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THEORY OF PATHETISM.

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I.

Consciousness.

CONSCIOUSNESS is the foundation of all knowledge, and it may be divided into two degrees or *kinds*, both of which are *inate* in living organisms.

I. The first, and highest *consciousness* is the knowledge which the mind takes of itself, and the power by which it distinguishes between itself and the objects of its knowledge: *knowledge* is the conscious perception of the nature and relations of things. The *functions* of consciousness and knowledge appertain to the *highest NERVOUS ORGANISMS* of living bodies; and are usually excited by agencies operating upon them through the *external senses*.

The highest degrees of *consciousness* and *knowledge* appertaining to *animal* existence, are manifest in the *HUMAN SPECIES*, where, also we find the highest developments of *nervous organisms*.

Consciousness may exist in various degrees, in different persons, and in different degrees in the same person at different times, according to the size of the brains, and the proportionate size and activity of the different mental organs. It exists in the highest degree in those brains where the cerebral developments are the nearest to perfection as it regards the *size* and *quality* of the nervous matter. It is, therefore, evident that *knowledge* must be highest in those brains that are of a determinate size, and which have been excited sufficiently with a healthy action. We must, hence admit the *competency* of such minds, when in a normal waking state, to judge of any given proposition whether it be true or false, and also what *mind* or class of minds, as a general rule, it is the most safe to follow:

1. The brains should be perfectly developed, that is, all the organs should correspond in their different degrees of power.

2. They must have been sufficiently exercised, or educated. The person must have had the necessary opportunities for information upon the subject for which his opinion is to be taken, and he must have made use of them.

3. He must be free from all those *associations* which would have a tendency to prevent a just and accurate judgment.

4. His brains and all his organs must be in a healthy condition.

II. The second kind of *Consciousness* is manifest in the spontaneous action of the *nervous functions*, without observation or experience, which constitutes *INSTINCT INTUITION* or *Clairvoyance*.

II.

Mind—Soul—Spirit.

Mind, Soul or Spirit are synonymous terms and signify the aggregate of all the *functions* of the *nervous system*. Hence, *mind* is neither material or immaterial, but *functional*. *Mind* is excited, drawn out, nurtured and manifested through the external senses, and when either of these senses is wanting, in so much the mind itself is wanting. Mental manifestations depend upon the *qualities, size, composition, developments, age, and conditions* of the *cerebral system*, including the external senses. The organisms peculiar to *MIND*, are located in two distinct brains, and are made up of a congeries of groups, the exercise of whose *FUNCTIONS* constitute *thought* and all the *sensations, emotions, conceptions*, and feelings common to animals and to men.* And thus, while

* The best work on *PHRENOLOGY*, which teaches the science of the mind, is that by George Combe, the greatest of mental philosophers living. With the exception of the immortal Gall, to no one person is the world so much indebted for an exposition of the true science of the mind, as to Mr. Combe. And his *Phrenological* writings, together

we become conscious of the *connection* between the mental functions, by which they constitute one *aggregate*, we perceive and act upon the reality of our own *personal identity*, though some of the faculties in both of the brains, may and often do, (especially in cases of disease) act independently of each other.

There are just as many *mental susceptibilities* and *FACULTIES* as there are *functions* in the combined *nervous organisms*. The organs purely *mental* exist in corresponding pairs and groups in both brains, and the functions of some *antagonise* each other as may be seen in the *alternate* exercise of *Combativeness and Sympathy*; *Firmness and Submission*; *Adhesiveness and Aversion*; *Love and Hatred*; *Joy and Grief*; *Destructiveness and Conservativeness*, &c. &c.

III.

Animal Life—Functions—Susceptibilities.

The essential nature of *Animal Lives*, it may not be possible for the human mind to comprehend. Life is manifested from certain *associations*, and it controls matter, suspends the laws of chemical affinity, and extends its power over each of the imponderable fluids, known under the terms of Magnetism, Electricity and Galvanism. It carries on a *series of revolutions* in the *animal and mental economy* which correspond with the *alternative forces or states* of everything else in *nature*. Hence we have the *alternations* of the "Breath of Lives," by which "Man became a living soul."* The air in breathing, generates the *heat* which, by expansion, produces the circulation of blood. The action of the blood on the lining membranes of the heart, excites the alternate expansion and contraction of that organ, by which its valves open and shut for the passage of the blood *back and forth* through the system. In this way the current of the blood is *assisted*, the same as the *waves* may assist in the passage of a stream of water. The application of cold air to the surface of the body, assists in driving the blood *again* through the veins, and in these *alternate conditions of motion and rest, cold and*

with his "Constitution of Man," and "Moral Philosophy" should be read and studied by all who would make any proficiency in anthropology. Much has been published on Phrenology in this country, of late and many discoveries are *said* to have been made, correcting the labors of Gall, Spurzheim and Combe; but I have seen nothing of this kind which is worth a moment's attention from any one.

* Genesis 2: 7.

heat, sleep and wakefulness, life and death; we have a perfect correspondence with the other phenomena of nature, and the constitution of things.

Life, together with the *associations* which constitute the *nature of things*, give to the nervous system in every case its determinate *size, qualities*, and consequent *powers*. And with the *quantity* of the *grey nervous matter*, and the comparative size of the different cerebral organs, (other things being equal,) the *mental or intellectual power* and manifestations, will, invariably be found to agree.

IV.

Nervous Energy.

The essential nature of the nervous energy, the mind may not have any faculty for comprehending any more than it has for knowing what *life* is. It is a *functional power* supplied by the *vital forces*, and is modified, increased, or diminished in the system or its various parts, by the air, food, cold, heat, light, darkness, sound, color, odor, bodily and mental exercise, associations, and in a word, by everything in *nature*, real or imaginary, which may be brought in contact with the body, or occupy the mind. Impressions are conveyed by vibrations from one nerve to another, through the various associations between the different nerves, ganglia, and the parts which they supply.

V.

Health—Disease.

When the due amount of *nervous energy* is communicated at the proper time, the heart dilates and contracts regularly; the voluntary and other muscles obey without obstruction, the several wants of the various organisms, which call them into action.—The various secretions are made at the proper period, the vital forces predominate in their tendencies to preserve all parts of the system against the destructive power of oxygen which *tends* to break them down, and thus the balance of power is duly maintained between the *breathing, circulating, assimilating, absorbing, and excreting* functions. This we call a state of perfect health.

Disease is a disturbance in the nervous energy; when more or less is communicated to any part than is necessary to supply the natural wants of the system, the circulating, assimilating, absorbing and excreting processes are interrupted, and inflammation, or congestion ensues: one part is wasted for the want of a due supply, and an other is enlarged with unhealthy deposits. The

temperature is now increased or diminished, and hence as health consists in a regular series of alternating conditions or motions, each embracing a special period of time, so disease in all cases, must be nothing more nor less than an increase or diminution of the amount of the same motions or conditions, and is universally alternative with a period of comparative health. And the amount of motion or temperature makes the difference in chronic or acute diseases.

VI

Intuition—Clairvoyance—Instinct.

When either of the moral or intellectual organs are constituted with a certain amount of the grey nervous matter and reach a determinate size, the knowledge appropriate to those faculties is intuitive, and but little or no mental labor is necessary for its acquirement.* A purely instinctive action is not determined by experience or observation; it is perfect, and not susceptible of any improvement. The instinctive power in man is (in the acquisition of knowledge) superseded by the development of the intellectual faculties, through the external senses. But in certain states of the nervous system when the external senses are suspended, this power becomes active, and is then what is denominated clairvoyance. Some mental actions are of a mixed character, combining something of instinct and the exercise of the mind through the external senses.

The first and highest susceptibility, short of consciousness, is that quality of living organisms which is operated on by the appropriate agencies, when they are excited to action; as that quality of the optic nerve which is affected by light, and by which we become conscious of the presence and nature of objects. It is in the stomach, and affected by food; in the ear and affected by sound. And in the different organs of the living body which renders them susceptible to changes, from the relations which exist between them, or from certain external agencies.

Each of the external senses are conditioned upon that quality of the nervous system which gives the sense of feeling. It is the foundation of instinct and consciousness, and, hence, when either sight or hearing, taste or smell, are suspended or inactive, as in somnambulism, catalepsy and trance, this sense, so generally diffused over the system, becomes highly exalted and acts for each of the others. In this may we account

* Thus we account for prodigies, such as Zera Colborn, Elihu Burritt, Ole Bull, Veux Temps, Sivori, Swedenborg, and others.

for presentiments and prophetic dreams; and by this power somnambulist are often able to distinguish the nature and the difference in objects.

VII.

Temperaments.

The degrees in which we find the different qualities of the nervous matter, apportioned in each system, together with the qualities and quantities of the fluids, muscles, bones, and the digesting, circulating, absorbing, and breathing organs determine what we call the temperament or idiosyncrasy, in each case. From this it will be seen that there may not be any two persons of precisely the same temperament, and the reasons, also, why one person is more easily affected from any given cause than another.

VIII.

Mental Influence.

The influence which one person or thing may have upon another, depends upon the temperaments or the constitution of man, and the nature of things. In chemistry, certain results follow the association of two known properties, as an acid and alkali.—But no two minds may be constituted precisely alike. That is, there is a difference in their temperaments, the fluids, the nerves and muscles of no two persons, may be apportioned just alike. Hence no two are precisely alike in the different degrees of their different susceptibilities. Each has the same number of mental organs, but in their qualities, maturity, size of the organs, education, and many other things which go to make up the idiosyncrasy of each person, there will be a variety of differences, which tend to make them unlike, and give one an influence over the other. It is from these contrarieties that, as a general thing, the two sexes have more power over each other, than either can now have over another of the same sex. From this may be seen upon how many different considerations does the influence which one mind has over another, depend. The comparative size of the brains, the size of the different organs, the views of the person, the skill, tact, intelligence, firmness, time, place, circumstances, motives, and many other things are to be taken into the account before it can be determined how much power one mind would be able to exert over another.

IX.

Associations.

Minds affect each other by associations. By establishing an agreeable association or

relation between two persons, the mind of one may thereby control the susceptibilities of the other; or by applying the hand of one to any part of the other, different mental and physical changes may be produced. Hence it follows that the only influence extended from one mind or body to another, depends upon the kind of relation established between them, and the same is true with regard to any influence felt by the living body, from any other cause.

