranium, and the cranial hook to extract the foetus.

EMBRYOTOMY.—This is a modification of craniotomy; this consists in dissecting the trunk and limbs, and bringing the foetus away in fragments, in cases of cress presentations of the trunk or superior extremities in which the body is immovably fixed in the cavity of the pelvis, and in cases of deformities, or monstrosities of the foetus.

FACE PRESENTATIONS.—The face may present in either of two positions, as the forehead toward the right or left acetabulum. The presenting part is known by the general inequalities of the surface, or by the recognition of distinctive parts, as the eyes, nose, mouth or chin. The bridge of the nose is here the best guide, presenting, as it does, a firm and sharp prominence. Patience is here the best doctor. And it does not necessarily require assistance. But the labor is more prolonged and tedious, and the child's head is often bruised and tumefied, but seldom dangerously so, &c.

BREECH PRESENTATION.—In these cases, as the child enters the cavity of the pelvis, its back is turned either anteriorly or posteriorly toward the symphysis pubis or sacrum. They may be distinguished from the shoulder presentations by the moveable coccyx. The labor must be left over to nature as it is always more successful, than when interfered with.

FOOT AND KNEE PRESENTATIONS.—This knee presentation may be mistaken for arm presentations, but it may be distinguished by its two prominences, with a depression between them. To be managed on the let alone scale, is preferable in most all cases.

PRESENTATION OF THE UPPER EXTREMITIES.—The shoulder at first presents, and afterward the arm prolapses; the back of the child may be turned toward the abdomen or spine of the mother, the former being the most common occurrence. The diagnosis are difficult or impossible in the early stages. After the labor has progressed somewhat, the axilla may be found, with the round prominence of the shoulder, &c. Turning must here be resorted to, and the best time to commence the operation is, as soon as the os uteri is as fully dilated as possible. Nor there is no danger in waiting so long as the liquor amnii has not escaped; nor is there much difficulty in turning in this case; but the difficulty is greatly increased afterward by the firm and more constant contractions of the uterus. If the contractions are intense, turning will be impossible, and the attempt then would endanger the rupture of the uterus. In this case the whole abdomen or whole body steamed, with bitter herbs, and fomented, or warm wet cloths to relax the muscular system and lessen the contractions; and the

patient should drink warm water to the extent of nausea and even vomiting, after which the operation may be undertaken. Should all these measures fail, and turning prove impracticable, the only remedy is evisceration of the thorax.

COMPOUND PRESENTATIONS.—In some rare cases, the hand or arm presents with the head, rendering the labor more difficult, but not necessarily dangerous. If discovered early, the arm may be replaced above the head; but great care must be taken not to draw down the arm, as this procedure would convert the case into an arm presentation. The feet and hands may present together, or one of each, attended usually with prolapsus of the cord. As the labor progresses, one or the other extremity will descend, converting it into a footling or an arm presentation. By drawing down the feet, the most favorable position is secured; and this, if done gently and skilfully, can always be done safely. The attendant should be especially careful not to mistake a hand for a foot, nor in any way manœuvre so as to favor the descent of the hand or arm.

PLURAL BIRTHS.—The labor must be managed like single parturition. After the birth of the first child there is an interval of rest, varying from a few minutes to several hours, &c. If the placenta of the first child is not easily removed, it should be kept until the delivery of the second one; and the same rule applies to triplet and quadruplet cases.

MONSTERS.—If these are too large to be delivered, embryotomy must be resorted to without hesitation, &c.

PROLAPSED CORD.—The umbilical cord may protrude alone, or with the presenting part, either at commencement or during labor. The accident has no influence on the labor, but endangers the child by obstructing the circulation of the cord. The let alone, or to nature, is the best practice, &c.

RETAINED PLACENTA.—Midwives differ as to the time; the retained placenta should be left to the efforts of nature before proceeding to extract it by force. Some are for waiting an hour, others much longer, and others oppose its forcible extraction at any time except when hemorrhage attends. A matter of course it will certainly slough off and be expelled sooner or later; but practitioners have generally apprehended dangerous inflammation. Under the regular practice, there is great danger in this respect; but with a more natural knowledge, and more efficient appliances to keep down inflammation, the hydropath can without trouble or hesitation have better resources and more faith in nature. The irregular contraction, or “hour-glass contraction of the uterus,” by which the placenta or after-birth is retained, frequently follows the use of instruments and ergot, &c. I have left retained after-birth to nature, and they were expelled three or four days after delivery.

HEMORRHAGE.—Flooding has been considered in some preceding part of this work, and is altogether unnecessary to state again. “For this see abortion.”

CONVULSIONS.—A general course of treatment must here be pursued as for the common fit or fits at other times, &c. Warm hip and foot-baths, cold applications to the head, &c.

PUERPERAL MANIA.—This may be the case in very irritable and nervous females. This is always symptomatic, and the attention must only require to the primary difficulty.

LACERATIONS.—Rupture of the womb and vagina, and laceration of the perineum are rare occurrences, excepting in diseases of the parts, or improper interference with natural labors and the use of instruments.

INVERSION.—An inversion of the womb may result from a forced or too quick delivery, pulling away the after-birth by

force, when it is adherent to the fundus, &c. There is generally considerable hemorrhage, and the patient always becomes suddenly very pale, faint, and sick at the stomach; the voice is weak, the pulse rapid and fluttering, &c. In all cases, whether partial or complete inversion, its reduction must be at once, by pressing the protruded portion gently but firmly up through the vaginal passage. Its complete replacement will be known by its springing suddenly from the hand.

PART IV.

CHAPTER I.

DIETETICS.

The diet should be of easy digestion, and very nutritious. Also meals should be taken at regular hours, and regular qualities and quantities, nor should any man eat between meals, &c.

Stimulating diet long continued, "as animal food with aromatic stimulus," will wear out any system. I object using this kind of diet as a general rule, for may we not just as well make use of vegetable diet, which is less stimulating, and more nourishing. It is horrible to think, how people live at present, principally subsisting on animal stimulus. How can they live, or how can they enjoy good health, because they violate the laws of nature by eating these deleterious agents.

PREPARATIONS OF VEGETABLE FOOD.—If diet is only healthy, it matters not how nice and palatable it is. For health is worth more than nice and palatable food.

BREAD.—The best bread is that made of coarse-ground, unbolted wheat meal, mixed with pure water, and baked in any convenient way. This is called the brown bread, and is well calculated for to regulate the bowels, much more so than the common white wheaten bread. The latter is too well known to need any description, but it ought always to be baked well.

WHEAT-GRITS.—This is a very good nourishing and wholesome diet; take wheat well cleaved, then get it ground

coarse, or crack it with a coarse coffee mill. Then boil it in milk or water, and add a little salt, some like white sugar better than salt. The best mode of boiling them is by means of a tin or iron vessel surrounded by hot water.

BROWN MUSH.—The unbolted wheat-meal, taken and boiled in water, like common corn mush; this may be eaten with milk, like corn mush generally is, or a little of good pure sugar or molasses may be eaten with it to make it more palatable.

BROWN MUSH FRIED.—This mush must be fried with as little butter as possible, or clean tallow would answer just as well, and a small quantity of good white sugar or molasses may be eaten with it, to make it more palatable.

RYE BREAD.—This is a very good, healthy bread, but it ought to be mixed with wheat meal, say one part of rye to two of wheat meal, and baked like common white bread.

CORN BREAD.—Take a pint of milk and stir it in enough corn-meal to form a thick batter. Then add a teaspoonful of the following compound: Take Cream of Tartar, two parts; Super-carbonate of Soda, one part; mix. “This is called yeast, and is preferable to saleratus.” Then put in a pan and bake it. It ought to be eaten when cold or almost so. Butter will make it palatable, but this ought to be in small quantities.

CORN MUSH.—This may be prepared in the same way as the brown mush, &c.

BOILED AND ROASTED GRAINS AND SEEDS.—Good clean wheat, boiled in pure soft water, and eaten with a little

sugar, cream or milk, is an excellent dish as part of a dietetic course. It requires boiling nearly all day to become entirely soft, hence the cracked wheat is much more convenient.

RYE, BARLEY AND CORN.—These are equally wholesome, prepared in the same way, but not as pleasant. It is difficult to remove the skins of corn, even by a long process of boiling, without the use of ashes, or some other alkali.

RICE.—This is a good food when well boiled, and is best to boil the rice in the water till soft, then stirring in a little milk, and simmering them together about fifteen minutes.

BEANS, AND PEAS.—These boiled are perfectly wholesome at all stages of their growth. Beans are liable to cause more or less flatulence, except in stomachs long accustomed to a very plain vegetable diet. These must not be boiled with salt; but the salt must be added before you eat them. As when boiled with salt, it will harden the outer skin.

CORN GREEN.—Boiled is usually put down as bad food by medical and dietetical writers. I do not think, nor can any man condemn it to be so, if the person leads a course of diet. It ought to be young, and well cooked, so that it is tender and milky. The butter and salt generally used in eating this corn, I think has the bad effect, and not the corn when rightly boiled.

SUCCOTASH.—This is a mixed dish of boiled green corn and boiled stringed beans, this is a delicious and wholesome food when seasoned with a little milk or sweet cream, with but very little if any salt.

HOMINY.—This is one of the best mushes. The fine-grained hominy is usually boiled about an hour. The coarse hominy requires boiling five or six hours. It should be washed several times, and the water poured through a sieve, to separate the hulls. Two quarts of water to one of hominy are necessary.

FARINA.—This is occasionally made into mush, but I consider it too concentrated to be employed in this way as a leading article of food, or as a principal part of a single meal. T.

PUDDINGS.—The best kind of plain pudding is not objectionable in themselves as a part of some of the meals, as they are liable to be swallowed hot, unchewed, and at the end of full meals of other things. The very best puddings are made of cracked wheat, rye-meal, hominy, rice, stale brown bread, farina, and Indian meal. Potato and apple puddings are very good, &c.

CRACKED-WHEAT.—This pudding is made by boiling the grits perfectly soft in water, adding a due quantity of clean brown sugar; or good New Orleans molasses, and milk, and baking in a moderate heat.

Rye-meal, hominy, rice, and indian meal puddings may be prepared in precisely the same manner. Hominy and Indian meal require a hotter oven than the other articles.

BREAD PUDDING.—This may be made by soaking pieces of stale but sweet bread in milk until soft, then sweetening and baking it. A very good method is to cut in a loaf of bread, add as much new milk as it will soak up through the opening, tie it up in cloth, and boil it an hour.

POTATO-PUDDING.—This may be made of common potatoes. Mix into a stiff paste two parts of boiled and mashed potatoes, and one part of wheat-meal; tie it in a wet cloth dusted with flour, and boil it two hours.

APPLE-PUDDING.—This is made in various ways. One good method is to alternate a layer of prepared apples of wheat-meal dough, until a tin pudding-boiler is filled, then boil three hours.

RICE AND APPLE-PUDDING.—This is prepared by boiling half a pound of rice in a pint and a half, till it is soft; then fill the pudding-dish half full of apples pared and cored; sweeten with molasses or brown sugar; put the rice over the fruit as a crust, and bake.

CRACKER-PUDDING.—This is made in the same manner as bread-pudding.

TAPIOCA-PUDDING.—This is made by pouring a pint of boiled milk on half that quantity of tapioca; let it stand half an hour, then add another pint of milk, sweeten, and bake. Sago-pudding is made in the same way.

SWEET APPLE-PUDDING.—This is made by putting a dozen good ripe sweet apples, cut into pieces, into a quart of milk, with a pint of Indian meal, and baking about three hours. If the apples are not very sweet, a little molasses may be added.

SNOW-BALL PUDDING.—This is made by paring and coring large apples, and inclosing them in cloths spread over with boiled rice; they are then boiled an hour. They should be dipped in cold water before being turned out of the cloths. They may be eaten with a little white sugar, &c.

COTTAGE-PUDDING.—This is one of the best preparations of which eggs form a part. Mix two pounds of pared, boiled, and mashed potatoes, with one pint of milk, three eggs and two ounces of sugar, and bake three quarters of an hour.

CUSTARD-PUDDING.—This is a preparation in which eggs are much more wholesome than they are in other puddings, particularly the farinaceous kind. Mix four eggs, well beaten, with a quart of good milk, and three table-spoonfuls of clean brown sugar; bake in castard-cups, or a common pudding-dish, about half an hour.

APPLE-CUSTARD.—This is another dish preferable to farinaceous puddings which contain eggs. Pare and core half a dozen good ripe, mealy, tart apples; boil them in a small quantity of water till moderately soft; put them into the pudding-dish, and sugar them over; then add eight eggs which have been beat up with three table-spoonfuls of sugar, and mixed with three pints of milk, and bake half an hour.