Associations are often formed and controlled by the mind, between itself and real or imaginary things or beings; so that the mind, and consequently the nervous system, is affected one way or another by the views or the belief entertained of persons or things. When the mind has been once impressed with an anticipation of an influence from any cause, it takes cognizance of this law of association, and in cases of high susceptibility, it does sometimes either create, or transfer it from one substance or agent to another; and hence the system is affected precisely according to the anticipations of the mind, and not according to the real qualities of those things to which the association has been transferred.

A peculiar association or connection between two minds or two functions which are not precisely alike, produces a positive or sympathetic relation, by which one mind affects the condition of the other. When the mind or organs are precisely alike, the relation is negative and no results are produced except a state or feeling of antipathy, and when two minds, bodies, or substances are brought together which do not come up to a certain degree of difference, in quality or functions, a neutral relation, or a state of apathy, is the result.

Where the association between two different nervous organisms, is sufficiently strong, one may become lost in the susceptibilities of the other, so as not to be really or normally conscious of anything except the states of the mind or power by which it has become fascinated or spell-bound.

The nature of the relations or associations between two or more substances, organs, or entities, depends upon the difference or likeness in their qualities or functions, and the difference in the nature or qualities of things. This accounts for the difference in the susceptibilities of different persons, to be influenced by any given substance or agency which is associated with the mind, or any part of the body (as the stomach) for the purpose of bringing about a change.

By changing the associations we may by design or incidentally change the mental or

physical powers and thus by exciting one sense we may suspend each of the others as neither two of the senses can be excited to a certain degree at one and the same time. Hence it is, that the thought or idea of a state or condition of the mind or body, when fixed in the mind for a sufficient length of time, suspends the senses and brings on that very change or state.

X.

Sympathy.

The laws of association or sympathy between the vital organs and the substances which nourish the system, such as air, and food, keep up the phenomena of life. Their disturbance produces disease, and their destruction, death.

The muscles, limbs, and organs, are controlled by the brain on the opposite side of the body; that is, the right brain corresponds with the left side, and the left brain with the right side, and the muscles are moved through these associations or relations which exist between different portions of the same muscles, and also, between these and the sympathetic nerves whose activity constitutes the mind. From which it follows, that there is a reciprocal influence between the different nerves and the other organs of the entire system; and hence it is that the state of one organ or part is changed by the state of another, with which it is associated.

These sympathetic relations or associations exist between the mental organs and the nerves and muscles of the face; they shape the features, and thus lay the foundation for all that may be known of Physiognomy; they give the contour to the entire system, so that associations may be traced between all the mental and physical developments; and from corresponding points of sympathy throughout the body, the different cerebral organs may be excited and controlled by any external agencies which may be brought into association with their susceptibilities for that purpose.

XI.

The Will.

The Human will is the aggregate of the mental faculties, acting in the same sense that the mind or heart, is the aggregate of those faculties. The wants of the mind and those of the animal economy grow out of the susceptibilities with which man is endowed. One faculty disposes to the reception of food—another to worship—another to know and understand the causes and relations of things. The exercise of any one faculty affords more or less satisfaction; and the

greatest satisfaction is enjoyed when the largest number of the faculties are gratified in harmony with each other. The highest organs in the brains are those whose functions take cognizance of moral relations and dispose to the performance of moral duties. The intellectual organs perceive and show the reason why duties should be performed, why we should worship one being rather than another. Hence it is that man is most satisfied when he is governed by the highest or moral organs, and the whole of his organs are gratified in harmony, together.—It is then he fulfils all the relations he sustains to God and man. It is then he enjoys the greatest satisfaction of which his nature is susceptible, and best answers the great end of his existence.

XII.

Moral Obligation—Happiness—Misery.

Moral power, when affirmed of moral beings is co-existent with moral obligation, and both are conditioned on certain susceptibilities, and relations. Duties to the Deity are conditioned on the relations we sustain to Him; duties to country, family and neighbors, are conditioned upon the relations we sustain to each, and the relations themselves are traceable to the mental and physical faculties by which each has it in his power to do the most intrinsic good to the greatest number.

Moral law is in harmony with physical and organic law, and the greatest good is secured when each of these laws are obeyed—from which it follows, that sin is the want of conformity to the moral law, and misery is the necessary consequence of a violation of either moral, physical or organic laws.

XIII.

Mental Phenomena.

Mental phenomena may be divided into four classes:

1. Those which occur from states of disease or the constitutional tendencies of certain minds. Dreams, visions, insanity, and many other traits of character are originated in this way.
2. Those which occur incidentally from associations and causes not apprehended at the time, but which affect certain temperaments and produce the changes which occur.
3. Those which are self-induced, such as sleep, trance, somnambulism, and, in a word, each and all those changes which come within the range of faith, hope, and the power of the human will. There is no state of the mind but which may be self-induced, where there are no disturbing causes

or previous associations strong enough to prevent the attention from becoming sufficiently fixed upon the result.

4. There are phenomena which are induced by certain associations or means, designedly used for the purpose by one person in operating upon the mind or nervous system of another.

The pathology of incubus, somnambulism, trance, second sight, insanity and dreaming, is the same, or so nearly so that the pathology of one of these states will readily suggest or explain the pathology of each of the others. In each case, the balance of power between the alternating states or periods of activity and rest, is suspended or destroyed, and hence the extremes into which the mind or some of its faculties are driven, without the power of self-control peculiar to a healthy waking state.

XIV.

Sleep.

Sleep is one of the alternating states of life, and it bears precisely the same relation to wakefulness, that inhaling and exhaling air bear to each other, and the ebbing and flowing of the blood. As we have seen, all the phenomena of life, alternate and are periodical; and when the lungs become periodically exhausted, they leave a larger quantity of venous blood in the cerebrum which is the physiological cause of sleep.

XV.

Dreaming.

Dreaming is a state of partial activity in the mental organs, between sound sleep and wakefulness. Whatever, therefore, tends to increase the circulation and to destroy the balance between the periods of activity and rest peculiar to the circulating system, increases the mental states, analogous and peculiar to a state of dreaming.

XVI.

Generation.

Intellectual and physical qualities are transmitted from parents to offspring. As the nervous organisms are generated, the activity of whose functions constitute mind, the mind itself is affected and modified, as the case may be, by all those states and circumstances which tend to affect the health, habits and mental condition of parents, and especially of mothers during the period of gestation.

XVII.

Death—Resurrection.

Death is the alternation of life, and the resurrection of the human body is the alternation of death. We can trace man no farther than death without a divine revelation, and from the bible we learn that by the gospel of Jesus Christ "Life and immortality are brought to light."

HEROIC TREATMENT.

A SYNOPSIS,

Containing a short abstract of the most practical articles; and showing at a glance, the most important indications of treatment by different writers, published within the last half-year.

Disorders affecting the system generally.

FEVERS.

Typhus.—The great indication of treatment is to produce fibrine, i. e., to separate the nucleus (the true representative of fibrine) from the envelope of each blood corpuscle. By giving chlorine (muriatic acid) and ammonia, alternately, this is accomplished. The envelope is decomposed, the nucleus remains undissolved. (Dr. Richter, p. 32.)

Dilute the system with nitrogenised matters, from the fact of ammonia or nitrogen being deficient in the system in typhus. After giving a full dose of castor oil, give 10 grains of carbonate of ammonia every six hours until the return of cerebral action, and then give aperients and quinine. Good beef tea well seasoned with spices and salt. Plenty of water and diluents. Port wine when the pulse will bear it. (Mr. Grantham, p. 29.)

When the circulation requires it, give wine under all circumstances of derangement of the functions. Two drachms of ether in the form of injections every two hours, when swallowing is difficult. Blisters in succession over the surface every six hours, over chest, abdomen, thighs, and legs, as stimulants to excite the capillary system. (Dr. Corrigan, p. 30.)

Ague.—Large doses of quinine (from 10 to 60 grains a-day) for four successive days, and intermitting it the six following days, thus embracing the interval comprehended in three fits; or

A large dose of quinine as soon as a fit threatens or takes place, and then omitted till another paroxysm comes on. Doses from 15 to 30 grains each day, increased sometimes to 60 grains. (Dr. Graves, p. 25.)

Before giving quinine, relieve congestions of internal organs, which may occur even in anæmic subjects; and then give a large dose of quinine, followed by small doses, in order to keep up its stimulating or tonic effects on the capillaries. (Dr. R. Chambers, p. 26.)

Every sufficient dose of quinine or bark loses power by fractioning it, like a dose of wine; therefore give a large or full dose during or just after a fit, and also during the intermission: the second dose to be given on any day from the first to the sixth interval, then to be repeated after intervals of 7, 8, 9,

10, 12, 14, 16, 18, 22, and 30 days. Best time for the dose immediately after a light dinner, and the first dose just after an attack. A dose, from 15 to 20 grains of sulphate of quinine, or 3 or 4 drachms of cinchona will keep off the fit for about eight days. (Brettonneau, p. 28.)

Scarlatina.—As soon as the efflorescence appears, and when the fauces are red, apply a solution of nitrate of silver to the inflamed parts in the throat (10 grains to the ounce); apply the camphor liniment combined with laudanum externally; and to a child of three years old, give half a drachm of diluted distilled vinegar, in syrup and water, every three hours; after fifteen years, give two drachms to a dose. The solution of nitrate of silver should be applied once or twice a day, by means of a bit of sponge at the end of a lead pencil. (Mr. Brown, p. 35.)

When there is dropsy, with albuminous urine after scarlatina, the epithelium separates from the mucous surface of the kidney, and there is a desquamation similar to that on the skin. Cutaneous action should be kept up until the renal secretion is restored, or all the consequences of Bright's disease may occur, and the patient die from the retention of urea in the system. It is in the mild forms that dangerous sequelæ are to be apprehended, the poison having been imperfectly, or not at all, eliminated through the skin. (Dr. Todd, p. 124.)

CANCER.—Use methodic compression, as recommended by Mr. Young. Apply perfectly smooth disks of agaric, laid over each other, and retained in situ by a roller (Recamier.) Use a laminated plate of lead, modelled to the tumour, surmounted by graduated compresses. (M. Begin.) Dr. Arnott's plan of applying pressure by means of an air cushion and spring, is the best, as it makes equal and regular pressure on the tumour, and is applicable whenever a bony or other solid support exists behind the growth, where a point for counter-pressure can be had. (p. 168.) Give the following internally: \mathcal{R} . Arsenici ioduret, gr. j.; ext. coar., \mathcal{O} ij.; M. in pil. xvi.; dividend. j. bis die. Diet should be light and nutritious, and exercise moderate. (Dr. Walshe, p. 169.)

SCROFULA.—Give muriate of barytes in doses of from half a grain to three grains. When given to infants, add a syrup to diminish its irritant effects, and if there be spasms, combine it with some aromatic or antispasmodic. The following is a good formula: Muriate of barytes, muriate of iron, of each half a drachm; water distilled, syrup of orange peel, of each half an ounce. Or give half a grain of barytes in a tea-cupful of infusion of hop, or some bitter infusion, every mor-

ning fasting, gradually increasing the dose. Or give it in pill, the best way, in doses of one-twelfth of a grain three times a day, increasing the frequency of the doses, rather than the quantity in each. Barytes does not supersede iodine in these cases, but sometimes iodine does no good, or it does good only to a certain point, and then proves noxious; it is here that barytes is of the greatest service.—Dr. Walshe, p. 170.

Scrofulous Tumours.—Consecutive to inflammation and suppuration of the lymphatic glands, apply the following ointment:—Oil of cod livers, 15 parts; liq. of subacetat of lead, 8 parts; yolk of egg, 12 parts: make into a homogeneous ointment.

Scrofulous Ophthalmia.—Smear the margins of the eye-lids with cod liver oil, twice or thrice a day, by means of a camel-hair brush, or feather.—Dr. Brefeld, p. 171.

RHEUMATISM.—Give colchicum, but should the fever run very high, add bleeding and mercurial purgatives; if the pain be of a nervous character, give opium or morphia. The colchicum acts by eliminating morbid matter from the system. The urine becomes increased in quantity, or specific gravity, or both; there may be a sediment, or this may be eliminated as dissolved urea, and then there is no deposit. Continue the colchicum for a week or ten days after the pain has subsided, to get rid of rheumatic matter; combine it with a mild tonic, iodide of potassium, and a good diet.—Dr. Williams, p. 165.

Acute.—Give one or two grains of opium every second or third hour, or ten, twelve, or more grains in the twenty-four hours.—The opium is to be increased in dose, both as to frequency and quantity, until there is decided relief, and kept at that dose until the complaint is steadily subsiding.—Corrigan.

Bleed, once or twice, in the robust only, and give gr. v. to gr. x, of calomel, with gr. iss. or gr. ij. of opium, every night, and a purgative next morning. Give also the following draught, three times a day:—*vin. colchici*, *mx. ad. xx.*; *pulv. ipecac. co.*; *gr. v.*; *mist salini*, *3x.*; *syropi*, *3j.*; *M.* Between the second and fourth day, and sooner, if tenderness of the gum occurs, omit the calomel, and continue one grain of opium at bedtime, and in some cases at noon, as also the colchicum draught and morning senna purge. [Dr. Hope.] When sore mouth supervenes, instead of continuing the opium, if there be not much pain left, give quinine and iodide of potassium. Disease of the heart is rare under either Dr. Corrigan's or Dr. Hope's plan of treatment; if it does occur, give large and repeated doses of calomel and opium. If the disease becomes

chronic, or the attendant fever is of a hectic character, give quinine or hydriodate of potash, in full doses.—Dr. Griffin, p. 162.

Chronic.—Give the clear cod-liver oil, in doses of a tea-spoonful, and gradually augment the dose to a wine-glass full, night and morning. Do not give this oil where dyspeptic symptoms co-exist. The best vehicle is a thin infusion of linseed, flavored with lemon peel, and sweetened to please the palate.—Dr. Bradshaw, p. 163.

Muscular.—"Fire" the parts with the instrument used by Dr. Corrigan. [See Paralysis, p. 56.]

Gouty Neuralgia.—This affection, often called sciatic gout from its seat, is cured by an attack of regular gout. Give a mild mercurial course, with salines, especially alkaline diuretics; occasional moderate detraction of blood, either generally or locally; a light and lowly animalized diet; and a most rigid abstinence from all fermented liquors, especially porter and aleo. The clothing should be warm; and give colchicum.—Dr. Robertson.

In gouty inflammation, apply leeches, and keep up a gentle oozing from the bites by warm fomentations; then keep the part covered and apply a lotion made of one part of spirit, three of camphor mixture, and a little vinegar. Give colchicum to stimulate and increase the secretion of the mucous membrane of the bowels and to eliminate lithic acid and other nitrogenized elements from the system.—Med. Chr. Reviewer, p. 162.

Rheumatic Gout.—Mix phosphate of ammonia, say ζ ss., in ζ vi. of distilled water; and give half an ounce of this either combined with small doses of musk or not. It decomposes the insoluble lithate of soda supposed to exist in the blood, and forms two new soluble compounds, phosphate of soda and lithate of ammonia. Give it for a considerable time where thickening of the white tissues exists; it deprives the blood of the lithic acid and soda, and creates a demand for them, which leads to absorption of these elements from the tissues where they have been deposited. This remedy is not intended to supersede the use of the lancet, and other remedies in acute rheumatism.—Dr. Buckler, p. 154.

Affections of the Nervous system.

TETANUS.

Traumatic.—Give large doses of tincture of aconite prepared according to Dr. Fleming's formula. Watch the case very attentively. Dr. Fleming would not exceed a second dose of 5 minims 2 hours after the first. In traumatic tetanus this will not be sufficient. Give 18 or 19 minims in eight

hours; the second day increase the dose to 32 minims in fourteen hours; third day, 25 minims in seven hours; and fourth day, 20 minims in two hours. Watch these doses unceasingly, and diminish them according to circumstances.—Mr. Page, p. 60.

Idiopathic.—Do not depend so much on stimulants, but support the strength on nutritious diet, such as animal jellies. Give opium in large doses with hydrocyanic acid; also a well-sustained course of purgatives, as colocynth pills with castor oil; cupping over the spine; turpentine glysters.—Dr. Watson, p. 57.

Try the hydropathic method of treatment. Envelope the patient in a cold wet sheet; over this place three or four good blankets; keep the patient in this condition for an hour, by which time the temperature of the sheet will probably be 100°. Then remove the coverings, and plunge the patient into a cold bath; rub him quite dry, and envelope him again in blankets for six hours.—Repeat this operation if the symptoms do not abate.—Mr. Preshaw, p. 60.

HYDROPHOBIA.—Employ large doses of the tincture of aconite, as recommended in traumatic tetanus.—[See Tetanus, Traumatic.]

DELIRIUM TREMENS.—Give opium and emetic tartar. Antm. potass. tart. gr. iv.; tinctura opii. ʒj.; mist camphoræ, ʒviiij. Mix, and give two table spoonfuls for first dose, and one every half hour afterward, until delirium abates or drowsiness comes on.—Dr. Graves, p. 96.

When morphia and other narcotics fail, and the case is extreme, blister the back between the scapulae, peel off the cuticle to the extent of three inches by two, and cover the part over with a layer of pure extract of belladonna. Within ten minutes there may be twitchings of the facial muscles, intoxication, pupils dilated, and drowsiness; immediately remove the belladonna, or even sooner.—Mr. Flood, p. 39.

Asthenic Form.—The object is to support the strength and allay irritation. Give stimulants and opium. The attack has come on gradually, and the patient has lived on stimulants, without proper food; the system is impoverished. Give broth and nutritious diet, with moderate quantities of good wine, and full doses of opium.

Sthenic Form.—The patient has been in-temperate for a short time only, during an election, &c.; he is otherwise robust; the case borders on inflammation. Do not give opium: apply leeches to the epigastrium or head; cold lotions. Do not commence by stimulating, nor by giving narcotics; although one or both of these methods may

be ultimately required.—Dr. Corrigan, p. 41.

MANIA (Mental Excitement).—In cases with great action or excitement without power, the great object is to subdue the cerebral excitement by procuring sleep. For this reason give occasionally tinct. hyocian. mxxx.; tinct. humuli, ʒij.; camphor, gr. v. to x. Or, relieve visceral congestion by leeches to the rectum; or give a full dose of opium. In anæmic cases, it is often necessary to give a stimulant, or good nutritious food before a narcotic. A combination of opium and tartar emetic; or calomel and opium; or the infusion of opium with a bitter; or the hydrochlorate of morphia; or an opiate enema may be tried. Rub three or four tea-spoonfuls of laudanum over the stomach; or rub the shaved head with liniment, camph. fort. combined with opium.

Apply a blister to the back, peel off a small portion of the cuticle, and apply the pure extract of belladonna for nine or ten minutes. [See Delirium Tremens.] When mania is periodic, give arsenic, tinct. ferri sesquichlor., zinc, copper, or tonics. Arsenic seems to alter the sensibility of the brain. It is, perhaps, better to keep the head regularly cold, than to apply the douche.—Dr. J. Williams, p. 35.

Puerperal.—Give opium and tartar emetic, as recommended in the treatment of delirium tremens.—Dr. Graves, p. 96.

PARALYSIS.—In cases where there is no organic lesion in the central organs, “fire” the patient every day, if permissible, along the spine, thighs, and legs, or other parts. Mode of application.—“The iron consists of a thick iron wire shank, two inches long, inserted in a small wooden handle, having on its extremity, which is slightly curved, a disc or button of iron, a quarter of an inch thick, and half an inch in diameter. The face of the disc is flat, not spherical, like the French ones. Hold the button over the flame of a small spirit lamp, keeping the fore-finger about half an inch from the heated button. As soon as the finger feels uncomfortably hot, withdraw the button, and apply it as quickly and lightly as possible, at intervals of half an inch over the whole of the affected part, bringing the flat surface of the disc fairly in contact with the skin.—A whole limb or the back may thus be fired in a hundred places, if necessary, in one minute. By looking sideways at the spots, the skin should look first of a glistening white, and, in a short time, of a bright red.—Dr. Corrigan, p. 55.

When there is no organic lesion, but only a want of nervous energy, in cases of local and not general paralysis, as when a single muscle of a certain class of muscles are af-

fects, as by the action of lead, make use of magnetic electricity.—Dr. Neligan, p. 43.

In cases depending upon cold, poisons, molecular changes in the brain and nerves, give strychnine in doses from one-eighth to a quarter of a grain three times a day. Do not exceed three quarters of a grain three times a day, and cease on the appearance of poisonous effects.—Dr. Favell, p. 55.