PASTRY.—Pies are an abominable diet as they are made and used at present. But they can be made more wholesome, and are even much better than the majority of puddings. Excellent pie-crust can be made of wheat-meal, shortened with good mealy potatoes and fresh cream. Rich new milk answers very well in place of the cream, &c. Indian meal may be used in place of wheat-meal to make the crust. All fruits of a sub-acid and sweet kind, may be made into pies; mumpkins and squashes are excellent, &c.

APPLE-PIES.—These may be made of ripe apples cut into thin slices, or of dried apples stewed, &c. Brown sugar or molasses, are very good to sweeten all kinds of pastry. Pears, peaches, tomato, &c., when thoroughly ripe, make excellent pies, managed the same way as apples. Currents, gooseberries, cranberries, &c., are objectionable on account of being too acid in all stages of their growth. Strawberries, blackberries, whortleberries, blackcherries, and redcherries, these are all good and make delicious pies when fully ripe. Pumpkins and squashes are also very delicious and healthful. They are to be boiled, mashed, strained, mixed with milk and water, moderately sweetened, and baked on a single crust.

CUSTARD-PIE.—This is one of the best ways of eating eggs, providing the pie is made of nothing but eggs, sugar and milk, and a crust as before said.

CAKES.—Cakes are, as a general, not adviseable, except made in the following way, and articles.

WHEAT-CAKES.—These are best made of fresh Graham flour, good brown sugar and sweat cream, raised with sour milk and super-carbonate of soda, and well baked, is a good article. Sweet cream makes a much richer and sweeter cake than lard or butter. If the cream is a little sour, its acid will neutralize the soda without the sour milk.

INDIAN-MEAL CAKE.—This is made of coarse yellow Indian-meal, it is very light and tender made in the same way. It is very good without the cream. It should be sweetened a little. Eggs are always put in all kinds of Indian-cake, but it is of course as pleasant without them, and certainly more healthy.

BISCUITS.—These made of wheat-meal or fine flour, or of wheat and Indian, or rye and Indian, may be made by the first-mentioned process, omitting the sugar.

ROOTS.—Potatoes, beets, carrots, parsnips, turnips, ground-nuts, artichokes, comfrey, &c. These are all healthful, but of different degrees of nutritive power, and must be differently adapted to weak stomachs, or stomachs accustomed to the common, concentrated, or mixed diet. The potatoe, ground-nut, comfrey and artichoke, are mealy roots, while the other are watery. The potatoe is by far preferable to the others.

Potatoes are preferable or best when they are cooked; roasted in ashes is the next best process; and baking, the next. When boiled, they ought to be taken out of the water as soon as they can be easily pierced with a fork, &c. Boiled potatoes when cold, are cut into slices and slightly browned on a griddle, make an excellent relish as a part of the breakfast. These are well calculated for dyspeptics who have craving appetites, and are liable to eat too much bread, &c. Boiled potatoes, jammed up with a little milk or sweat cream, and a little salt, are a very rich and excellent dish.

SWEET-POTATOES.—These are prepared precisely in the same way as the preceding potatoes. All the other mealy roots may be cooked in the same manner as the potatoes.

GREEN VEGETABLES.—When used they should be perfectly fresh, not dry, wilted nor long kept.

FRUITS.—As a general rule all sweet and sub-acid fruits, when full-grown and perfectly ripe, are most wholesome if eaten without any preparation or seasoning. Pumpkins and squashes, can be readily dried for winter use, by being cut into thin slices and exposed to the sun, or in a heated oven. Peach and tomato leather are prepared by squeezing out the pulp of the fruits when very ripe, and spreading them half an inch thick of plates or shingles, to dry until quite hard. Ripe tomatoes are sometimes cut into slices without peeling, and dried in an oven. The most simple and unconcentrated food is the best for invalids, or sickly people, &c.

CONDIMENTS.—In relation to seasoning food, I have named milk, sweet cream, tallow, sugar in some form, salt, and vegetable acids. These are the only that ought to be used for invalids, and never many more. It is one great humbug to make use of condiments the way they are used at present. Every thing eaten must be well greased with hogs lard, and peppered with black pepper, &c. This is stimulating enough to wear out any horse's constitution.

ANIMAL FOOD.—If this is eaten at all, it must be particularly selected and well prepared. All animal broths, soups, teas—all pickled, salted and smoked meats—all kinds of shell fish, all fried dishes, all dishes cooked in butter or other grease, all minced or other meat pies, all very oily or greasy animals or parts of animals, all and every thing pertaining to the swine—pork, bacon, lard, sausages, &c., these must all be rejected.

BEEF STEAK.—This cut from the surloin, well pounded and broiled, is a good way of preparing animal food.

MUTTON CHOPS.—This is prepared in the same way, and is next best to the preceding.

BOILED MUTTON.—This is equal to the former in healthfulness. The leg is preferable.

ROAST BEEF.—The surloin piece is, on all accounts, to be selected for roasting. The roasting process of cooking renders the fatty matter particularly subject to punishment, and thus should be carefully trimmed off before cooking.

POULTRY.—The barn-yard fowl is the best kind of tame poultry. Geese and ducks are more objectionable. Chickens may be broiled, boiled, or stewed in water with equal advantage, taking care to skin off the floating particles of oil when cooked in either of the last two methods, &c.

EGGS.—These may occasionally be used when rare boiled. They should always be fresh, and cooked by standing seven minutes in water, which is poured on them at the boiling point, but not allowed to boil afterwards.

MILK.—Milk should only be used as a condiment to season, as a part of food, &c.

POT-CHEESE, &c.—These are not objectionable when used moderately.

BUTTER.—This should always be as fresh as possible, but moderately salted and eaten cold. Bread and butter is very good and healthy, but the butter should be as small as possible in quantity.

I do not believe in so many different prepared articles for diet. I am sure if we would make use of one or two kinds of diet only, we would be the better off. As to sickly people, I would say that they should most undoubtedly bear in mind these dietetic points, and live on unconcentrated diet, and principally one kind.

In case where nourishment is indicated, a dry and unstimulating diet must be made use of.

In case where, merely, the stomach is to be filled and the appetite relished, watery diet is indicated.

In case of fever, the starving cure diet must be made use of till convalescence takes place.

PART V.

PHARMACY.

(FORMULÆ.)

BALSAMS,

By balsams is generally understood the concrete or inspissated juice of vegetables, such as balsams of fir, copaiba, &c.; but we make use of the term here to designate certain artificial preparations, which, as regard qualities or consistence, resemble balsams.

1. *Pulmonary Balsam.*

Take Spikenard, (aralia racemosa,) - - -	-	1 pound.
Horehound-tops (Marrubium vulgare,) -	-	1 "
Comfrey-root (Symphytum officinalis,) -	-	1 "
Wild-cherry bark (Prunus virginiana,) -	-	1 "
Blood root (Sanguinaria canadensis,) -	-	1 "
Elecampane-root (Inula helenium,) -	-	1 "

Add a suitable quantity of water; boil and pour off the infusion repeatedly until the strength is all extracted; then strain and reduce the liquid to twelve quarts or less, after which add of white sugar twelve pounds, and good honey twelve pounds. Boil again down to three gallons; let it stand twenty-four hours in order that it may settle; add one quart of spirits, and bottle it for use.

Dose.—A wine-glass full three or four times a day.

Use.—This preparation is highly useful in the treatment of pulmonary affections and coughs of long standing. It is admirably calculated to relieve that constricted state of the lungs which is often met with in consumption, and to assist expectoration. It does not increase the circulation, and is therefore safe in any stage of the above disease.

BITTERS.—By this class of medicines is understood certain liquids, as wine or spirits, impregnated with those vegetables which contain the greatest quantity of the bitter principle, such as gentian, centaury, aloes, &c. They are used to impart tone to the stomach.

1. *Wine Bitters.*

Take Golden-seal (<i>Hydrastis Canadensis</i>),	-	1 drachm
White wood-bark (<i>Liriodendron tulipifera</i>),		1 “
Bitter-root (<i>Apocynum androseamifolium</i>),		1 “
Cayenne pepper (<i>Capsicum baccatum</i>),	-	$\frac{1}{2}$ “

Bruise all and add two quarts of wine.

Dose.—From a table-spoonful to a wine-glass full three times a day.

Use.—This forms a very useful tonic and pleasant bitter. It is administered in dyspepsia and other complaints where tonics are indicated.

2. *Compound Bitters.*

Take Tamarack bark (<i>Pinus microcarpa</i>),	-	6 pounds
Prickly-ash bark (<i>Xanthoxylum fraxineum</i>),		4 “
Wild cherry bark (<i>Prunus virginiana</i>),	-	3 “
Seneca snake-root (<i>Polygala Senega</i>),	-	3 “
Tansy (<i>Tanacetum crispum</i>),	-	$\frac{1}{2}$ “

Let these articles be pulverized and mixed; then take of the mixture one quarter of a pound, add three pints of boiling water, two quarts of Holland gin, and one pint of molasses; let it stand a week.

Dose.—Half a wine-glass full to be taken at morning, noon, and evening.

Use.—This preparation forms a most excellent tonic for dyspepsia, obstruction of the menses, and other diseases where tonics are required.

Restorative Wine Bitters.

Take Comfrey-root (<i>Symphytum officinalis</i>),	-	1 ounce
Solomon's seal (<i>Convallaria multiflora</i>),	-	1 “
Spikenard-root (<i>Arabia racemosa</i>),	-	1 “
Columbo-root (<i>Cocculus palmatus</i>),	-	$\frac{1}{2}$ “
Gentian-root (<i>Gentiana lutea</i>),	-	$\frac{1}{2}$ “
Chamomile-flowers (<i>Anthemis nobilis</i>),	-	$\frac{1}{2}$ “

Bruise all together, and then add four quarts of Malaga or other good wine. Let it stand one week and strain.

Dose.—Half a wine-glass full three or four times a day.

Use.—This is a very useful tonic in all cases of debility, particularly in female weakness, and is remarkably beneficial in dyspepsia, chorea, neuralgia, and all nervous disorders. It is likewise pectoral and corroborant; is valuable in fluor albus and incipient consumption; indeed, it is seldom or never given without benefit.

CAUSTICS.—Caustics and escharotics are those substances which, when applied to fungus or proud flesh, or to the skin, disorganize the same. Their operation, however, differ very much, according to the agents employed—some acting very mildly, and others with great severity. They are derived from both the mineral and vegetable kingdom; but the latter are always to be preferred when they answer the indication required.

1. *Vegetable Caustic.*—(Sesqui-carbonate of Potash.)

Make a strong lye of hickory or oak ashes, put it into an iron kettle, and evaporate to the consistence of thin molasses; then remove into a sand-bath, and continue the evaporation to the consistence of honey. Keep it in a ground-stopped glass jar.

Use.—This caustic is very valuable in fistula, cancers, scrofulous and indolent ulcers—particularly where there are sinuses, necrosis, and in all cases where there is proud flesh, and also to excite a healthy action of the parts. It removes fungus or proud flesh without exciting inflammation, and acts but little except on spongy or soft flesh.

2. *Lunar Caustic.*

This preparation is in some cases of great value, applied either in substance or solution.

Use.—A piece is introduced into a quill, and the granulations occasionally touched with it; or the solution is applied in the strength desired. Eighteen grains of the caustic added to one pint of soft water, and injected daily with a syringe, forms a very efficacious application in uterine discharges, gleet, &c. In some obstinate cases, this preparation seems to afford relief when all other means proved unavailing. BEACH.

3. *Caustic Potash.*

This caustic, a little moistened, applied to ulcers, slight tumors, &c. which may appear somewhat malignant, will, by decomposing the part affected, cure the complaint. The manner of making it renders it much more corrosive than the vegetable caustic.

4. *Wood-Soot.*

This is said to be an excellent escharotic to remove fungus or proud flesh from ulcers and wounds, and may be substituted for burnt alum, being much better.

CORDIALS.—By this class of medicines we understand preparations containing the virtues of various vegetables, made in a similar manner to common cordials, chiefly with the view of rendering their medicines more pleasant in their exhibition. After a decoction of the articles composing it is sufficient concentrated, it is made palatable with sugar and spirits.

Neutralizing Cordial or Mixture.

Take Rhubarb coarsely pulverized (*Rheum palmatum*), 1 ounce
 Peppermint-leaves (*Mentha piperita*) pulverized, 1 “
 Salæratuſ (*Potassæ bicarbonas*), - - - 1 “

Mix—put the materials in a stone jar, and add one pint of boiling water; let it stand till cold, and then add half a pint of best brandy, and half a pound of loaf sugar; digest for a day or two, and strain through flannel; bottle for use. In some cases a little tincture of ladies slipper (say one ounce) may be added to the powder before the water is poured on.