EPILEPSY.—One great difference between epilepsy and apoplexy is, that in the former the respiratory movements are even more active, impeded, indeed, by the spasm of the glottis which often exists, whereas in apoplexy respiration is impaired; hence the coma of apoplexy is more dangerous; not so with epilepsy, in which respiration is even exalted. This may be owing to the circulation through the cerebrum being impeded, and by means of the circle of Willis, diverted to the medulla oblongata; hence the exaltation of the medullary functions in hysteria, epilepsy, &c. Hence also the greater liability to convulsions during sleep, the superior hypnotic influence of moderate doses of opium, which exalt the medullary while they impair the cerebral functions, and the wakefulness caused by prussic acid, which impairs the medullary functions.—The great object of treatment is to equalize the circulation; not to allow one part to monopolize the blood at the expense of another. Bleeding is very exceptional, as the cases often occur in anæmic subjects. Improve the vigor of the circulation, and even increase the quantity of blood. Apply cold to the head and spine, and heat to other parts; purge, give diuretics, counter-irritate. Advise regular exercise, warm clothing. Reverse the action of the heart by hydrocyanic acid, digitalis, henbane, valerian. Improve the general tone of the system; give nitrate of silver, zinc, copper, chalybeates, mineral acids, bark, quinine. Perhaps the best is the muriated tincture of iron.—Dr. C. J. B. Williams, p. 49.

APOPLEXY.—When caused by intravascular congestion, plethora, or hyperæmia, deplete: when caused by extravascular effusion, the system is under the influence of shock, and does not bear depletion well.—How shall we know the latter case? Vertigo is a good characteristic, coming on in the act of stooping, sudden change of position, &c. But the best plan is to feel our way by a small blood-letting, and watch the effect. When caused by hyperæmia or inanition, restore the equilibrium of the circulation by good diet, and improving the health; quinine, iron. In this case the relief from depletion is transitory.—Dr. M. Hall, p. 46.

Neuralgia—"Fire" the parts affected, and do it repeatedly, if necessary.—Dr. Corrigan, p. 55: see Paralysis.

Give three grains of sulphate of quinine, with one-eighth of a grain of sulphate of morphia, an hour before each expected attack, and then give five drops of tincture of Indian hemp three times a day, and rub some cajepout oil on the part affected. Continue the quinine three times a day, and increase the Indian hemp to seven and ten drops three times a day till relieved.—Mr. Hargrave, p. 66.

Give colchicum, either alone or combined with other remedies, especially in cardiac neuralgia; and in this case, apply the tobacco leaf externally over the seat of pain: it should be slightly moistened, and removed on any symptoms of giddiness or sinking appearing.—Dr. Fife, p. 67.

Make a liniment with one drachm of tincture of aconite of the shops, and seven drachms of fresh palm oil, or with two ounces of camphor liniment. Rub half a drachm or a drachm of the former, or double the quantity of the latter, into the part affected, twice or thrice a day, according to its effects. It must be watched attentively, as the medicine is cumulative. If its poisonous effects appear, give a stimulant, as wine, or get the patient into the fresh air.—Mr. Kirby, p. 65.

[See Retrospect, Part XII., Art. 9, for Dr. Fleming's interesting paper on this medicine; and for his formula for the preparation of his tincture of anconite, see the same article, page 41.]

Facial. (Orbital).—Give half a grain of valerianate of zinc every eight hours, combined with two grains of extract of hyoscyamus. Follow this with gentle purgatives.—Dr. Bell, p. 62.

Periodic.—Give large doses of sulphate of quinine, from a scruple to half a drachm daily. Combine it, if necessary, with Fowler's solution of arsenic; but omit the arsenic unless unsuccessful with quinine and other remedies.—Sir B. Brodie, p. 62.

When the sulphate of quinine fails, give the tannate of quinine in the same doses as the sulphate.—Dr. Hauff, p. 65.

SCIATICA.—Apply a blister to the hip, peel off the cuticle and dress the part twice a day with one grain of hydrochlorate of morphia. Repeat the blister and morphia when necessary. Give also, three times a day, two ounces of guaiacum mixture, with 40 minims, or one drachm of the tincture of guaiacum; and apply some stimulating liniment. If these fail, try the internal use of turpentine.—Dr. Taylor, p. 61.

"Fire" the parts along the course of pain,

and, also, if necessary, across the loins.—Do it repeatedly, if requisite.—Dr. Corrigan, p. 55 : see Paralysis.

Affections of the Circulatory System.

ANÆMIA.—Improve the general health and strength, and the quantity and quality of the blood. Iron forms the chief part of the hæmotosin which is contained within the external envelope of the red globules ; therefore, this is one of the most important medicines by which to increase the quantity of globules. It is better to give iron in small quantities for a long time, than in large doses for a short time. The first organ to be attended to will often be the stomach and digestive organs. If the stomach will bear it, begin with mist. ferri. co. or with tinct. ferri. sesquichlor. in a bitter infusion : or give the sulphate of iron combined with ext. gent. or with ext. hyosciam., and a little aloes or rhubarb. When there is œdema, combine the potassio-tartrate of iron, with bitartrate of potass. The iodide of iron is also an excellent preparation. Sometimes iron cannot be borne at first : in this case give the bitter infusions, or, if the stomach be irritable and neuralgic, give hydrocyanic acid, with a little muriate of morphia, or the oxide of silver : in this case a belladonna plaster over the stomach, and even one third of a grain of extract of belladonna, three times a day, may be tried. It is impossible to anticipate all the symptoms which appear in anæmia : the case must be treated accordingly. (Dr. Turnbull, p. 69.)

HEART.—(Functional Diseases.)—Palpitation.—Owing, 1st, to a distended stomach ; and thus interfering with the descent of the diaphragm, and confining the heart's motions : 2nd, a distended colon pressing on the aorta, causing fullness of blood on the left side of the heart : 3rd, a distended stomach and colon pressing on the ascending cava, and causing a deficiency of blood on the right side of the heart : 4th, hepatic disease. Each of these states will require its particular treatment. (Dr. Bellingham, p. 77.)

ANEURISM.—(Compression in the treatment of.)—Such an amount of compression is not necessary as to cause inflammation and adhesion of the opposed surfaces of the vessel, nor should the circulation in the artery at the point where it is compressed be entirely intercepted. To apply it successfully, the velocity of the current should be diminished, and the amount of blood in the sac be diminished, so as to encourage the deposition of fibrine, until the sac is quite filled. It has this advantage over the cure of aneurism by ligature, that the artery is obliterated at the seat of the aneurism, by which the chances

of gangrene are diminished. The cure is also more effectual, as the sac and also the artery leading from it, become filled with fibrine, whereas, after ligature, a loose coagulum remains which does not fill the sac. (Dr. Bellingham, p. 209.)

It is not unfrequently found that the artery and its accompanying vein have become adherent, which is a great source of embarrassment to the operator, when tying the artery ; this is avoided by adopting the treatment by *compression*. A moderate degree of pressure is all that is necessary throughout, so as not entirely to intercept the current of blood through the vessel. (Dr. Porter, p. 211.)

ANEURISM by Anastomosis, or Nævus Martenus.—Tie the tributary arteries in the neighbourhood (Palletan, Wadrop. Dr. Mc Lauchlan.) Tie the arteries supplying the tumour, and then remove it by knife, securing the bleeding vessels with ligatures. (Syme.) Cut off the supply of blood to the tumour by making incisions around it, secure the bleeding vessels, and place pledges of lint between the cut surfaces to prevent union taking place. (Dr. Gibson.) Use galvano-puncture for ten minutes at a time, with 15 pairs of plates. The pins introduced into the tumour should be numerous, and cross each other at right angles ; apply ice after the operation. (Dr. Petrequin.)

NÆVI.—Apply lint steeped in liq. plumbi, or solution of alum, and strap it over the part with a bandage ; wet the lint without removing it, and keep it so applied for several weeks. Should this fail cut out the tumour, if no larger than a crown piece, and close the edges of the wound by twisted suture. (p. 231.)

SUBCLAVIAN ARTERY.—(Ligature of.)—When there is extensive swelling and suppuration, after the lesion of an artery, it is not advisable to cut down upon it, to tie it at the seat of injury ; and when this is the case after the wound of the subclavian, it is better to secure the artery beneath the scapula, before it approaches the tubercle of the rib ; it is much higher and more accessible there. (Dr. Warren, p. 222.)

POSTERIOR TIBIAL ARTERY.—(Wound and Ligature of.)—Take the wound as a centre, and cut down upon the vessel, and tie it both above and below the seat of injury. (Arnot.) If it be a case of secondary hæmorrhage, and there is a good deal of coagulum in the parts surrounding the vessel, it will be advisable to tie the femoral artery. When there is a wound in the calf of the leg, with sufficient bleeding to warrant a band that the posterior tibial artery is wounded.

separate the soleus from its attachment to the tibia, cutting through the deep fascia, and secure the vessel. (Mr. B. B. Cooper, p. 217.)

HÆMORRHAGIC DIATHESIS.—Apply to the bleeding part pads soaked in acetate of lead mixture, and cover it also with pulverized matico. Give the following mixture: R. Plumbi super acet. ℥ss.; acid acet. dil. ℥ss. syr. rhœad. ℥ss.; aquæ ℥v. M.; sumat cochl. ij. magn. omn. tertia hora. If the acetate of lead begins to affect the system, substitute for it the sulphate of soda. You must rely upon constitutional treatment. (Dr. Clay, p. 234.)

EPISTAXIS.—Give the oxide of silver internally. (Mr. B. Lane, p. 103.)

Affections of the Respiratory System.

BRONCHITIS.—(In Infants.)—If very severe make use of the warm bath, and give one grain of calomel and two of ipecacuanha with a little compound tragacanth powder, every four hours; if less severe, three times a day, and lengthen the period as improvement takes place. After the first or second dose, the ipecacuanha does not act as an emetic. When necessary to apply a blister to an infant, place a piece of tissue paper between it and the skin, or dip a piece of blotting paper into acetum cantharidis; apply it to the part, and in ten or fifteen minutes you will have a blister. (Mr. Miller, p. 88.)

Chronic or Subacute.—Cause the patient to inhale the fumes of ammonia (p. 90.)

PNEUMONIA.—(Chronic.)—Cause the patient to inhale the fumes of ammonia, in order to stimulate the parts. (p. 89.)

ASTHMA.—Dip a charpie-pencil into pure liquid ammonia and then into water, and apply it to the velum, uvula, and upper part of the œsophagus. Do not let it remain too long in contact with the soft parts, nor carry it too deeply into the throat; where there is emphysema, one application will be sufficient. The absorption of ammonia by the stomach will probably produce the same result, if given in sufficiently large doses, or its inhalation when diffused in the atmospheric air.—(M. Guérard, p. 89.)