Dose.—For an adult, a table-spoonful every thirty minutes, or according to the symptoms; for a child a year old, two tea-spoonfuls every two hours.

Use.—This is an invaluable remedy in cholera-morbus, dysentery and diarrhœa. It is administered in every stage of these diseases with the best effects. It is antacid, anti-dysenteric, and (saith Dr. Beach,) anti-choleraic. Nothing can be superior to this remedy in the above said diseases.

DECOCTIONS.—These are certain preparations of medicines and drinks, made by boiling substances in water for a considerable time. Where we wish to administer the virtues of any plant in a small dose, in the form of drink, decoctions are very useful. Some herbs lose a part of their virtues by boiling, and are given best in some other form. Vegetables designed for decoction should be cut into slices, or bruised into a coarse powder, that their strength may be more easily extracted. One ounce of an article to a pint of water, may be taken as a general rule. Dose from one to four ounces.

Rheumatic Decoction.

Take Virginia snake-root, (*Aristolochia Serpentaria*), 1 drachm.
 White-pine bark, (*Pinus Strobus*) - - - 2 “

Burdock seed, (<i>Arctium lappa</i>)	-	2 drachm.
Prickly-Ash bark, (<i>Xanthoxylum fraxineum</i>)	2	"
Poke-root, (<i>Phytolacca decandria</i>)	-	2 "

Pulverize all together, and add half a gallon of water; boil down to three pints.

Dose.—Half a pint, two or three times a day.

Use.—This forms an excellent decoction in chronic rheumatism.

Urinary Decoction.

Take Marshmallows, <i>Althoea officinalis</i> ,	3 ounces.
Queen of the meadow (<i>Eupatorium purpureum</i>)	3 "

Add four quarts of water, and boil it down to one; then add one ounce of gum-arabic, and half an ounce of pulverized nitre.

Dose.—A teacupful three or four times a day.

Use.—This is a valuable remedy in nephritis, or inflammation of the kidneys. It is likewise useful in the treatment of inflammation of the bladder; in hematuria, or bloody urine, and other urinary diseases. It is a demulcent diuretic.

Diaphoretic Decoction.

Take Pleurisy-root (<i>Asclepias tuberosa</i>),	-	-	2 ounces.
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Boil it a few minutes in a quart of water, and then strain.

Dose.—A teacupful.

Use.—This decoction has been proved a highly useful remedy in the treatment of pleurisy, and others; of pneumonia, or inflammation of the lungs.

Decoction of Cohosh.

Take Black Cohosh, (<i>Macrotys racemosa</i>),	-	-	2 ounces.
Water,	-	-	2 quarts.

Boil it down to three pints.

Dose.—From a wineglassfull to a gill, sweetened, three or four times a day.

Use.—The foregoing preparation is an excellent article in treating uterine hemorrhage, fluor-albus or whites, obstructed menstruation, coughs, and rheumatism.

Sarsaparilla Decoction.

Take Bruised Honuras Sarsaparilla, or American		
Sarsaparilla,	-	2 ounces.
Boiling Water,	-	1 quart.

Simmer until the strength is extracted, and then sweeten.

Dose.—A gill three or four times a day.

Use.—This is used as an alterative or purifier of blood, in all diseases and impurities of the blood, and is more to be depended upon than any of the syrups of this root.

DROPS. (GUTTÆ).—Drops include medicines which from their strength or active properties, require to be given in very minute quantities; the dose being usually graduated by the number of drops to be administered. Great caution is necessary in giving this class of remedies, as mistakes are more liable to be made in this than in some other forms. Vials containing drops must always be kept corked, that the strength may not be increased by evaporation, or the virtues of them lost. They may be taken in a little sweetened water.

Diuretic Drops.

Take Sweet Spirits of Nitre, (Spiritus ætheris nitrici,) 2 ounces.
 Balsam of Copaiba (Copaifera officinalis,) 1 “
 Tincture of Gum Kino, (Pterocarpus erinaceus,) $\frac{1}{2}$ “
 Spirits of Turpentine, Pinus palustris, - 1 “

Mix these together, and add one scruple of camphor.

Dose.—A small teaspoonful, well shaken, given in mucilage of Gum Arabic, three or four times a day.

Use.—These drops are successfully administered in cases of scalding of urine, whether arising from syphilitic or other complaints. In inflammation of the kidneys, fluor-albus, &c., they give prompt relief. They are superior to all other preparations for these uses, and particularly in gonorrhœa. A beautiful emulsion is made of these drops by adding the white of an egg, well beat up.

Tar Drops.

Take best Oil of Tar, Pinus palustris.

Dose.—Give four to ten drops, in a little milk, three or four times a day.

Use.—These drops form a good remedy for pain in the breast.

Carminative Drops.

Take Angelica, Angelica atropurpurea, - 4 ounces.
 Lady's Slipper, Cypropedium flavum, - 2 “
 Sweet Flag, Acorus calamus, $\frac{1}{2}$ “
 Anise, Pimpinella aniuia, - - - 1 “
 Dill, Anethum graveolens, - - - 1 “
 Fennel-seed, Anethum fœniculum, - - 1 “
 Catnep flowers or leaves, Nepeta cataria, - 2 “
 Motherwort, Leonarus cardiaca, - - 2 “
 Pleurisy-root, Aselepias tuberosa, - - 4 “

Infuse the whole in two quarts of brandy or good common spirits, and digest with a moderate beat for twenty-four hours; then press out and strain the liquid, and add to it half a pound of loaf-sugar; when settled, bottle it for use.

Dose.—For children, from ten to sixty drops, according to the age; for adults, from one to four teaspoonfuls, in a cup of warm tea. It may be repeated once in four or six hours.

Use.—This preparation eases pain, creates a moderate perspiration, and produces refreshing sleep; is good for restless children, removing flatulency and wind-colic, and is useful in hysteric and nervous affections, female debility, &c.

Fever Drops:

Take expressed juice of Houseleek, *Sempervivum tectorum*, strained, - - - - 1 pint.
Loaf-sugar, - - - - - 1 pound.

Simmer half an hour, to form a syrup.

Dose.—A tablespoonful every three hours, after proper evacuants have been taken.

Use.—This preparation has been employed for thirty years, and has never been known to fail in relieving or curing fevers. In one case of inflammatory fever which had resisted my usual prescriptions, these drops reduced it almost immediately.

Nervous Drops.

Take Spirits of Hartshorn, *Spiritus ammoniæ*.

Dose.—Ten drops, or more, taken in a little water.

Use.—These drops are very valuable to administer in cases of fainting and hysteria.

ESSENCES.—These are made by adding alcohol to the essential oils, generally in the proportion of one ounce of oil to sixteen ounces of alcohol. They are applied externally to relieve pain, and are used with advantage internally for many complaints.

Essence of Peppermint.

Take Oil of Peppermint, *Mentha piperita*, - - 1 ounce.
Alcohol, *spiritus rectificatus*, - - - - 1 pint.

Mix. *Dose*—A teaspoonful.

Use.—This is useful in pain of the breast, cramp, sickness of the stomach, &c.

Compound Essence of Valerian.

Take Essence of Valerian, *valeriana officinalis*, - 1 ounce.
Essence Castor, *Castoreum*, - - - - 1 "

Dose.—A teaspoonful three times a day, for eight days; then a teaspoonful twice a day for eight days, and afterward continue with one teaspoonful a day.

Use.—This preparation is employed for epilepsy, fits, &c.

EXTRACTS.—The simple extracts are treated of under the head of *Materia Medica*. The formulæ there inserted are

mostly those where two or more materials are combined to form a compound extract.

Dr. Bone's Extract of Poke.

Take expressed juice of Poke, *Phytolacca decandria*, $\frac{1}{2}$ gallon.
 Gunpowder, - - - - - 1 gill.
 Lard, - - - - - $\frac{1}{2}$ pint.

Simmer to the consistence of honey or molasses.

Use.—This forms a very efficacious extract or plaster for scrofulous, cancerous, and indurated tumors. It may be rubbed upon the parts affected, or a plaster of it applied.

EYE-WATERS. (COLLYRIUMS.)—Eye-Waters, or Collyriums, are prepared from either mineral or vegetable substances, and being usually added to spirits or water, are applied to the eyes in the form of wash. They should first be applied very weak, and the strength gradually increased.

Mucilaginous or Laurus Eye-Water.

Take the pith of sassafras-twigs, *Laurus sassafras*, 1 drachm. Add to it a suitable quantity of rose-water, which makes an excellent mucilaginous and cooling wash.

Use.—This collyrium will be found very beneficial in the treatment of ophthalmia, or inflammation of the eyes, during the acute stages.

Compound Myrrh Collyrium. Stimulating Eye-Water.

Take of powdered Gum Myrrh, one ounce; sulphate of zinc and sugar of lead, of each half an ounce; boiling water two quarts; mix, let them macerate fourteen days, and filter. In the preparation of this lotion, a decomposition necessarily ensues.

Used in chronic ophthalmia. KING.

FOMENTATIONS.—Fomentations may be regarded as a species of local bathing. Although the decoctions usually employed are useful in aiding warmth by their soothing or sedative influence, yet they are secondary objects in the application of fomentations, the intention being to convey heat, combined with moisture, to the part fomented. Flannel cloths wrung out of boiling water by means of two sticks turned in opposite directions, form the best fomentations. If they be shaken up and laid lightly over the part, they involve a considerable quantity of air, which being a bad conductor, retains the heat in them for a considerable time. In every process of fomenting, there should be two flannels each three yards long, with the ends sewed together, to admit of the boiling water being wrung

out of them; and the one flannel should be in readiness while the other is applied. The fineness or the coarseness of the flannel is not a matter of indifference; the coarser it is the less readily does it conduct heat, and the longer it retains its warmth; therefore, it is more efficient for fomenting. White flannel also retains heat longer than colored. Fomentations are usually composed of several kinds of bitter herbs, and are very useful to relieve pain and inflammation, by taking off tension and spasm, or to brace and restore the tone and vigor of those parts to which they are applied. The first of these intentions may generally be answered by warm fomentations, and the second by those that are cold. They should often be renewed. This class of remedies are very valuable in a great majority of complaints.

Hop-Fomentation.

Take two handfuls of hops, *Humulus lupulus*, and add equal parts of water and vinegar. Make a strong decoction.

Use.—In case of sore throat, hoarseness, or soreness of the breast, severe pain in the abdomen, colic, dysentery, &c. This will give ease and allay irritation. Apply warm and often renew it.

Stimulating Fomentation.

Take Red or Cayenne pepper, <i>Capsicum annum</i> ,	2	ounces.
Mustard-seed bruised, <i>Sinapis alba</i> ,	2	“
Alcohol,	2	“

Simmer these together for a few minutes.

Use.—This is employed as an external application in cholera, paralysis, or palsy.

GARGLES.—Gargles are very useful in many complaints, particularly in aphthæ, quinsy, fevers, &c. By this class of remedies we understand certain infusions, decoctions, or other liquids, designed for washing the throat, which by their stimulating or detergent properties, become efficacious. Adults can generally gargle their mouth or throat with little difficulty; but infants and children require an assistant to apply them, which is best done by tying a small piece of linen to a probe or stick, dipping it in the liquid, and often applying it. They should never stimulate, except in severe cases.

Stimulating Gargle.

Take Sumach-berries, *Rhus glabra*, - sufficient quantity.
 Golden Seal, *Hydrastis canadensis*, “ “
 Make a strong decoction, strain, and add one drachm of pulverized allum to every pint.

Use.—This gargle may be employed in ulcerated sore throat of long standing.

Astringent Gargle.

Take black cohosh, *Macrot'y's racemosa*, a sufficient quantity, and make a strong decoction.

Use.—This forms a gargle which is much used in quinsy and sore throat.

Yeast Gargle.

Take Yeast.	-	-	-	-	-	1 wine-glassful.
Milk,	-	-	-	-	-	1 gill.

Use.—This sweetened with molasses, forms an excellent gargle for sore throat.

Gargle for Putrid Sore Throat.

Take Sumach bark, <i>Rhus glabra</i> ,	-	-	-	4 ounces.
High Blackberry, <i>Rubus villosus</i> ,	-	-	-	4 "
Common White-Elm bark, <i>Ulmus Fulva</i> ,	-	-	-	4 "
White-Oak bark, <i>Quercus alba</i> ,	-	-	-	4 "
Virginia Snake-root, <i>Aristolochia Serpentaria</i> ,	-	-	-	2 "
Nanny-berry bark, <i>Viburnum lentago</i> ,	-	-	-	4 "

Take a strong decoction, add a piece of alum, and sweeten well with honey, then bottle for use. Apply often to the sores with a rag; it may at first irritate a little, but afterward effects a cure.

Pepper Gargle.

Take Cayenne pepper, pulverized, (<i>Capsicum</i>	-	-	-	-	2 tablespoonfuls
baccatum,)	-	-	-	-	1 "
Commom salt,	-	-	-	-	1 "
Boiling vinegar,	-	-	-	-	$\frac{1}{2}$ pint
Boiling water,	-	-	-	-	$\frac{1}{2}$ "

Mix, infuse and strain.

Use.—This gargle is employed in bad cases of scarlatina.

INFUSIONS.—Infusions (or, as they are usually denominated, teas,) form a very common and good method of administering the virtues of various medicinal agents. It is probably the most natural if not ancient mode of preparing medicine. A two-fold benefit is derived from infusions: first, the medicinal properties of the article made use of; second, the heat and diluent properties of the water.

Infusion of Virginia Snake-root.

Take Virginia snake root,	-	-	-	-	1 ounce.
Boiling water,	-	-	-	-	1 pint

Infuse for two hours in a covered vessel and strain.

Use.—This forms an excellent tonic for convalescent patients; it is also very useful in febrile diseases, particularly when there is little or no remission.

Compound Infusion of Senna.

Take Alexandria Senna (*Cassia acutifolia*, &c.) $\frac{1}{2}$ ounce
 Manna (*Fraxinus ornus*;) - - - $\frac{1}{2}$ “
 Cream of tartar (*Potassæ bitartras*;) - $\frac{1}{2}$ “
 Fennel-seed, bruised (*Anethum fœniculum*;) 1 teaspoonful

Add one pint of boiling water to the senna and manna; when cold, strain, add the cream of tartar, and sweeten.

Dose.—A wine-glass full may be taken every hour until it purges.

Use.—This forms a cleansing and cooling purgative; it is useful in fevers and inflammatory diseases, and is one of the best cathartics.

Injection. (Enemas, or Clysters.)

Injections or clysters, are certain liquids thrown into the rectum by artificial means. The large French syringes are the best, for adults and smaller ones for children.

Common Injection.

Take sweet milk, - - - - - 1 pint
 Mucilage of slippery-elm (*ulmus fulva*;) - - - 1 “
 Olive, or sweet oil (*Olea europœa*;) - - - 1 gill
 Molasses, - - - - - $\frac{1}{2}$ pint
 Common salt, - - - - - 1 ounce

Mix.

Use.—This forms an injection of much value, and may be employed in almost every case where one is indicated. It is frequently used with admirable effects in dysentery, cholera, and diarrhœa. The administration should be made with a large sized French syringe.

Stimulating Injection.

Take Lobelia (*Lobelia inflata*;) - - - - - 1 drachm
 Red pepper (*Capsicum annum*;) - - - $\frac{1}{4}$ “

Make an infusion, sweeten, and introduce from half a pint to a pint.

Use.—This injection is occasionally employed in very obstinate cases of costiveness, bilious and painters' colic, strangulated or incarcerated hernia, and similar affections.

LINIMENTS.—Liniments are preparations employed in frictions or embrocations on the skin. They are usually composed of oily, spirituous and gummy substances; as some of the essential oils, alcohol, soap, camphor, &c. Liniments are used externally for rheumatism, quinsy and other painful affections.

Common Liniment.

Take castile soap, - - - - -	1 ounce
Oil of sassafras, laurus sassafras, - - - - -	1 "
Camphor, laurus camphora, - - - - -	1 "
Spirits of hartshorn, aqua ammonia, - - - - -	1 "
Alcohol, spiritus rectificatus, - - - - -	1 "

Mix.

Use.—This forms an excellent liniment in diseases of the throat and tonsils.

Irritating Liniment.

Take spirits of turpentine, pinus palustris, - - - - -	1 ounce
Croton oil, croton tiglium, - - - - -	$\frac{1}{2}$ "
Olive oil, olea europæa, - - - - -	1 "

Add a little origanum or sassafras oil, and mix.

Use.—One of the best counter-irritants for chronic and deep-seated pains; rubbed in daily, it produces copious eruptions. It is good in bronchitis.

Hemlock Liniment.

Take oil of hemlock, pinus canadensis, - - - - -	1 ounce
Gum camphor, laurus camphora, - - - - -	1 "
Gum opium, papaver somniferum, - - - - -	$\frac{1}{2}$ "
Alcohol, spiritus rectificatus, - - - - -	1 quart

Mix.

Use.—This forms an extraordinary combination for all cases of pain, particularly of an inflammatory character, where heating liniments prove too stimulating. It seldom fails to afford relief in inflammatory rheumatism, gout, quinsy, white swelling, inflamed breasts, &c. Apply frequently.

Compound Liniment of Oils.

Take oils, origanum, hemlock, and cajeput, of each, - - - - -	1 pound
Camphor, - - - - -	1 "

Mix together and dissolve the camphor; then digest capsicum, or cayenne pepper, half a pound in the mixture, letting it stand for two weeks. Filter.

Use.—Used wherever active counter-irritation is required, in indolent tumors, indurated mammæ, &c.

Camphorated Soap Liniment, or Opodeldoc.

Take common white soap, - - - - -	2 ounces
Camphor, - - - - -	1 "
Oil of rosemary, - - - - -	3 drachms
Oil of origanum, - - - - -	2 "
Spirits of hartshorn, aqua ammonia, - - - - -	1 ounce
Alcohol, - - - - -	1 pint

Digest the soap with the alcohol by means of a sand bath, (placing any common pan or vessel on the stove, with several

inches of sand in it, and into this warm sand place the bottle or vessel with the medicine in, and dissolve in this manner,) till it is dissolved; then add the camphor, oils, and ammonia, and when they are dissolved, pour the liquor into broad or salt mouthed bottles. This liniment has, when cold, the consistence of a soft ointment.

Use.—As an anodyne application in sprains, bruises, rheumatic pains, &c., &c.

LIQUIDS.—Liquids include such medicines as are made from various solvents, such as spirits, wine, water, &c. They are usually compound preparations.

Rheumatic Compound.

Take white turpentine, pinus palustris, - - 4 ounces
 Poke berries, phytolacca decandria, - 4 "
 Malaga wine, or metheglin, - - - 2 gallons

Let these articles be mixed and stand one week; then filter and bottle for use.

Dose.—Half a wine-glass full three times a day.

Use.—This liquid forms an excellent preparation for chronic rheumatism.

Anti-Pyrosis Liquid.

Take compound tincture of senna, elixir salutis, 1 pound
 Tincture of balsam tolu, balsamum toltutanum, 1 ounce
 Mix.

Dose.—A table-spoonful every morning or evening.

Use.—This will be found efficacious in removing the troublesome symptoms of water-brash. It may be taken, mixed in sweetened water every night on going to bed.

MIXTURES.—Mixtures are a combination of medicines in a liquid, or when substances are diffused through liquids by means of mucilage or syrup.

Neutralizing Mixture, or Physic.

Take Rhubarb, pulverized, Rheum palmatum, 2 scruples.
 Sakeratus pulverized, - - - 2 "
 Peppermint-plant pulverized, Mentha piperita, 2 "
 Mix.

Dose.—From half to a teaspoonful, every one, two or three hours till it operates. For children, in proportion to the age.

Use.—This is one of the most valuable preparations known for cholera-morbus, cholera-infantum, or summer-complaint of children, diarrhœa, dysentery, &c.

Whooping-Cough Mixture.

Take Ipecacuanha, *Cephalis ipecacuana*, - 14 grains.
 Lukewarm water, - - - - - $\frac{1}{2}$ "

Mix and digest.

Dose.—The dose of this mixture is one teaspoonful occasionally.

Elixir of Vitriol.

Take oil of vitriol, *Acidum Sulphuricum*, - $3\frac{1}{2}$ fl. ounces.
 Ginger, bruised, *Amomum Zingiber*, - 1 "
 Cinnamon, *Laurus cinnamomum*, - $1\frac{1}{2}$ "
 Alcohol, *Spiritus rectificatus*, - 1 quart.

Drop the acid gradually into the alcohol, and digest in a close vessel for three days; then add the other articles, macerate for a week, and filter.

Dose.—From ten to fifteen drops, taken occasionally.

Use.—This mixture forms a valuable remedy in checking night sweats.

Compound Uva-Ursi Mixture.

Take tincture of buchu, *Diosma crenata*, $\frac{1}{2}$ ounce.
 Mix. Decoction of *Uva Ursi*, *Arlutus uva ursi*, $7\frac{1}{2}$ ounces.

Dose.—Half a wine-glassful four times a day.

Use.—This preparation has been employed in chronic catarrh of the bladder, and in chronic mucus discharges from the vagina and urethra.

MUCILAGES.—Mucilages are soft, bland substances, made by dissolving different kinds of gum, or the roots, leaves, or other parts of plants, which abound with these properties. These drinks are useful in diseases of the bowels, urinary organs, &c.

Mucilage of Gum Arabic.

Take gum arabic, - - - - - 4 ounces
 Boiling water, - - - - - 8 "

Rub the gum with the water gradually until it forms a mucilage; then strain.

Dose.—Half a wine-glass full three or four times a day.

Use.—It is very useful in diseases attended with heat, in scalding of the urine, and as a vehicle for taking diuretic and other drops.

Mucilage of Slippery Elm.

Take slippery elm bark, *ulmus fulva*, - - 1 drachm
 Boiling water, - - - - - 1 quart

Let it stand an hour and form a mucilage.

Use.—This mucilage is employed in gastro-enteritis, or inflammation of the stomach, in bowel complaints generally, &c.

OILS.—Oils are of various kinds, and used either singly or combined. When applied externally, they are generally employed for rheumatism and other painful affections.

Rheumatic Oil.

Take oil of wormwood, artemisia absinthium,	-	1 ounce
Oil of sassafras, laurus sassafras,	-	1 "
Oil of cedar, juniperus virginiana,	-	1 "
Oil of hemlock, pinus canadensis,	-	1 "
Oil of turpentine, pinus palustris,	-	1 "
Oil of olives, olea europæa,	-	4 "
Camphor, laurus camphora,	-	1 "

Mix.

Dose.—This oil is exceedingly efficacious in relieving pain in chronic rheumatism. It is also a good remedy in sprains, contusions, and in painful affections of almost every description. It may be applied warm three or four times a day to the affected parts, which are to be well rubbed with the hand, or a soft flesh brush.

OINTMENTS.—Ointments form a class of medicines which contain the properties of certain vegetables designed for external use. Their consistence is softer than that of salves or plasters—the heat of the body being sufficient to melt them. Lard and butter, or oil with wax, are principally used to make them. Ointments are preserved by keeping them in glazed jars, with the surface covered with tin foil.

Stramonium, or Jamestown Ointment.

Take fresh stramonium leaves, or Jamestown leaves, datura stramonium, a proper quantity; bruise them to a pulp and put them into an earthen vessel, cover with spirits and lard, simmer the leaves until they become crisped, then strain. Some add of venice turpentine half a pound to every ten pounds of ointment; but I prefer each separate.

Use.—This is a good application for scalds, burns, piles and cutaneous eruptions, attended with inflammation. It may be applied with the finger or a piece of linen.

Yellow Ointment.

Take lard or fresh butter,	-	1 pound
Flowers of sulphur, sulphur sublimatum,	-	4 ounces
Mix together and stir till cold.		

Use.—The yellow ointment is employed in the treatment of piles, and is likewise very useful in itch and in tetter or salt rheum.

Itch Ointment.

Take sulphur, fine, sulphur vivum,	- - -	1 ounce
Venice turpentine, pinus larix,	$\frac{q}{ss}$ - -	1 "
Lard,	- - -	1 pound

Melt the lard and turpentine; then add the sulphur, and stir till it is cold. Let it be applied two or three times a day.

Use.—It soon cures the complaint without the necessity of changing the clothes.

Tobacco Ointment.

Take tobacco, cut fine, nicotiana tabacum,	-	$\frac{1}{2}$ pound
Cover with spirits, and add fresh lard,	-	1 "

Simmer over a moderate fire until the herb is a little crisped, then remove and strain.

Use.—For piles, salt rheum, and herpetic or tetter affections. This makes the best pile-ointment of any in use, to be applied two or three times a day.

Bittersweet Ointment.

Take bark of bittersweet root, celastrus scandens,	4 ounces
Cover with spirits, and add unsalted butter,	1 pound

Simmer and strain.

Use.—This makes one of the best ointments for tumors, swelled breast, and other affected parts. It may be applied two or three times a day.