APHONIA.—(Loss of Voice.)—Inhalation of fumes of pure ammonia. (p. 90.)

ASPHYXIA.—Use cold affusion, and when respiration is fully established, open a vein. (Mr. Noyce, p. 238.) Cause the patient to inhale the fumes of pure ammonia. (p. 89.)

ŒDEMA.—(Of the Glottis.)—When suffocation threatens, perform the operation of laryngotomy. (Mr. Drookes, p. 378.)

TRACHEOTOMY.—In children: lay hold of the trachea with a hook, and, having drawn

it forwards, cut out a portion with a pair of scissors; or use Mr. Millikin's instrument, by which you can both fix and hook the trachea, and then cut out a circular portion from the cartilaginous rings. Mr. Read's improved instrument is a very good one; the cutting part forms a curve or obtuse angle with the handle. (Mr. Carmichael, p. 236.)

Perform the operation early. If you cannot avoid the thyroid veins, cut straight through them; the hæmorrhage ceases on the introduction of the canula. If the case be not very urgent, keep the edges of the wound apart by some instrument, for a short time before introducing the canula, in order to allow of false membranes being expelled. You may expedite this by dropping water into the bronchi, and sponging the trachea. If the canula become obstructed, remove it immediately and empty it, and when the canula is withdrawn, introduce the dilator. After the fourth or fifth day diminish the size of the canula, and by the thirtieth day, it may be dispensed with. Drop into the air passages, fifteen or twenty drops of a solution of nitrate of silver (gr. v. to ℥j.), and cleanse the trachea with a sponge dipped in the same solution. (Trousseau, p. 237.)

PARACENTESIS THORACIS.—Do not allow air to be admitted through the canula if it can be avoided. It may re-ignite inflammation, or convert the adhesive into the suppurative inflammation. Unless the lung is capable of free and full expansion, do not attempt to draw off all the fluid: remove only so much as the expanding lung and the surrounding compressed organs are capable of replacing. Watch the opening carefully, especially during inspiration and coughing, and when the stream begins to fail, turn the patient on his punctured side till there is an alternate flow and stoppage of the stream during inspiration and expiration, then immediately withdraw the canula. Apply a flannel bandage with moderate firmness around the chest. *Precautions.*—1. Always introduce an exploring needle first, to know if the diagnosis be correct. 2. Do not puncture one side before it is presumed that the other is sound enough to carry on respiration. 3. Draw off the fluid slowly through as small a canula as the density of the fluid will admit. 4. Only draw off the fluid till the air seems to threaten to be admitted. (Dr. Hughes, p. 36)

Affections of the Alimentary Canal.

HARE LIP.—[Operation for.]—Make the incision from above downwards, nearly as far as the red margin of the lip, and stop before you have detached the cut piece; then direct the incision at a right angle towards

the meridian line. Do the same on the opposite side, and then unite the two margins in their whole extent, except towards their free borders: the flaps formed by directing the incisions towards the median line are to be approximated. [Mr. Smith.] If the child be strong and healthy, and the fissure only affects the lip and not the bones, the operation should be performed a few days after birth. [Dubois.] When the features are enlarged, there is more ground to work upon, therefore defer it until the first set of teeth have appeared. [Liston, p. 239.]

FRÆNUM LINGUÆ.—(New Instrument for Dividing.)—This resembles a pair of scissors; its blades are perfectly blunt and curved, and do not close completely, thus leaving an interval for the reception of the frænum. [Dr. Beatty, p. 245.]

CLEFT PALATE AND STAPHYLOGRAPHY.—Dissect the soft tissues from each side of the fissure in the palate, to such an extent as to make a flap broad enough to join its fellow of the opposite side in the mesial line, and stitch the whole between the uvula and the anterior extremity. Re-union to a considerable extent, takes place, and towards the inner margin of the bones, and also on the upper surface of the soft portion in the middle, there will be a cicatrix analogous to mucous membrane. [Warren.]

The soft velum ought to remain in a state of perfect repose, and for this purpose the levator palati, the palato-pharyngeus, and the palato-glossus muscles should be divided. This cuts off all motor influence in an outward, upward, or downward direction. For this purpose use a knife with a blade like the point of a lancet, the cutting edge being about a quarter of an inch in extent, and the flat surface being bent semi-circularly. Make an incision half an inch long on each side of the posterior nares, and divide the levator palati muscle on both sides, just above its attachments to the palate; then pare the edges of the fissure, and with a pair of long blunt-pointed scissors, divide the posterior pillar of the fauces, and, if it seems necessary, the anterior pillar too, the wound in each part being a quarter of an inch in extent: then introduce stitches by means of a curved needle set in a handle, the threads being tied so as to keep the cut edge of the fissure in exact contact. The first incision, that for the division of the levator palati, should be made midway between the hard palate and the posterior margin of the soft flag, just above the thickest and most prominent part of the margin of the cleft. You may commence cutting either at the end nearest you, as you stand behind the patient, or that furthest off, as may seem most con-

venient. For ligatures, those of stout silk, or flaxen thread, are the best; and it is of the greatest importance that a stitch be used close to the lower end of the uvula, as there is a great tendency to separation there. The after-treatment the same as after ordinary operations, except that the parts are to be kept at rest as much as possible, and nutriment to be given by means of enemata of gruel and soups. (Mr. Fergusson, p. 240.)

PALATE.—(Operations on.)—In cases of small holes in the soft or hard palate, pencil their borders several times a-day with a concentrated tincture of cantharides. Inflammation and granulation come on and close the opening. Large openings are to be closed by suture, after paring the edges; and leaden wire is said to be preferable to silk, for ligatures, as it keeps the edges close together, and does not cut through the textures.

When there is adhesion between the velum palati and posterior wall of the pharynx occasioning deafness, and stopping the communication between the nares and air-passages, the adhesion must be divided transversely, by means of a long scalpel, about half an inch below the adherent border of the velum. The edge must be fixed by a hook, and drawn from the wall of the pharynx, then, with a lancet-formed knife, the surface of which is curved, directed upwards, the velum is to be loosened, and the separation completed by scissors, also curved upon their flat surface. The upper adhesions are to be destroyed by passing a blunt curved iron instrument, like a very small spatula, along the inferior nares. Next prepare a ligature with a small curved needle at each end; with one of the needles transfix the velum, a few lines from its edge, and bring it out at a high point on the anterior surface of the palate; the other needle must be used in the same manner, a short distance from the side of the other; and the edge of the velum must be brought about half an inch from the palate. All mechanical means for closing the fissured palate, are not only injurious but dangerous; but if the size of the cleft, or other circumstances, render an operation unavoidable, then it may be covered with a gold plate, fixed to the teeth. In cases of holes in the palate, the edges of which are so callous that an operation would be unsuccessful, the opening may be stopped by wearing a double piece of Indian rubber, without fear of its being enlarged. Two pieces of Indian rubber, the thickness of pasteboard, are cut about four or five times larger than the opening, and between them a small round piece, and they are to be transfixed by waxed thread; thus, one plate lies on the anterior, the other on the posterior side of the palate.

and the small middle strip in the opening. The patient can apply it himself, and it should be taken out to be cleaned once a week. [Dieffenbach, p. 244.]

CYNANCHE.—Make free incisions, varying them in depth and extent according to the case in the following manner: Take a long round-pointed scalpel, and having covered the blade with adhesive plaster to within three quarters of an inch of the point, firmly press down the root of the tongue with the index-finger of the left hand, and make one or more incisions in a direction upwards and outwards along the tonsil and velum to the base of the uvula. The throat to be gargled with warm water to encourage the bleeding; in other respects gargles are useless, since they cause motion in parts which ought to be kept at rest. [Dr. Makin, p. 91.]

BOWELS—[Acute Inflammation of.]—Where local or general depletion has been used, or where they cannot be resorted to, give two grains of opium, and then one-grain doses every two hours, until about 32 grains have been taken; watch the state of the bladder, and open the bowels with mild purgatives, combined with henbane. If the enteritis be intense, deplete; and should the system resist opium, give calomel, but substitute opium for it as soon as the symptoms give way. Do not give it in small doses, for then it checks the diarrhœa, but does not relieve the inflammation. If dysentery exists, combine it with ipecacuanha. [Dr. Griffin, p. 94.]

DYSPEPSIA.—When dependent on or complicated with hyperæmic or sub-inflammatory condition of the mucous membrane, direct the use of herbaceous aliment, as grapes, apples, strawberries, pomegranates, &c.; give them about an hour before breakfast, and in the intervals of meals. Should flatulence and fœcal accumulation arise, treat the former with soda and ginger, and the latter with a pill of aloes, capsicum, and quinine. (Dr. Dick, p. 96.) Or, give oxide of silver in half-grain doses twice a day, in conjunction with aperients and alteratives. In gastralgia, oxide of silver acts well as a sedative.

PYROSIS.—Give half-grain doses of oxide of silver in a pill twice a day; where there is deep-seated pain, apply leeches to the epigastrium first. (Mr. Butler Lane, p. 107.)

CONSTIPATION.—Where there is no recognized stricture, strangulated hernia, or abdominal tumours, make use of an oleaginous enema, to five pints of which add an ounce of sulphate of magnesia, and a table spoonful of common salt. In giving the injection, let the patient lie on his right side, with the

pelvis considerably elevated; it should be administered slowly, so that the intestines may be filled before it is distended, and when it contracts may force away the feculent matter mechanically. Use well-boiled oatmeal gruel with common salt and butter. (Dr. Hall, p. 97.)

When it arises from obstruction near the junction of the ileum with the cœcum, inject air into the bowels. (Dr. Todd, p. 103.)

When dependent on indolence of the bowels, warm water injections are injurious. Give a pill containing one-fifth of a grain of the extract of nux vomica every morning; it acts by rousing the contractile power of the intestine. It is particularly of service to the paralytic, or where the muscular tone of the intestine is lost by over-distension. Injections of catechu, krameria, and alum are useful, as they corrugate the muscular fibres of the bowels, and diminish the size of the pouches which may be formed in the intestines by accumulated feces, particularly that in the rectum just above the sphincter. These astringent injections may be varied; they may be made of the red rose, krameria, oak bark, bistoria, catechu, alum, rhatany, nux vomica, &c. They should only be small, 10 or 12 ounces, and not retained many minutes, so that the muscular fibres may readily contract.—Or, introduce tents into the rectum. (Fleury.) Or, champoo it. (Recamier.) Or, give ox-gall; as auxiliaries, add drinks of vegetable bitters, a tonic diet, and exercise in the open air. (Dr. Teissier, p. 100.)