Henbane Ointment.

Take extract of henbane, hyosciamus niger,	-	1 drachm
Lard,	- - - - -	1 ounce

Mix and rub together into an ointment.

Use.—This ointment forms a good application to painful piles.

Pile Ointment.

Take belladonna ointment, unguentum belladonna,	2 ounces	
Camphor pulverized, laurus camphora,	-	1 drachm
Opium pulverized, popaver somniferum,	-	1 "

Mix, and make an ointment.

Use.—A valuable application to painful piles, and along the urethra in chordee.

Belladonna Ointment.

Take extract of belladonna, atropa belladonna,	2 drachms	
Unsalted butter or lard,	- - -	1 ounce

Rub up together.

Use.—Good in painful affections, as piles, chordee, ear-ache, &c.

Sulphur Ointment.

Take sulphur,	-	-	-	-	-	-	1 pound
Lard,	-	-	-	-	-	-	4 "
Oil of bergamot	-	-	-	-	-	-	2½ drachms

Mix.

Use.—This is a specific for the itch. It should be applied every night till the complaint is cured. Four applications are usually sufficient to effect a cure. Also useful in tinea capitis, crusta lactea, and other cutaneous diseases.

PILLS. [*Pilulæ.*]—Pills are certain small, round substances, composed of medical agents, and are designed to operate in small doses—the disagreeable taste or smell of which renders it necessary that they should be concealed from the palate. In general they do not operate as soon as medicine in other forms. In pills is a good way to administer many kinds of medicine, as some persons can take it prepared in this manner better than in any other; also the dose can be so easily decreased or increased. Powdered licorice and powdered gumarabic, &c., are important articles in forming pills. The articles to be administered in this mode should first be formed into a consistent, moderately firm mass—sufficiently plastic to admit of its being moulded into shape, without adhesion to the moulding instrument, and yet of so firm a consistence as to retain the form given to it. To accomplish this, the following rules must be attended to:

1. "All the constituents which can be pulverized must be reduced to the state of a fine powder, and then thoroughly mixed together.

2. "If soft ingredients enter into the composition, they must be triturated with the harder articles, which thus serve as an intermedium.

3. "No deliquescent salt should enter into the composition of officinal pills; otherwise they will become altered and decomposed."

Anti-Dyspeptic Pill.

Take aloes powdered, aloe socotorina,	-	-	-	-	4 ounces
Castile soap,	-	-	-	-	2 "
Gamboge, stalagmitis gambogia,	-	-	-	-	2 "
Capsicum, or cayenne pepper,	-	-	-	-	2 "
Lobelia seeds,	-	-	-	-	2 "
Extract of gentian, gentiana lutea,	-	-	-	-	4 "
Podophylline, or extract of mandrake,	-	-	-	-	1 "
Extract of boneset,	-	-	-	-	1 "

Beat and work the mass well together, and add twenty drops of oil of cloves. Form into a common size pill.

Dose.—One to four morning and evening, as they operate.

Use.—This is a very valuable pill; while it cleanses the stomach and bowels, it restores the tone, without causing debility. It is also good in obstructed menses.

Hydragogue Pill.

Take Jalap, pulverized, Ipomea jalapa, - 1 scruple.
 Scammony, Convolvulus scammonia, - 1 "
 Gamboge, Stalagmitis gambogia, - - 1 "

Add mucilage of gum-arabic sufficient to form into sixteen pills.

Dose.—One every hour or two.

Use.—This pill has cured the dropsy, and may be given when other means fail.

Capsicum or Stimulating Pill.

Take Cayenne Pepper; add sufficient mucilage to form into pills.

Dose.—Give one twice or three times a day.

Use.—This pill forms an excellent article for employment in dropsy of the chest, flatulence, indigestion, pains, cramps, colic, cholera, &c.

Mandrake or Podophylline Pill.

Take extract of Mandrake or Podophylline - 2 parts.

Cayenne pepper, pulverized, Capsicum baccatum, 1 "

Mix and form into pills of the common size.

Dose.—Three or four at night, or sufficient to regulate the bowels.

Use.—Excellent for liver, bilious, dropsical, dyspeptic, and nervous complaints.

Pill for Chronic Bronchitis and Asthma.

Take Tar, Pinus palustris, - - - 2 ounces.

White Sugar, Saccharum alba, - - - 1 "

Skunk-cabbage-root, pulverized, Ictodes foetida, 2 "

Mix and rub up into pills.

Dose.—Take one pill every one, two, or three hours, as they agree with the stomach, and continue daily till cured, which, in most cases, will be from four to six weeks.

Use.—This pill is recommended as a specific for chronic bronchitis.

Hepatic Pill.

Take extract of dandelion, Leontodon taraxacum, 1 ounce. /

Mandrake, pulverized, Rodophyllum peltatum, 1 "

Blood-root, pulverized, Sanguinaria canadensis, 1 "

Add a few drops of essential oil, peppermint or spearmint, and form the mass into pills of the common size.

Dose.—Take three night and morning.

Use.—This is a extraordinary remedy for the liver complaint. In general, it soon removes the pain in the side, shoulder, &c., and is excellent in jaundice and affections of the kidneys.

Rheumatic Pill.

Take inspissated juice of Poke, *Phytolacca decandria*, 1 ounce.

Gum-Turpentine, *Pinus palustris*, 1 “

Gum-Guaiacum, pulverized, *Guaiacum officinale*, 1 “

Mix, melt and strain. When sufficiently cool, form into pills.

Dose.—Take three, morning, noon and night.

Use.—This pill forms an excellent medicine in the treatment of rheumatism.

Anti-Bilious Pill.

Take Aloes, pulverized, - - - 2 ounces.

Gamboge, and extract of Boneset, of each 1 “

Castile Soap, - - - $\frac{3}{4}$ “

Extract of Mandrake or Podophylline, $\frac{1}{2}$ “

Lobelia-seeds, pulverized, and extract of Gen-

tian, of each, - - - $\frac{1}{2}$ “

Cayenne Pepper, capsicum, - - - $\frac{1}{4}$ “

Oil of Cloves, - - - 1 dram.

Warm the extracts until they are quite soft, and add the dry articles in fine powder: mix the mass thoroughly in a mortar, and add the oil, working that in until intimately mixed—make up into five grain pills.

Dose.—As an active cathartic, 4 to 6 pills; as an emeto-cathartic, five to seven; as an aperient, one to 3.

Use.—This makes one of the best pills for all ordinary complaints, and purges without griping, and also leaves the bowels in a lax state. Also an emeto-cathartic will often if not always break up bilious fevers.

Cough Pill.

Take extract of Henbane, *Hycosium niger*, - 1 ounce.

Canada Balsam, *Pinus balsamea*, - 1 “

Ipecac, or Lobelia, *Ipecacuanha-Lobelia inflata*, 1 “

Extract of Balsam-of-Gilead buds, *Populus*

balsamea, - - - 1 “

Mix and incorporate well together, and add a few drops of the oil of anise; form into pills of the ordinary size.

Dose.—One or two, three or four times a day.

Use.—This is a most excellent cough medicine. I really deem it superior to any other compound of the kind. It allays the irritability of the mucus membrane, the bronchitis tubes, and the lungs, and will be found exceedingly valuable in deep-seated coughs and all diseases of the chest. The bad effects of

opium, "says Dr. Beach," (so much used in coughs,) are in this pill entirely obviated, and it is altogether better than the cough-drops, which I now dispense with.

Diuretic Pill.

Take Solidified Copaiba, <i>Copaifera officinalis</i> ,	2 ounces.
Alcoholic extract of Cubebs, <i>Piper cubeba</i> ,	1 "

Incorporate together, add a few drops of the oil of juniper, and form into pills of an ordinary size.

Dose.—One or two, three or four times a day.

Use.—This is equally valuable with the cough-pill. For chronic affections of the kidneys, bladder and urethra, and also in gravel, gonorrhœa, gleet, and fluor-albus, it is superior to any similar preparation. I have cured a case of gravel with this pill where all other means proved useless.

PLASTERS.

In making plasters, in most cases it is necessary to operate at a temperature that will not volatilize or carbonize the ingredients; hence, a water-bath or steamheat is preferred. Plasters should be made in metallic vessels, much larger than will contain the substances to be operated upon as the mass increases in bulk by the action of heat causing an extrication of vapors. The ingredients should be thoroughly stirred together during the process of melting. When this operation is concluded, the plaster is to be removed, in small portions at a time, into a vessel constantly supplied with cold water; and when sufficiently consistent, rolled into cylinders on a wet marble, and again placed into cold water and harden. To render plasters of a lighter color, they are kneaded and pulled under water; but this process should not be practised on compound plasters containing substances soluble in water; nor should these plasters be cooled in water, but suffered to chill on a marble slab until fit to be made into rolls, or put in tin boxes.

"Plasters are preserved by enveloping the rolls with paper, to exclude the air as much as possible. When kept for any length of time, they are apt to become hard and brittle, and to lose their color. When this is the case, they should be re-melted by a gentle heat, and sufficient oil added to restore their proper consistence."

Ferris's Black Plaster.

Take white oak bark, *Quercus alba*, a proper quantity; bruise, and add urine sufficient to cover it. Let it stand two or three days, and then boil it till it becomes of the consistence of honey; to every five pounds add one pound of honey, and one

pound of strained gum-turpentine, *Pinus Palustris*. When the plaster is intended to be employed as an escharotic, add two drachms of pulverized white vitriol, *zinci sulphas*, to every ounce.

Use.—This forms a very valuable plaster for cancers, ulcers, or white swelling in a state of ulceration, and for the removal of spongy or fungus flesh. It excites but little pain or inflammation. It should be spread on linen or a soft piece of leather. This is the celebrated cancer plaster of Dr. Ferris.

Strengthening Plaster.

Take Hemlock-Gum, *Pinus canadensis*, - - q. s.

Dissolve and strain it.

Use.—This is an excellent strengthening and stimulating plaster. It is employed in chronic rheumatism, weakness in the back, &c.

Astringent Plaster.

Take White-Oak bark, *Quercus Alba*, - - q. s.
Macerate it in cold water for one day; then put it into a boiler, and evaporate until an extract is obtained.

Use.—This plaster is very useful in hernia; it is to be spread on a piece of soft leather and applied over the rupture, after which a truss must be worn.

Compound Strengthening Plaster.

Take Yellow Reisen, *Pinus palustris*, - - 1 pound.
Bees-wax, - - - - - 4 ounces.
Cayenne pepper, *Capsicum baccatum*, 4 "
Spirits, - - - - - 1 quart.

Simmer the pepper; (enclosed in a linen bag,) in the spirits, and strain. Melt the other articles together and add the tincture; then simmer till the spirits are nearly evaporated. Remove it from the fire, when nearly cold, add—

Gum Camphor, *Laurus Camphora*, - 2 ounces.

Oil of Sassafras, *Laurus Sassafras*, - 3 drachms.

Use.—This article may be employed whenever a strengthening-plaster is wanted. It seldom or never fails to afford relief. B.

For Hydrophobia.

The instant you are bitten, tie your handkerchief or any ligature above the wound or part bitten as lightly as possible, in order to interrupt the circulation and prevent the absorption of the poison. After washing well in soap-suds and spirits, apply a cupping-glass, and lastly cauterize well. The following formulæ has also been recommended:

Take Bar-Soap, - - - - - 2 ounces.
Common Salt, - - - - - $\frac{1}{2}$ ounce.
Wood-Soot, - - - - - $\frac{1}{2}$ "
Spirits of Turpentine, - - - - - $\frac{1}{2}$ "

Make it into a salve, and apply it to the wound, changing it every two hours. It will extract the poison, except what has embodied itself under the tongue. This must be examined every day, and as soon as the glands underneath it present a green appearance, they must be opened and the matter let out for nine days after its first exhibition. BEACH.

Aconite Plaster.

Take Alcoholic Extract of Monkshood, *Aconitum napellus*, q. s. Spread it over part of the surface of common adhesive plaster.

Use.—This plaster applied over the painful part, has been highly recommended in neuralgia.

Anti-Inflammatory Plaster.

Take Lard,	-	-	-	-	1 pound.
Yellow Wax,	-	-	-	-	$\frac{3}{4}$ "
Sweet Oil,	-	-	-	-	$\frac{1}{2}$ pint.
Sugar of Lead,	-	-	-	-	$\frac{1}{2}$ ounce.

Melt the Lard and Wax together, simmer the sweet oil and gradually drop the sugar of lead into, then strain, and then mix the whole together, and stir constantly till cold.