CONSTIPATION DURING PREGNANCY.—Inject into the rectum a drachm of the inspissated ox-gall, dissolved in a pint of warm water. [Dr. Allnatt.] This may be repeated every four hours until relief is produced. [Dr. Aldis, p. 102.]

DIARRHŒA.—[Chronic.]—Give half grain doses of oxide of silver, twice a day. [Mr. Butler Lane, p. 103.]

DIARRHŒA IN YOUNG INFANTS.—Give castor oil with yolk of egg, and if necessary, add an opiate. Prescribe as follows, for an infant of from two to four months old: R. Ol. ricini, ʒj to ʒiiss.; vitelli ovi semis; aq. aneth. feneculi, a. a. ʒj. ft. emuls. sumat coch. parv. bis die. From two to six drops of laudanum may be added, but this, as well as its amount and frequency, must vary with the case. [Dr. Thomson, p. 104.]

HERNIA.—[Radical cure of.]—The means to be used are, excision of the testicle, incision of the sac, excision suture, and cauterization of the sac, ligature of the sac after incision of the integuments, acupuncture, and insertion of gold-beater's skin in the sac. These means, however, do not prevent a

fresh hernial descent, although they destroy the sac. The best means for procuring closure of the hernial aperture, are trusses, ligature of the sac, and its envelopes, and the cutaneous plug. Trusses should not press too powerfully on the abdominal parietes, or they may produce inflammation or irritation of the parts, or the walls of the abdomen may become atrophied; or if the pad be very small and convex it may produce elongation of the aponeurosis and muscle, and thus weakens the parts. The operation by ligature is attended with considerable pain, and even loss of life. There are two ways of introducing the cutaneous plug—the first, to detach a piece of integument from the neighbourhood of the ring, and introduce it into the aperture: the second is effected by drawing the loose scrotal integument into the inguinal canal, and to cause adhesive inflammation between the invaginated integument and the walls of the canal. M. Gerdy retains the invaginated integuments in situ by one or more sutures. Mr. B. Cooper, in performing M. Gerdy's operation, stitched the invaginated skin to the tendon of the external oblique muscle, and brought out the needle an inch and a half above Poupart's ligament; the needle was again passed into the canal, and brought out through the abdominal parietes as before, about four lines distant, and the skin between the two ends of the ligature was thus included and tied over a piece of bougie. [Mr. Teale, p. 247.]

STRANGULATED.—In order to determine whether the intestine be still living or not, wait a few moments after dividing the stricture, and see whether the discolouration becomes less intense; or press the blood out of the distended veins and see if they become rapidly refilled. If no evidence of circulation exist, cover the intestine with integuments, or with a moist sponge, and wait a little while; the surface of the intestine may then be carefully and slightly scarified with the point of a lancet, and perhaps a slight oozing of blood will take place, if so, however discoloured it may be, the intestines may be returned into the abdomen. Carefully press out the contents of the intestine and then replace it in successive portions; then pass the finger within the abdomen to determine that no portion of the intestine is engaged within the sac, and also to determine that the protruded knuckle of the intestine is not invaginated within a neighbouring portion of the intestinal canal. When gangrene has taken place, and is general, make an incision through the whole length of the gangrenous portion, and leave it to slough away. This opening allows the contents of the upper part of the canal to pass away: but if this does

not take place without dividing the stricture, this must be done with as little disturbance as possible. The wound must be left open, to facilitate the free discharge of matters, and simply dressed with wet linen, frequently renewed. Mr. Travers does not recommend division but dilatation of the stricture. Sir A. Cooper divided the stricture generally. Mr. Key also advises it. Brasdor's practice of excising the gangrenous parts and uniting the divided extremities by suture is universally abandoned. Recent adhesions, if there be no gangrene, are to be destroyed by the finger or handle of a scalpel—adhesions of two coils of intestine is also to be treated in this way. [Mr. Teale, p. 249.]

It is recommended by some practitioners, as Mr. Key, &c., to return the bowel without cutting into the sac, as there is less danger of peritoneal inflammation afterwards. The objection to this practice is the possible gangrenous condition of the bowel, many of the symptoms of which are equivocal, so that it is the best practice, after all, to open the sac. The great mortality attending these operations has been increased by improper after-treatment, as the early exhibition of purgatives. [Mr. South, p. 251.]

ENTEROTOMY AFTER OPERATION FOR STRANGULATED HERNIA.—It sometimes happens that after the operation for strangulated hernia, and after the intestine has been returned, symptoms of strangulation remain; the part of the intestine is incapable of resuming its functions, and tympanitis comes on. Separate the edges of the incision, pass the finger into the abdomen, find the distended coil of the bowel, seize it with a pair of forceps, and by means of probe-pointed scissors, make an opening into it, through which the contents of the intestinal canal may escape; many a life may be saved by these means. [M. Maisonneuve, p. 254.]

ANUS.—[Artificial]—After the bowel has been strangulated so long that gangrene of a portion has taken place, and an artificial anus is formed, either by the knife or by sloughing, and the stools are passed out of the opening, try the ingenious method adopted by Mr. Trant, of Dublin, which consists of introducing a small silver tube [made by Mr. Millikin, of Dublin,] and pressing back the intermediate portion of the intestine lying between the abdominal and anal position of the artificial opening, and thus bring the parts into such relation that the stools can pass into the natural channel. In this way the opening may be gradually closed, and the functions of the part restored to the normal state. [Mr. Trant, p. 262.]

FISTULA IN ANO.—Pass a ligature through

the fistula, bringing it out at the anus and gradually tightening it upon the included part; use a catheter wire, about as thick as small twine. [Dr. Colvan, p. 261.]

HÆMORRHOID—Where the case is recent, and the protruded piles not large, the bleeding small, and the constitution not affected, give a few grains of blue pill and rhubarb at night, and a little infus. rosæ and epsom salts in the morning, for a few days; after which give the ordinary electuary of senna, sulphur, cream of tartar, and mel rosæ, or, what is better, treacle, as the mel rosæ often gripes. Also inject into the rectum a pint of cold water with a drachm of nitre dissolved in it; enjoin steady exercise, and moderation in diet. In thin delicate subjects, give tonics, particularly mist. ferri aromatica; and if there be any serious organic mischief, particularly of the chest, interfere with the piles as little as possible. When the patient is becoming debilitated from the pain and irritation, as well as from bleeding, then remove the protruded hæmorrhoidal portions of the bowel, having secured them by ligature. [Mr. Hamilton, p. 257.]

INTERNAL BLEEDING HÆMORRHOIDS.—Inject after every alvine evacuation, solution of acetate of lead ʒj. to ʒviij of distilled water; use two ounces of the solution for each injection; give an occasional blue pill, followed by a dose of castor oil and extract of tamaracum. To remedy the constipation usual in these cases, give the following confection: common resin, well powdered, one ounce; clarified honey, five ounces; half an ounce of balsam of copaiba renders it more efficacious, but is apt to disagree with the stomach. [Dr. Watson, New-York, p. 257.]

LIVER. [Congestion of.]—In diminished secretion, with pale or white stools, give mercury. In excessive secretion, increase the amount of oxygen inspired, and thus, during respiration there will be consumed materials that would otherwise be left for the liver to excrete; for while the carbon of the lungs is united to oxygen, and excreted in a non-combustible state, the carbon of the liver is non-oxygenized, is still combustible, and is intended, not for excretion, but absorption. Limit the supply of food which contributes to form bile, as spirituous liquors, butter, cream, fat, sugar, &c. The patient ought not to sleep immediately after a full meal, nor take suppers. [Dr. Budd, p. 106.]

Affections of the Urinary Organs.

URINARY DEPOSITS.—*Apparatus*.—A microscope, with a power of 300 diameters; test glasses; phials containing nitric and acetic acids, water of ammonia, and potash; some slips of blue and reddened litmus paper, and an urinometer.

Diagnosis.—Notice whether it be colorless, amber, saffron, red, &c., transparent or turbid; ascertain by litmus paper whether it be acid, alkaline, or neutral; note its specific gravity; set it aside to see if it deposit a sediment, or throw up a cream to the surface, or crystallize on the sides of the vessel. The urine should be recent, and if the patient have leucorrhœa or be menstruating, should be drawn off by a catheter; take care to have the vessel clean.

Urates are in excess when the urine is acid, deposits on cooling, a red, pink, buff-colored or white precipitate, covering the bottom of the vessel with an even powdery deposit, usually copious, and dissolving by heat; viewed by the microscope, a powdery appearance; dissolved in nitric acid by a gentle heat, evaporated to dryness, and held over the fumes of ammonia, murexide of a beautiful red color is formed.

Uric Acid.—Urine highly acid, and deposits on cooling, a red, pink or buff-colored sediment, adhering to the sides of the vessel in hard crystalline grains, having the appearance by the microscope of diamond-shaped plates or prisms; the precipitate is generally scanty; forms murexide the same as the urates, with nitric acid and ammonia.

When the urine is acid, alkaline or neutral, but turbid on emission, and deposits a white or yellowish sediment, and is not rendered transparent by heat, there will be present, phosphates, oxalate of lime, cystine, mucus, pus or blood; if the

Phosphates, it is rendered apparent by acetic acid; the earthy phosphates appear as amorphous powders by the microscope, the ammoniaco-magnesian, as triangular prisms.

Oxalate of Lime.—Not affected by acetic acid or ammonia, but rendered transparent by nitric acid; deposit when viewed by the microscope consists of octohedral crystals.

Cystine.—Rendered transparent by solution of ammonia; viewed by the microscope it consists of five-sided plates, clouded in the centres.

Pus or Mucus.—The sediment is whitish, and not dissolved by any of these agents; viewed by the microscope it consists of minute, irregular, spherical bodies with granulated surfaces.

Blood.—Sediment red, and not dissolved by nitric acid, heat or acetic acid; by the microscope it consists of minute yellowish bodies, the shape of a shilling.

The dissolved constituents in diseased states of the urine, are:

Bile.—To detect it, drop the urine and nitric acid a short distance from it on a plate of glass: as they meet examine them with

an achromatic microscope, and if bile be present, a green color will be produced.

Albumen.—Sp. gr. 1,014, or lower; heat coagulates the albumen, and this cannot be redissolved by nitric acid; nitric acid coagulates the albumen.

Sugar.—Sp. gr. 1,025, or above; taste sweet; boil the suspected urine with an equal bulk of water of potash, if sugar be present the liquid will assume a deep porter or beer color.

TREATMENT:—*Lithic Acid deposits.*—Give gr. x. or ℥j. of bicarbonate of potash or soda, three times a day, and if the deposit be in the form of rhombic prisms, indicating gout, give colchicum, using local antiphlogistic measures, if the urine be sanguinolent or albuminous, and there be pain in the loins. If the deposit be amorphous, there is either excessive secretion of the solid constituents of the urine, or a deficiency in the secretion of water. In the former case, the sp. gr. is increased in proportion to the quantity; give iodide of potassium three times a day in doses of 5 or 10 grs. In the latter, the quantity of urine is decreased, there will be fever either idiopathic or symptomatic, which must be removed, or dyspepsia, in this case give a scruple of alum three times a day in half a pint of water. If the sediment have a pink color, attend to the biliary functions.

Weakly Acid or neutral urine.—This shows that the kidneys are inflamed. It acutely, use general and local depletion, and exhibit emollients and contrastimulants; give ℥j. doses of iodide of potassium. If the inflammation be chronic, use local depletion and counter-irritation; setons are very useful; occurring during typhus, apply blisters to the loins, and give wine.

Oxalate of Lime deposits.—At first give tonics, the mineral acids, vegetable bitters, astringents, &c.; and after some time give alkalies largely diluted. Alternate these plans, and persist steadily in their use. The following is a good tonic in these cases:—*Infus. cascarrill.* ℥vj; *potass. nitrat.* ℥j; *acid. nitrici dil.* ℥iiss; *tinct. opii* ℥j. *M. sumat. cochl. duo ampla ter in die.*

Albuminous Urine.—Use active depletion, both local and general; give nauseating doses of tartar emetic, and hydragogue purgatives; use the warm bath; give alkalies. Persevere in this treatment, but should the strength fail, and a cachectic state come on, depend on active counter-irritation, especially by setons. (Dr. Aldridge, p. 134.)

Albuminous Urine after Scarlatina.—If seen early, adopt antiphlogistic measures; and when active is succeeded by passive congestion, give two or three grains of ace-

tate of lead three times a day, to prevent the insidious drain on the system, and then give muriated tincture of iron, to repair the anæmic state of the system. (Dr. O'Ferrall, p. 124.)

Diabetes Mellitus.—The sugar in this disease is formed not only in primary but also in secondary assimilation from the tissues, as the emaciation proves; hence the rigorous exclusion of non-azotized substances is not advisable, as it forces the diseases to attack the living tissues, therefore allow at least farinaceous food. (Dr. Dick, p. 122.)

Exalt the tone of the secreting capillaries of the kidneys by balsams, ammonia, strychnia, and other excitants, when the perspiratory secretion is suppressed; if it be not, give chalybeates, alum, sulphate of zinc, or other metallic astringents; give a moderate portion of animal food, porter, &c., but do not enjoin a strictly animal diet.

Diabetes Insipidus.—Give anti-spasmodics and mineral tonics, and apply stimulating liniments to the spine.

Purulent Deposits in Urine.—Give tonics, to subdue the asthenic inflammation of the mucous membranes; decoction of the leaves of *chimaphila corymbosa*, *diosma crenata*, *arctospaphylos*, *uva ursi*, or the root of *cissampelos pareira*, combined with mineral acids; also give chalybeates.

Hæmaturia.—Treat this disease in the same way as other vicarious discharges; give astringents, as tannin; or styptics, as oil of turpentine; when you give the latter be on your guard against nephritis. (Dr. Aldridge, p. 135.)

Bright's Disease, or Albuminuria.—Enjoin a general tonic regimen, avoid as articles of food, fat and other highly carbonised materials, attend to the functions of the skin and bowels, relieve congestion of the gland, and, if necessary use small bleedings (Dr. Johnson.) Make use of cautious small blood-lettings in the early stages, particularly if acute; give hydragogue cathartics, and improve the general health; do not deplete where the disease is chronic. (Dr. Williams.) In the very early stages change the mode of life and habits of the patient, enjoin pure air and careful attention to diet and exercise; in this stage application for relief is seldom made. In the second and third stages, relieve congestion; promote the flow of urine and the action of the skin, and prevent the disposition of fatty matters by a diet which contains neither fat, nor butter, nor any of those non-azotized substances nearly allied to it, as starch, sugar, potatoes, &c (Dr Todd, p. 110.)

In the acute form, remove congestion of the kidneys by blood-letting, regulated ac-

cording to the intensity of the disease and the patient's strength; restore the function of the skin, by keeping the patient in a warm atmosphere, giving mild diaphoretics, and the use of the warm or vapor bath.—Dr. Barlow gives tartar emetic. Next, remove the dropsy, by diuretics and purgatives, nitrate of potash, in doses of two scruples or more, with digitalis and cream of tartar; the nitrate should be largely diluted.

In the chronic form, first attend to the function of the skin by warm clothing, diaphoretics, and the warm bath. Give tincture of cantharides in doses of from four to twelve drops, in some emulsion (Dr. Bright;) Dr. Wells and M. Monneret advise thirty to sixty drops in twenty-four hours; or give ioduret of iron (M. Gutbrod;) or hydriodate of potash, and use iodine ointment [M. Alken;] or give chalybeate tonics, saline purgatives, and nutritious diet [Dr. Reese;] or equal parts of tinct. of cantharides and tinct. of sesquichloride of iron [Dr. Copeland.]

Treat the dropsy with cream of tartar and digitalis [Dr. Christison, give from a drachm to a drachm and a half of the former three times a day, and at the same time a pill containing one or two grains of powdered digitalis, or twenty drops of the tincture in cinnamon water; give a blue pill [grs. 5] every night for four or five nights. Diuresis may often be established by an emetic of ipecac. and tartar emetic, or by a hydragogue cathartic; should these fail, give squills, broom, spirit of nitric ether, or Hollands and water, or carbonate, nitrate, or acetate of potash; or decoction of horse radish [Rayer]. Diuretics do not cure the disease, they can only relieve the dropsy.

Try Seidlitz or Pullna water; cream of tartar in half ounce doses [Rayer]; give five, seven, or nine grains of gamboge, once every two days, triturated with bitartrate of potash, to prevent griping. Combat the concomitant affections of the digestive organs with creosote [Dr. Christison]; give it as a pill, one drop of creosote, two grains of rhubarb, and one grain of extract of gentian, for the mass; or with the sedative solution of opium; or with extract of opium and nitrate of silver, half a grain of each in a pill. Apply sinapisms, turpentine epithems, or a cantharides blister, externally; sprinkle the blistered surface with muriate of morphia; check diarrhoea with chalk, astringents, and opiates; or give acetate of lead with opium, or strychnine with opium.—Dr. Wood, p. 120.

INCONTINENCE OF URINE—(the result of stricture).—Endeavor to remove or relieve the stricture by bougies or catheters; when

these fail, the lanced stilette, Mr. Stafford's, may be sometimes resorted to with advantage. It is a dangerous instrument, and should be used with great caution. It should be firmly pressed against and then through the stricture, and after it be withdrawn a catheter should be introduced, Lawrence. The tone of the bladder, after retention of urine, may be restored by giving ergot of rye in two-scruple or drachm doses, twice a day, about an hour or two before the bladder begins to feel uneasy from the accumulation of water.—Braithwaite, p. 297.

LITHOTRITY.—The best instrument for performing this operation with, is the two-branched curved instrument of Baron Heurteloup. A new instrument, by means of which a large calculus may be ground to powder in a few minutes, by oscillatory movements, it is worthy of attention.—M. Leroy, p. 273.

Prepare the patient for the operation by enjoining a light diet, abstinence from fermented liquors, clear out the bowels, and order the hip-bath; if the urine be acid, give alkalies combined with uva ursi or Peruvian bark, if alkaine, give the mineral acids; and if mucous deposits, infusion of Pareira brava; enjoin absolute rest, and use occasionally an anodyne enema. The urethra is to be gradually dilated, if necessary; when preternatural contraction of its orifice exists, divide it. Introduce the catheter frequently, as it allays the irritability of the bladder and urethra. The objects of the operation are to reduce calculi within the bladder to such a size that the portions may be removed or discharged through the natural passages, to effect this by such means as shall excite no dangerous irritation in the urinary organs, and to free the bladder from the small fragments which remain. Great care should be taken that the case be a suitable one for the operation, as in some cases cystotomy must be preferred. Lithotripsy may be performed where the bladder is perfectly healthy and the stone is small; and it is decidedly advantageous where there is phthisis or albuminuria. It is a great and valuable addition to surgical therapeia, but cannot be considered as a substitute for cystotomy, since there are numerous cases in which the last operation will prove the safest and most effectual.

Cystotomy, for example, is preferable in boys before the age of puberty: it is so simple and the urethra is so small as not to admit of the lithotrite. Cystotomy is also preferable in the female; also where the calculus has attained a very large size; also where the prostate gland is enlarged, unless

the calculus be of very small size.—Sir P. Crampton, p. 266.

PROSTATE GLAND—Enlargement of.—Charge a bougie with iodine, or iodide of potassium, and then dip it into melted tallow, so that a coating may be formed upon it; then introduce it up the urethra to the part desired, and let it rest upon it until the tallow melts, and the iodine, &c., comes in contact with the diseased part. The preparation of iodine must at first be very mild; a grain of iodide of the drachm of lard, gradually increased in strength as the patient can bear it, to two, three, four, five, and even ten grains, or a scruple to the drachm; after this, add iodine to it, half a grain, gradually increased. The bougie must be introduced with great care.—Mr. Stafford, p. 273.

Affections of the Organs of Generation.

SYPHILITIC AFFECTIONS.—(Chancre)—Wash the part well with warm water, and then apply the solid nitrate of silver; it will completely destroy the affection, if not more than three days' standing. If it be a pustule, evacuate its contents, and the walls of the pustule are to be well cauterised. When there is a chancre of the frenum, it is more readily healed by dividing it, and cauterizing the whole of the divided surface. To check discharge, apply a solution of pure tannin.—two grs. to the ounce of water; or sulphate of zinc solution, in private practice, as the former tells tales by staining the linen. The caustic should be reapplied as soon as the eschar is removed, or about once in twenty-four hours. If lint have been applied after the caustic, take care to soak it well before you remove it, or the eschar may be detached, and the part made to bleed. If the case be seen early, one or two burnings will suffice; if at a more advanced period, it must be repeated at intervals of twenty-four hours—for a week or ten days, or as long as we consider any virus is secreted by the sore, which is known by the ulcers remaining stationary, and the surface being covered with a yellow pellicle; when becoming healthy, granulations spring up and the sore heals. Caustic is not so efficacious when the chancre is situated on the frænum, orifice of the urethra, around the prepuce, or on the fourchette in the female;—enjoin rest and strict attention to cleanliness, and avoid rupturing the cicatrix. (Acton, p. 274.)