This is the celebrated anti-inflammatory plaster of Dr. Konig-maker, so much in use now for local inflammations. But as a real fact, this plaster like all lead preparations, instead of expelling poison, they repel or drive in poison, and make nature retain it. As to lay or reduce inflammations, I prefer the general principles laid down in this work, on hydropathic scale.

Irritating Plaster.

Take Blood-root, <i>Sanguinaria Canadensis</i> ,	-	$2\frac{1}{4}$ ounces.
May-apple-root, <i>Podophyllum Peltatum</i> ,	-	$2\frac{1}{4}$ "
Indian-Turnip, <i>Arum triphyllum</i> ,	-	$2\frac{1}{4}$ "
Poke-root, <i>Phytolacca decandria</i> ,	-	$2\frac{1}{4}$ "
Tar,	-	1 quart.
Rosin,	-	4 ounces.

Boil the tar until its water is evaporated; add the rosin and let it melt; cool it a little and add the powders while it is nearly boiling hot, and stir briskly until it becomes stiff. It is to be spread on thin soft leather.

Use.—Irritant, rubefacient and suppurative; used extensively in all cases where counter-irritation or powerful revulsion is indicated. To use this plaster, it should be spread on soft leather and quite thin. If spread on any kind of cloth, it does not stick as well nor act as efficiently. Apply it to the part requiring it, and remove it daily, re-sproading it, (the same leather,) with the plaster, and re-applying it, and thus continue until the surface to which it is applied begins to discharge. After this it should be changed as often as two or three times

a day, wiping it quite dry each time before re-spreading the plaster. The active properties of the articles composing this plaster are absorbed into the system, (like all others, "say the poisonous blister so much in use by our regular Allopathic Doctors,) exerting an alterative influence; their peculiar odors may be detected in the excretions.

Compound Lead Plaster or Fire Extractor.

Take Lead plaster, official preparation,	-	9 pounds.
Spirits Turpentine,		3 "
Origanum,		1 pound.
Laudanum,		2 pounds.

Melt the lead plaster and pour in the laudanum, and stir till the spirits all evaporate, set off and cool, and add the other oils and stir till well mixed.

Use.—This is superior to any other dressing for burns, scalds, chilblains, or frozen feet, or any parts; and all affections of the skin, attended with a smarting or burning sensation. Its superiority is especially manifest in this, that except the burn be deep into the flesh, the trouble and pain, and often danger of re-dressing, is avoided, and that it keeps its place on any part. Spread the salve directly on the part affected, with the finger, till it is completely and thickly covered, and then lay over it a bat of raw cotton and let it remain till the injury is completely well. Should the burn be a disorganized one, you must in a day or, remove this and apply the slippery elm powder sprinkled thickly upon the part, or a poultice made of the latter, and treated on general principles.

This is unhesitatingly a specific in all burns and scalds, for I have used this compound in a number of cases, with the very greatest success. The inflammation and pain subsides almost immediately; one application being always sufficient.

POULTICES.—Poultices, or cataplasms, are external applications of a soft or pulpy consistence, and somewhat tenacious, They are of various kinds; some are designed for auscultients, others to produce suppuration; some are refrigerent or cooling, while others are stimulating; others, again, are emollient. In general, poultices are best applied warm or tepid, and they should not be suffered to get dry before they are renewed.

As warmth and moisture are the principal effects of emollient poultices, as an excellent substitute for them is lint, dipped in warm water, and over the diseased part; the lint should be covered with a towel in order to prevent evaporation. The addition of a little lard is useful, if the poultice does not require to be frequently changed. When the object, however, is to

promote suppuration, the poultice should be frequently renewed, in which case the addition of the lard is unnecessary. They should never be heavy nor very bulky, but they should be frequently repeated."

Ulmus Poultice.

Take Slippery Elm bark, *Ulmus fulva*, q. s.
Pulverize and stir it in hot milk or water, to the consistence of a poultice.

Use.—This poultice exceeds every other in point of efficacy. It is of almost universal application, and removes inflammation sooner than any other.

Alkaline Poultice.

Take Ley, rather weak, q. s.
Slippery Elm bark, q. s.
Warm the ley and stir in the bark, until it is of the proper consistence.

Use.—This poultice is useful in inflammation of the breast and other parts; also in felons, whiteswellings, lock-jaw, wounds, fistulas, &c.

Mustard Poultice.

Take Mustard in powder, *sinapis nigra*, 4 ounces.
Soft bread or Indian Meal, 6 "
Vinegar, q. s.

Mix, and make into a cataplasm.

Use.—This is found to be a good application to the soles of the feet in cases of rheumatism, gout, inflammatory diseases, fever, &c.

Currot Poultice.

Take garden carrot roots, *Daucus carota*, - - - - - 1 pound.
Wash them clean, scrape them down to a pulp, and apply.

Use.—These will be found valuable applications to ulcerated sores and swellings, scrofulous sores of an irritable kind, and many other inveterate ulcers, and particularly inflamed buboes.

Indian Turnip Poultice.

Take Indian turnip tops and roots, if green; if dry the roots only, q. s.
Slippery-elm bark, *Ulmus Falva*, - - - - - q. s.

Simmer the former in water, and add sufficient of the latter or bark to form the proper consistence.

Use.—This poultice is used with the best effect in the treatment of scrofula. I think it a good preparation in scrofulous swellings and inflammation.

Ferris's Poultice.

Take garden carrots, scraped, *Daucus carota*, q. s.
Decoction of spikenard-root, *Aralia racemosa*, q. s.
Indian meal or Corn meal, q. s.
Mix and form into a poultice.

Use.—The late Dr. Ferris was in the habit of employing this poultice in cases of inflammation bordering on gangrene or mortification.

Bran Poultice.

Take wheat-bran,	q. s.
Cider or Wine Vinegar	q. s.
Mix and make a poultice.	

Use.—This makes one of the very best poultices in inflammatory rheumatism, gout, &c., and for other inflamed and painful parts.

POWDERS.—Powders are the most similar and natural form in which medicines can be given, as their virtues are not impaired by passing through any particular process. Powders are either simple or compound. In the preparation of compound powders, observe the following rules:

1. Each substance has to be pulverized separately, and the quantity ordered in the prescription then weighed off; otherwise, the due proportion will not be maintained.
2. Pulverize soft substances with those which are the reverse, which will thus serve as an intermedium.
3. Pass all the substances through the same sieve, as this will render them more homogeneous, and will also prevent unnecessary loss. All powders should be put into closely-stopped glass vessels, and kept from the light; otherwise their virtues may be impaired. They may be given in molasses, syrup, tea, water, or any other way.

Compound Powder of May-apple-root, or Anti-Bilious Powder.

Take jalap, Sponea jalapa,	1 pound.
Alexandria Senna, Cassia acutefolia, &c.	2 pounds.
May-apple-root, Podophyllum Paltatum,	1 pound.
Cloves, Eugenia caryophyllata,	2 ounces.

Let the articles be separately pulverized; then mix them.

Dose.—A teaspoonful for an adult. Taken in sweetened water, or any other way, fasting or on an empty stomach.

Use.—This forms the best purgative now in general use, with mildness, and operates throughout the entire length of the alimentary canal, cleansing it and producing a healthy action. It may be given either sexes in all ages. It brings the liver to action, and promotes absorption and secretion, &c.

Beach's Emetic Powder.

Take Ipecacuanha, Cephaelis ipecacuanha,	4 ounces.
Lobelia, Lobelia Inflanta,	4 ounces.
Blood-root, Sanguinaria canadensis,	2 ounces.
Pulverize separately, and mix thoroughly.	

Dose.—A scruple, or half a teaspoonful, given every twenty minutes till it operates, and drinking freely of some herb tea. It should be given in warm water or warm herb tea. If the first or second portions are rejected, continue to give it till vomiting takes place. During its operation, drink freely of herb tea and warm water.

Use.—This emetic is perhaps superior to any other in use. Given in all cases where an emetic is indicated. It is useful in febrile and all other diseases, croup, affections of the liver, stomach, and intestines.

Diaphoretic Powder.

Take Cypripedium pubescens, *Ladies Slipper,	2 drachms.
Camphor, Laurus Camphora,	2 drachms.
Ipecac, Cephaelis ipecacuanha,	1 drachm.
Cream of Tartar, Potassæ bitartras,	1 ounce.

Pulverize each article (very fine) separately, and then mix.

Dose.—Ten grains three times a day, or only at bed time. And as to produce sweating dose five to ten grains every hour, aided by warm teas, as Catnep, Boneset, &c.

Use.—This forms a valuable anodyne, diaphoretic and sudorific. It is beneficially administered in fever, diarrhœa, dysentery, and cholera morbus, and in all cases where an anodyne combined with a sudorific is required. In these diseases it should be given in small doses say from three to five grains every two to four hours. It promotes sweating, without increasing the heat of the body, producing a constant moisture of the skin for a great length of time, while it allays irritation.

Fever and Ague Powder.

Take Salicin, or active principle of willow,	2 scruples.
Cayenne pepper, Capsicum baccatum,	1 drachm.

Mix and divide into twelve equal parts.

Dose.—One of the powders every three hours, in the intervals of the paroxysms. It may be taken in syrup or any other vehicle.

Use.—This is an excellent substitute for the sulphate of quinine.

Red or Styptic Powder.

Take Copperas, Ferri Sulphas, 6 ounces.
Submit it to a red heat in a flame; a decomposition is thus effected, and a red substance formed. This, when pulverized, forms a powder, containing highly astringent properties.

*If the alcoholic extract can be readily got, it may be used instead of the powdered Ladies Slipper, the quantity to the formula, being one drachm, this can be dried and then powdered. Some use the extract of henbane in place of the Ladies Slipper. And others opium. But I prefer the Cypripedin or alcoholic extract of Lady's Slipper.

Use.—It is employed in the treatment of piles, and in hemorrhage. It may be mixed with a little tallow, and introduced up the rectum, for bleeding piles, or which is better than tallow, stramonium ointment. The latter mixed with it makes an excellent repellent for tetter, &c. But repellents are generally objectionable, as before remarked, as they drive in; instead of out, and therefore do not rid the system, but fill up the system with morbid matter. These remedies are very excellent to palliate or to drive one disease into another, but they never cure or expel the cause.

Cephalic Snuff Powder.

Take Blood root, <i>Sanguinaria Canadensis</i>	1 ounce.
Gum Arabic,	1 “
Gum Myrrh,	1 “

Pulverize each separately and mix.

Use.—Snuff of this frequently, this is a most excellent remedy in catarrh of the head, or cold in the head, with stopped up nose, vulgarly speaking, &c., &c.

Thomson's "Woman's Friend."

Take poplar bark, <i>populus balsamifera</i> ,	5 pounds
Unicorn, <i>aletris ferimosa</i> ,	$\frac{1}{2}$ “
Cinnamon, <i>lauries cinnamomum</i> ,	$\frac{1}{2}$ “
Golden seal, <i>hydrastis canadensis</i> ,	$\frac{1}{2}$ “
Cloves, <i>engenia caryophyllata</i> ,	$\frac{1}{2}$ “
Cayenne pepper, <i>capsicum baccaum</i> ,	4 ounces
White sugar, <i>saccharum alba</i> ,	8 pounds

Let them all be made fine and well mixed.

Dose.—A tea-spoonful may be taken in a gill of hot water.

Use.—This is an excellent article in female weakness, to prevent abortion, and to be used at the cessation of the menses.

Labstein's Fever Powder.

Take gum camphor, <i>laurus camphora</i> ,	1 grain
White sugar, <i>saccharum alba</i> ,	10 “

Mix, and divide into twelve powders.

Dose.—One powder every three hours.

Use.—Given in cases where the tongue is very much parched.

Compound Sulphur powder.

Take flowers of sulphur, <i>sulphur sublimatum</i> ,	$\frac{1}{2}$ ounce
Cream of tartar, <i>potassæ bitartras</i> ,	1 “

Mix with molasses.

Dose.—A tea-spoon full four or five times a day, for children.

Use.—This powder is employed in piles, and in cutaneous affections and eruptions.

Medical, or Root-Beer Powder.

Take sassafras root, laurus sassafras,	4 ounces
Burdock root, arctium lappa,	4 "
Spice wood, benzoin odoriferum,	4 "
Spruce bark, pinus nigra,	4 "
Hops, humulus lupulus,	1 "
Ginger, amomum zingiber,	1 "
Water,	gallons

Boil for two hours, strain, and add half a gallon of cold water; when blood-warm, add one pint of good yeast, and let it ferment for six hours; strain and bottle for use.

Dose.—To be taken freely.

Use.—This forms an excellent cool drink for purifying the blood.

Burnt Sponge Powder.

Take common sponge cut fine, spongia officinalis,	1 ounce
Bayberry, myrica cerifera,	1 "
White sugar, Saccharum alba,	1 "

Mix, put into a crucible and cover with plaster of Paris, leaving an aperture for the escape of the steam. Put it in the fire, cover with coals, and let it remain for half an hour, then take it out, and pulverize.

Use.—This makes a very good powder for chancres, to be applied once or twice a day.

SALVES.—Salves are medicines of proper consistence for spreading on linen or muslin, designed for external use, resin or oil, with some remedial agent, either vegetable or some of the metallic oxydes, such as red lead. They require to be made of a little harder consistence for summer than winter, which may be done by adding or diminishing the quantity of oil used. Salves designed for ulcers should be renewed about twice a day.

Black Plaster, or Healing Salve.

Take olive oil, olea europœa,	3 quarts
Common resin, pinus palustris,	3 ounces
Bees wax,	3 "

These articles must be melted together, and raise the oil nearly to the boiling point; then gradually add of pulverized red lead two and a quarter pounds, if it be in the winter; if in the summer, two and a half pounds. In a short time after the lead is taken up from the fire, and when nearly cold, add half an ounce of pulverized camphor. It should remain on the fire until it forms a proper consistence for spreading, which may be known by dipping a spatula or knife into it from time to time, and suffering it to cool.

Use.—We have found this elegant salve superior to every other, where applications of this kind are required. It has an excellent effect in burns, scrofulous, fistulous, and all other ulcers. It should be thinly spread on a piece of linen, and renewed once or twice a day. BEACH.

SINAPISMS.—Sinapisms and other stimulating draughts, are employed with the same intention as the common blister to produce counter-irritation; and they often give relief very speedily in internal pains and inflammation. Mustard is by far preferable to blisters.

Mustard Sinipism.

Take mustard, sinapis nigra,	.	.	q. s.
Rye, Indian, or oat meal,	.	.	“
Vinegar,	.	.	“

Mix, and form it into a proper consistence.

Use.—This plaster answers all the purposes of a blister without its being attended with any of the distressing effects which generally result from the application of the latter. They are very beneficial, applied to the feet, in causing revulsion, or to equalize the circulation; hence, they are useful in fevers, inflammation, &c. In severe cases, the pure mustard with vinegar may be applied.

Garlic and Onion Sinapism.

Take garlies or onions raw, allium sativum, allium cepa, q. s.
Bruise well and apply.

Use.—This is useful in the same diseases as the preceding, in inflammation of the lungs, &c.

Poke Sinapism.

Take poke root, phytolacca decandria, q. s.

Scrape it fine, and apply in the raw state, or it may be previously simmered in vinegar for a short time.

Use.—A good revulsive applied to the sores of the feet and other parts to relieve pain. BEACH.

SYRUPS.—Syrups are liquids containing the properties of certain vegetables in a very concentrated state. They are prepared by making a strong tincture, purging off the tincture, and add sufficient soft boiling water to the ingredients that will swell over them, and then simmer them till the strength is all extracted; then strain, and add the decoction and tincture together, and simmer till the alcohol and watery portion is nearly evaporated; then adding a sufficient quantity of clarified sugar to prevent fermentation.

Syrups, especially those containing the juice of fruit, should be bottled while hot, and when cold, well stopped and sealed; and these, as well as all other kinds, should be kept in a temperature not exceeding 60 degrees Fahr.

Alterative Syrup.

Take American Sarsaparilla, sliced, or Smilax

Sarsaparilla,	6 pounds.
Guaiac-wood, rasped, Guaiacum officinale,	3 “
Sassafras-bark, Laurus Sassafras,	2 “
Elder-flowers, Sambucus canadensis,	2 “
Burdoek-root, or seed, Arctium lappa,	3 “
Yellow Dock, bruised, Rumex crispus,	3 “

To the above articles when bruised, add diluted alcohol or common spirits sufficient to immerse them; digest a moderate heat for ten days; filter the liquor or tincture, and set aside. Add eight gallons of pure soft water, and gently simmer* to four gallons, filter again and mix the liquor or tincture, to the decoction, and simmer again till four gallons remain; then add thirty-two pounds of white or clarified sugar, and simmer till the sugar has dissolved, skim it, and then put the syrup into new or clean bottles, and cork and seal tightly.

Dose.—A wine-glassful or less three times a day, (on an empty stomach or before meals,) after having cleansed the stomach.

Use.—We employ this syrup extensively in all cases where there is impurity of the blood, and find it better than any other. It is most excellent in venereal, scrofulous, cutaneous diseases, ulcers, mercurial rheumatism, &c.

Vegetable Syrup.

Take Liver-wort, Hepatica triloba,	1 pound.
Solomon's Seal, Convolvulus multiflora,	1 “
Skunk-Cabbage, Ictodes foetida,	1 “
Blood-root, Sanguinaria canadensis,	½ “
Water-Horehound, Lycopus virginiana,	1 “
Water,	q. s.

Boil till the strength is extracted; then pour off the liquor, strain, and simmer down to twelve quarts. Add twenty pounds of strained honey; remove from the fire, and add one pint of brandy; let it settle, and bottle for use.

Dose.—A wine-glassful three or four times a day.

Use.—This preparation is employed in every variety of pulmonary disease, and particularly in bleeding from the lungs, and in asthmatic affections. This formula was procured (by Dr.

* The water bath is preferable to evaporate spirits and liquids. Say place the vessel where the ingredients are in, into an iron pot of boiling water, and in that manner evaporate the liquid.

Beach,) from the late Dr. Lawrence, an excellent botanist, and chief physician and surgeon of the society of "Shakers," at Lebanon, New York.

Scrofula-Syrup.

Take Yellow-Dock root, *Rumex crispus*, . . . 2 pounds.

Bark of Bitter-sweet-root, *Solanum dulcamara*, 2 "

Bruise and boil till the strength is extracted; then strain and simmer down to two gallsens. Add sugar sufficient to prevent fermentation.

Dose.—A wine-glassful three times a day.

Use.—This syrup is beneficial in scrofula and herpetic affections, or tetter. BEACH.

Syrup for the Dysentery.

Take Rheubarb, *Rheum palmatum*, . . . 2 ounces.

Wild-Cherry bark, *Prunus virginiana*, . . . 2 "

White Sugar, *Saccharum alba*, . . . 1 ounce.

Simmer and while in Water.

Dose.—Give a teaspoonful every fifteen minutes, until the pain ceases. Make it fresh every day, and add a little brandy.

Use.—This is an infallible remedy for the dysentery, never having failed in thirty years practice. "INDIAN PHYSICIAN."

Syrup for Scrofula, Salt-Rheum, Tetter, &c.

Take Yellow Dock, *Rumex crispus*, . . . 2 ounces.

Spikenard, *Aralia racenosa*, . . . 2 "

Pipsissewa, *Chimaphila umbellata*, . . . 1 ounce.

Virginia Snake-root, *Aristolochia serpentaria*, 1 "

Bruise all the ingredients, and add two quarts of boiling water and one pint of cider-spirits; simmer down to one quart, strain and press; then add two pounds of clarified sugar; boil about five minutes, strain, bottle, and seal.

Dose.—From one-half to a wine-glassful, morning, noon, and night, employing as an outward application the following ointment:

Take Hog's Lard, . . . 3 pounds.

Peppermint, pulverized, *Mentha piperita*, 4 ounces.

Melt the lard and mix the powder thoroughly over a slow fire, and then add three ounces of bees-wax to harden.

Use.—The affected parts should be annointed three or four times a day, and the salve spread on linen rags to be applied to sores or ulcers. This is a highly esteemed medicine. VERE.

Blackberry-Syrup.

Take juice of Blackberries, *Rhus occidentalis*, 20 ounces.

White Sugar, *Saccharum alba*, . . . 3 pounds.

Mix, simmer and strain.

Dose.—A wine-glassful four or five times a day.

Use.—This forms a beautiful syrup or cordial, and is very useful in dysentery, and bowel complaints in general.

Compound Ipecac Syrup.

Take Ipecac, Euphorbia ipecacuanha, . . .	1 ounce.
Blood-root, Sanguinaria Canadensis, . . .	1 “
Lobelia, Lobelia inflata,	1 “
Cider-Brandy,	1 pint.

Bruise the ingredients, add the brandy, and let it stand for a few days in a warm place to digest; then strain and press; add water to the roots and boil, and thus extract all the strength; evaporate to one pint; strain and add one pound of white sugar; again reduce to one pint, remove from the fire, and add the medicated spirits to the syrup.

Dose.—For a child one year old, one or two teaspoonfuls, given pure, repeated occasionally, or as often as may be necessary.

Use.—This forms the best remedy for hooping-cough, colds, and all diseases where expectorants are required. Useful in croup, &c. B.

Anthelmintic Syrup, or Worm Syrup.

Take Alexandria Senna, Cassia acutifolia, &c.	2 ounces.
Male Fern, Aspidium Filix-mas,	2 “
Carolina Pinkroot, Spigelia marilandica,	2 “
Peach-leaves, Amygdalus americana,	1 ounce.

Reduce these to coarse powder, and then add—

Soft water,	1 pint.
Alcohol,	1 “

Let it stand in a closely-stopped glass vessel for two weeks; then submit the whole to a water-bath gentle heat six hours, and decant; add one pint of pure water and half a pound of loaf-sugar, and evaporate to one quart.

Dose.—For a child six years old, one teaspoonful four or five times daily, given in a little cold sage-tea; proportionate doses for older or younger patients.

Use.—This is one of the safest and most effectual remedies for worms in children that can be administered; diet spare, and merely brown bread and water-drinking. This daily repeated for a week or so, will expel the worms if any are present, and give tone to the alimentary canal.

Sarsaparilla Syrup.

Take Sarsaparilla, sliced, Smilax sarsaparilla,	15 ounces.
Boiling water,	1 gallon.
White Sugar, Saccharum alba,	15 ounces.

Macerate the sarsaparilla in the water, for twenty-four hours, and boil down to two quarts; then strain, add the sugar, and evaporate to a proper consistence.

Dose.—A wine-glassful three or four times a day.

Use.—This syrup is employed as a beneficial alterative, and is also an excellent purifier of the blood.

Syrup of Rhubarb.

Take rhubarb, bruised, <i>Rheum palmatum</i> ,	2 ounces
Boiling water,	1 pint
Macerate for twenty-four hours and strain; then	
add white sugar, <i>saccharum alba</i> ,	2 pounds

Form a syrup.

Dose.—For young children, from one to two fluid drachms.

Use.—This preparation forms a mild cathartic or physic.

Blood Root Syrup.

Take blood root, bruised, <i>sanguinaria canadensis</i> ,	1 pound
Water,	1 gallon
White sugar, <i>saccharum alba</i> ,	5 pounds

Extract the strength by leeching or with a water bath; then simmer down to three quarts, and add the sugar. Boil a few minutes to form a syrup.

Dose.—A table-spoonful three or four times a day.

Use.—This makes a beautiful red syrup, which is very valuable in bronchitis, hepatitis chronic, and pulmonary affections.

TINCTURES.—Tinctures are certain active ingredients, principally vegetable substances, which are imparted to alcohol spirits of wine. Tinctures are excellent for administering a great variety of medicinal agents; but, in some cases, there may be an objection to them in consequence of the spirits which they contain. Substances yield their virtues more readily to spirits by the aid of heat. All tinctures should be digested in a warm place; and when the spirits has remained on the substance for the directed period, it should be decanted instead of being left, as is too often the case, standing on the dregs until it is used. This neglect has often been followed by bad consequences.

Hydragogue Tincture.

Take elder bark of the root, <i>sambucus canadensis</i> ,	1 pound
Good wine,	1 gallon

Let it simmer for an hour; then strain and bottle.

Dose.—A wine-glassful three or four times day.

Use.—This tincture is usefully administered in dropsical affections, particularly in ascites, or abdominal dropsy. It has cured many without any other ingredient. BEACH.

Tincture of Gum Myrrh.

Take gum myrrh, pulverized, balsamodendron myrrha, 1 ounce
 Alcohol, 1 pint
 Mix.

Dose.—One or two tea-spoonsful three or four times a day taken in motherwort tea.

Use.—This and the tincture of castor are combined in equal parts, and given in obstructed menses. Externally it is used for sore gums.

Tincture of Lobelia.

Take lobelia, pulverized, lobelia inflata, 4 ounces
 Proof spirits, 2 quarts

Let it stand for a week, and then filter.

Dose.—From a tea-spoonful to a table-spoonful as an emetic. It must be repeated every fifteen or twenty minutes, &c.

Use.—This tincture is an excellent remedy in the treatment of asthma, croup, and pulmonary affections, and is given in lock-jaw and cases of poisoning. It is also good as an excellent application in piles, in inflammatory and cutaneous diseases and in tetter. It is likewise extremely valuable, given in injections for strangulated hernia and bilious colic.

Anodyne Tincture.

Take the pollen of hops, humulus lupulus, 1 ounce
 Alcohol, spiritus rectificatus, 1 pint
 Macerate for some time and filter.

Dose.—From one to two tea-spoonfulls, to be taken in milk.

Use.—This preparation is useful to allay the after-pains of child-birth, and in cases where opium cannot be administered.—
 BEACH.

Elixir Salutis, or Compound Tincture of Senna.

Take alexandria senna, cassia acutifolia, &c., 2 ounces
 Jalap, convolvulus jalapa, 1 “
 Fennel seed, faeniculum vulgare, ½ “
 Proof spirits, or best brandy, 2 quarts

Let it stand for one week and strain.

Dose.—One fluid ounce.

Use.—This preparation is a mild but effectual purgative. It forms an excellent physic, particularly of children, operating mildly but effectually, cleansing well the stomach and bowels, and is withal very pleasant to take.

Tincture of Cohosh.

Take black cohosh root, macrotys racemosa, 3 ounces
 Proof spirits or wine, 1 quart

Let it stand for a week.

Dose.—A small tea-spoon full three or four times a day.

Use.—It is beneficial in obstinate coughs, rheumatism, and impurity of the blood; also in obstructed menstruation, fluor albus, and other uterine affections.

Expectorant and Anti-Spasmodic Tincture.

Take blood root, sanguinaria canadensis,	.	1 ounce
Lobelia seeds, lobelia inflata,	.	1 "
Ipecac, cephaelis ipecacuanha,	.	1 "
Wine, metheglin, or spirits,	.	3 pints

Let it stand for one week. When taken, mix with water.

Dose.—A table-spoonful twice a day, or as often as may be necessary.

Use.—This tincture is useful in inflammation of the lungs, in pleurisy, hooping cough, consumption, &c., and when there is any difficulty of expectoration.

Sudorific Tincture—Sweating, or Red Drops.

Take ipecac, cephaelis ipecacuanha,	.	2 ounces
Saffron, crocus officinalis,	.	2 "
Camphor, laurus camphora,	.	2 "
Virginia, or small snake root, aristolochia Serpentaria	.	2 "
Ladies slipper, cypripedium pubescens,	.	4 "
Holland gin, or Jamaica spirits,	.	3 quarts

Let it stand for two weeks, and filter.

Dose.—One tea-spoonful given in a tumbler of catnep tea every hour or two till it produces perspiration or sweating.

Use.—This medicine is probably unsurpassed in fulfilling the indication for which it is given, which is generally to produce perspiration. One or two doses, aided by warm infusions and bathing the feet, cause a copious sweating, and at the same time it is almost sure to relieve pain. Hence it is useful in a variety of diseases: in pleurisy, fever, inflammation, &c., I know of no medicine so certain in its operation. I have also used these drops with the very greatest success in cholera-morbus and a variety of diseases, where sweating is indicated.

Wine Tincture.

Take Pine Peruvian Bark, Cinchona officinalis,	.	2 ounces.
Wild Cherry bark, Prunus Virginiana,	.	1 "
Cinnamon, Laurus cinnamomum,	.	1 drachm.
Cloves, Eugenia caryophyllata	.	1 drachm.
Nutmeg, Myristica moschata,	.	1 drachm.
Sulphur, Sulphur sublimatum,	.	1 ounce.
Wine,	.	2 quarts.

Let it stand a sufficient time to extract the strength.

Dose.—A wine-glassful every two or three hours.

Use.—We have found this tincture an almost infallible cure for intermittent fever or fever and ague, after suitable evacuations. I have used this tincture where all other means had been made use of (by the old school men), and cured it permanently I might say.

Anti-Spasmodic Tincture.

Take tincture of Lobelia, <i>Lobelia inflata</i> ,	1 pint.
Tincture of Cayenne pepper, <i>Capsicum baccatum</i> ,	1 “
Compound Tincture of Lady’s Slipper, <i>Valeriana</i> ,	
<i>officinalis</i> ,	3 gills.

Mix and bottle for use.

Dose.—From a teaspoonful, to a tablespoonful, in a gill of water or herb tea; to be given every twenty minutes.

Use.—Some pronounce this a specific remedy for fever and ague. Giving a teaspoonful just before the cold stage of the disease, repeating the dose every twenty minutes until nausea or vomiting take place. It is also excellent for fits, spasms, and all violent attacks of disease; and in suspended animation from drowning, hanging, lightning, or any other cause; likewise recommended in cases where poisonous substances have been taken.

Compound Tincture of Lady’s Slipper or Valerian.

Take Skullcap, <i>Sculletaria lateriflora</i> ,	4 ounces.
Yellow Lady’s Slipper, <i>Cypripedium pubescens</i> ,	4 “
Best French Brandy,	1 quart.

Bruise the plants and add to the brandy.

Dose.—From a teaspoonful to a tablespoonful occasionally, in sweetened water.

Use.—This tincture is beneficial in all nervous diseases, as neuralgia, hysteria, &c.

Tonic Mixture.

Take old Cider,	4 gallons.
White-oak bark, <i>Quercus alba</i> ,	10 ounces.
Horseradish-root, <i>Cochlearia armoracia</i> ,	1 pound.
Seneka Snake-root, <i>Polygala senega</i> ,	6 ounces.
Lady’s Slipper, <i>Cypripedium Pubescens</i> ,	6 “
Golden-seal root, <i>Hydrastis canadensis</i> ,	4 “
Cayenne pepper, <i>Capsicum baccatum</i> ,	2 “

Bruise all fine, and add the cider; let it be shaken up every day for eight or ten days.

Dose.—For an adult, half or two-thirds of a wine-glassful three times daily, before meals; for children according to their age.

Use.—A sure remedy for intermittent fever, debility, and an impoverished state of the blood. It is also an excellent remedy in obstructed menses, dropsy, worms, &c.

Tincture of Capsicum.

Take Cayenne pepper, *Capsicum baccatum*, 1 ounce.
 Best French Brandy. 1 pint.
 Mix and digest.

Dose.—From one-half to a teaspoonful, in sweetened water.

Use.—It is excellent for cholera, colic, pain in the stomach and bowels, cold and languid circulation, &c.

Tincture of Blood-Root.

Take blood-root, bruised, *sanguinaria canadensis*, 1 ounce.
 Cider Brandy or Whisky, 1 pint.
 Mix, put it in a warm place, and digest for a week; then filter.

Dose.—From one half to a teaspoonful three times a day, taken in honey or sugar. In bleeding at the lungs, it may be administered every two hours until nausea or sickness of the stomach is produced.

Use.—This preparation is very valuable in pulmonary diseases, and particularly in bleeding at the lungs.

Tincture Guaiacum or Cholera Mixture.

Take Guaiacum, Cloves, and Cinnamon in powder,
 of each 1 ounce.
 Brandy, 2 pints.
 Macerate for fourteen days, and filter.

Dose.—From a teaspoonful to a tablespoonful, in sweetened water, every fifteen or twenty minutes, until relief is obtained.

Use.—This tincture was extensively used in Cincinnati, by the eclectics, during the cholera of 1849-50-51, and with excellent effect.

Compound Tincture of Black Cohosh.

Take Tinctures of Black Cohosh and Blood-root,
 of each 4 ounces.
 Tincture of Poke, 1 "
 Mix together.

Dose.—A fluidrachm or teaspoonful every two or three hours.

Use.—This is a valuable alterative and expectorant, and appears to exert a specific influence on the lungs, rendering the breathing easy, diminishing the frequency of the pulse, and the general excitability of the system. Used in spitting of blood and other pulmonary affections.

Compound Tincture of Myrrh.

Take of Gum Myrrh, 8 ounces.
 Cayenne pepper, 2 ounces.
 Add alcohol one gallon, and macerate for ten days. Used externally.

Tincture of Poke.

Take poke berries, <i>phytolacca decandria</i> ,	8 ounces
Diluted alcohol,	1 quart

Macerate for fourteen days and filter.

Dose.—A drachm or tea-spoon full, &c.

**Compound Tincture of Tamarac, or Bone's Bitters.*

Take tamarac bark,	6 ounces
Juniper berries,	6 "
Prickly ash bark,	4 "
Wild cherry bark,	3 "
Seneca snake root,	3 "
Tansy,	1 "

Let these articles be coarsely pulverized and mixed together. To this mixture add three pints of whiskey, and let it stand twenty four hours; then place in a water bath and extract the strength; filter. And to this add one pint and a half of molasses, and one ounce and a half of the alcoholic extract of may apple root, which must be thoroughly dissolved.

Dose.—Half a fluid ounce or a table-spoonful three times daily, about an hour before each meal.

Use.—It forms an excellent alterative tonic and aperient for dyspepsia, menstrual obstructions, &c., &c.

Tincture of Prickly Ash.

Take of prickly ash berries,	8 ounces
Diluted alcohol,	2 pints

Macerate for fourteen days, express and filter.

Dose.—In cholera, dose is from one to four ounces, repeated as often as required; in ordinary cases from one to four tea-spoonful.

WASHES.—Washes, or lotions, are certain liquids in which are suspended medicinal agents, and are designed principally for external use. They may be used as mere fomentations to soothe pain and remove inflammation, as a mode of introducing medicinal substances into the system, or as revulsive agents, according to their nature and composition.

Ophthalmic, or Cooling Wash.

Take borax, sodæ boras,	1 ounce
Rain or spring water,	1 quart

Mix and let it stand for twelve hours.

* NOTE.—Tinctures are preferable by scalding the ingredients with pure soft boiling water, previous to adding the spirits,—say just enough water to cover them; and at the same time while scalding, cover tightly to prevent evaporation.

Use.—This forms a very cooling and useful wash for all kinds of inflammation, particularly of the eyes; also for sore and inflamed nipples, canker, and sore mouth and throat. It may be applied freely and often.

Herpetie Wash.

Take poke root, phytolacca decandria,	1 ounce
Lobelia, lobelia inflata,	1 “
Yellow dock, rumex crispus,	1 “

Pulverize, and add a table-spoonful of powder to a pint of spirits.

Use.—This is employed in bathing for eruptions of the skin. Apply often.

Alkaline Wash.

Take weak ley made of hickory ashes, or, as a substitute, a tea-spoonful of saleratus to one quart of rain water.

Use.—These washes are remarkably efficacious in fevers, by bathing the surface often with them. Extraordinary benefit attends this practice, equal if not superior to that resulting from the administration of internal medicine. BEACH.

Astringent Wash.

Take hemlock bark, dried, pinus canadensis,	1 ounce
Sumach root bark, rhus glabra,	1 “
Witch hazel bark, hamamelis virginica,	1 “
White oak bark, quercus alba,	1 “

Mix, and make a strong decoction.

Use.—This is a useful preparation to inject in fluor-albus, and also to wash the parts in falling of the bowel and womb.

Lobelia Wash.

Take lobelia herb, lobelia wash,	1 ounce
Boiling water,	1 gill
Spirits, spiritus tennior,	1 “

Let it stand for one week, and strain.

Use.—It may be applied to inflamed and sore eyes, erysipelas, tetter, &c.

Muriatic Acid Lotion.

Take muriatic acid, acidum muriaticum,	1 ounce
Water,	16 “

Mix.

Use.—Recommended as a wash for chilblains, and in cases of leprosy and other cutaneous diseases.

Walnut Lotion.

Dissolve extract of green walnut shells, six grains; in distilled or soft water, fifty grains.

Use.—Used in enlargement of the tonsils. Applied with a camel's hair pencil, and is very prompt in its effects.

Sassafras Lotion.

Take of pith of sassafras, 1 ounce
Rose water, $\frac{1}{2}$ pint

Mix.

Use.—Used in acute ophthalmia or inflammation of the eyes.

EPHRATA ECLECTIC INSTITUTE.

THIS Institute is independent of Mr. Joseph Konigmacher's Establishments. All diseases are treated on the general principles laid down. All diseases are here cured, but not all degrees of disease.

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For further particulars, address S. M. LANDES, M. D., Proprietor and Physician, Ephrata, Lancaster county, Pa.

* This work is for Sale at Ephrata by the author, and can be sent any distance, (by advancing the money, which is \$3,50) for a trifle. All letters must be prepaid.

[The text on this page is extremely faint and illegible. It appears to be a list or a series of entries, possibly a table of contents or a detailed index, but the specific words and numbers cannot be discerned.]

1979

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Hydragogue, do.	321	Rheum, Tetter, &c.,	334
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Pills,	320	Anthelmintic, or Worm do.	335
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