BOBOES.—Apply a blister the size of a crown for twenty-four hours, then raise the cuticle, and apply a pledget of lint of corresponding size, well saturated with a solution of bichloride of mercury, (a scruple of the salt to one ounce of *spt. vini rectif.*); keep it in situ

from two to four hours, and then apply cold applications for some hours; an eschar is formed, which will be thrown off, and the tumour will be dispersed. (Malapert, p. 283.)

GONORRHEA.—Inject the urethra with a solution of copaiba. (Ricord, p. 294.)

CHORDEE.—Give from 25 to 50 minims of the *vin sem. colchici*, for several successive nights, (p. 295.)

Or, *vin. colchici*, ʒij.; *magnes. carb.* ʒj.; iodide of potassium, ʒss.; *aquez.* ʒvss. *M.* ʒj *quartus horis sumend.* Or give a combination of iodide of potass and decoct. *sarze comp.* (p. 295.)

GLEET.—Apply the following ointment, which answers much better than the nitrate of silver: kino, ten parts; sulphate of zinc, one part; lard twenty parts. (Dr. Leroy, p. 290.)

STRICTURE.—DILATATION.—There are three modes of performing dilatation. 1. Slow or permanent; the catheter is left in the urethra and changed every three or four days. 2. Continuous or sudden; changing the catheter every six or seven hours. 3. Temporary or progressive; retaining the catheter or bougie, from five minutes to one hour. Never employ force in introducing a bougie, and when you increase the size do not do it from day to day, but at the same sitting, i. e., commence with that which passed freely the day before.

When a bougie cannot be passed, but the urine flows off, use Dr. Leroy's apparatus for keeping the pressure of a bougie constantly against the part; or press the end of the instrument against the obstacle for a quarter or half an hour daily, and after each sitting, try to pass a small bougie: when these means fail, apply the caustic bougie.

When the stricture produces complete retention of urine, endeavor to pass bougies in conjunction with bleeding, baths, &c.: try the application of tobacco smoke; should these fail, press a small catheter against the obstacle for an hour. Cut down upon the urethra posterior to the obstacle, but should a calculus be there detained, cut through the rectum. If necessary to puncture the bladder, do it through the rectum. *M. Lallemand* cuts down on the strictured part itself. (Dr. Leroy d'Étiolles, p. 286.)

SECONDARY FORM OF SYPHILIS.—Give the proto-iodide of mercury, and should it occasion irritation, in the bowels with diarrhoea, combine it with opium. Let the diet be simple, avoiding all stimulants whether solid or fluid; the diet, however, should not be debilitating but nutritious. Cold and damp air is

very injurious, fresh air is highly necessary. (Ricord, p. 280.)

TERTIARY FORM OF SYPHILLIS.—The characteristic of these symptoms, is their not being transmissible hereditarily. They are manifested chiefly in the subcutaneous or submucous cellular tissue, in the fibrous, osseous, cartilaginous, muscular or nervous tissues, and in organs in their locality. The remedy most to be depended upon is mercury. (Ricord, p. 280.)

PARTURITION, AND DISEASES OF WOMEN.—**Placental Presentation.**—Whenever the condition of the mother permits, turn the child, and extract the placenta. The placenta should never be detached first, unless the danger to the woman is so great from exhaustion, as to render turning hazardous; or, unless there exists some obstacle to the extraction of the child, either from distortion of the pelvis or from tumours.

Neither delivery by turning, nor detaching the placenta, ought ever to be attempted, until the cervix and os uteri will safely allow the introduction of the hand. Until this is the case, strict rest, the application of cold, and the use of the plug, will be required.

Detaching the placenta will be found the best line of practice, 1st, in severe cases of unavoidable hæmorrhage, with placenta previa, complicated with an os uteri so insufficiently dilated and undilatable, as not to allow of turning with safety; 2nd, in many of the cases in which placental presentation is connected with premature labor, and imperfect development of the os and cervix uteri; 3d, when the uterus is too contracted to allow of turning; 4th, when the pelvis or passages of the mother are organically contracted; 5th, in cases of such extreme exhaustion of the mother, as forbid immediate turning or forced delivery; 6th, when the child is dead, and when it is premature and not viable. (Drs. Simpson, Radford, &c., p. 316.)

Galvanism.—This powerful agent may be used to induce or increase uterine action in cases of hæmorrhage, before, during, and after labor; in cases of placenta previa where it is inexpedient to rupture the membranes and turn; in internal hæmorrhage, depending upon uterine inertia. Its effects are instantaneous and much more to be depended upon than ergot, although it is advisable to try the secale first, and it will be found especially useful in those cases where exhaustion is so great as to render it dangerous to deliver the child in the ordinary way.—(Mr. Dorrington.)

In cases of accidental hæmorrhage, in the latter months of gestation, where the os uteri is rigid and nearly closed, and the flow of

blood cannot be arrested by ordinary means and more especially if there be uterine inertia, galvanism will be useful. In applying galvanism, one conductor should be passed up the vagina to the os uteri, in which a moistened sponge is introduced, and the other to the abdominal parietes, over the fundus in order to pass the current through the long diameter of the uterus, or they may both be applied externally in the short axis. The galvanic action should not be continued too long, and should be interrupted, so as to allow the uterus intervals of rest, and so to imitate nature's operations. (Dr. Radford, p. 334.) Galvanism may also be used as a dermnet resort in hæmorrhage during the first months of pregnancy. [Mr. Wilson, p. 336.] Electro-magnetism may be applied in cases of uterine inertia during labor. [Mr. Clark, p. 337.]

UTERINE HÆMORRHAGE.—When danger to life is imminent, give opium freely; five grains for the first dose, and two or three every hour or half hour afterwards, until the pulse becomes distinct, the breathing easier, and the tossing about in bed allayed. At the same time, give warm wine and brandy, and apply heat to the extremities. [Dr. Griffin, p. 338.]

UTERINE HÆMORRHAGE AFTER DELIVERY.—In cases where on previous occasions, there has been hæmorrhage after the birth of the child, prepare an infusion of secale, $\mathfrak{z}\text{ij}$. to $\mathfrak{z}\text{iv}$. of boiling water, and when the child's head has just cleared the external orifice, give half of it [along with the powder]; and when the child is entirely expelled give the remainder. [Dr. Beatty, p. 338.]

Give ergotine in doses of two grains every two hours. It has been found serviceable in cases of uterine hæmorrhage, whether acute or chronic, and dependent on a dynamic or an organic cause.—Ebers, p. 339.

When hæmorrhage becomes alarming after the expulsion of the placenta, turn the patient on her back, and grasp the uterus firmly with the hand, through the abdominal parietes, until it contracts; then take a small bowl or basin capable of holding twelve or fourteen ounces, having a thick smooth edge, and invert it over the body of the compressed uterus, taking care that the whole of it is compressed within the cavity of the basin, which is to be confined in situ with the bandage.—Mr. Harvey, p. 339.

Mr. Pretty has invented an apparatus by which he applies pressure to the abdomen to avert hæmorrhage after delivery; it consists of a central and two side pads, fastened by a strap, and tightened by means of a tourniquet; it is portable and easy of application.—Mr. Pretty, p. 340.

TRANSFUSION.—This should be adopted as a last resource when the patient is sinking. Mr. Brown reports a successful case in which he performed it, where there was the most alarming prostration, but no extraordinary discharge of blood.—p. 341.

FORCEPS, APPLICATION OF, IN OCCIPITO-POSTERIOR POSITIONS.—In these cases the forehead should be made to rotate backwards, and the occiput forwards; i. e., the extraction of the head with forceps should be an exact imitation of the mechanism of the expulsion of the head by nature.—Dr. Simpson, p. 343.

FORCEPS, HOW TO APPLY.—Having ascertained the exact position of the head, introduce the hand, well smeared with lard, within the os uteri; search for, and pass the fingers over the ear, so as to guide the blade over that organ, whatever may be its position. When the instrument is locked do not tie up the handles with tape, as it keeps a degree of pressure on the child's head not consistent with its safety. In acting with the forceps, always bear in mind the different axes of the pelvis, viz., of its brim, cavity, and outlet; therefore keep the handles of the instrument back to the perineum, till some part of the occipital bone has cleared the arch of the pubis, and when this occurs, gradually bring the handles towards the pubis, when the chin will pass over the perineum. The three powers of the forceps are brought into operation, viz., compression, traction, and leverage; but compression ought never to be made beyond diminishing the child's head to three inches, indeed, instruments are seldom constructed to admit of more.—Dr. Wilson, p. 349.

UTERUS, INVERSION OF, FROM SHORT FUNI.—When this occurs, lose no time in separating the placenta from its attachments, and with clenched hand replace the uterus; taking care not to withdraw the hand until the uterus contracts.—Mr. Smith, p. 359.

PROLAPUS UTERI.—Mr. Eagland, surgical instrument maker, of Leeds, has constructed a very efficacious instrument for keeping the prolapsed womb in position.

SPECULUM UTERI.—Dr. Protheroe Smith's new speculum uteri consists of a glass cylinder fitted to an outer one of metal, within which it slides. The inside of the metallic tube is highly polished, the reflecting powers of which are increased by the glass cylinder; the edge of the smaller or uterine extremity, is carefully rounded into a smooth ring, which projects slightly from the inner surface. In its side is cut an oval aperture of about three inches in length and two in breadth, extending to within half an inch of the end of the cylinder. Its other extremity

consists of a rim which projects about a line from the external surface of the tube, having its surface blackened for the absorption of any rays of light, which might otherwise be reflected, and impede the view by the dazzling effects. There is also a corresponding rim to the glass tube, by which it is more conveniently withdrawn from the metallic cylinder.—Dr. Smith, p. 352.

Dr. Adam Warden has invented a new speculum uteri, particularly adapted for examining the posterior lip of the os uteri.—p. 353.

Mr. Ferguson of King's College, has also recommended a speculum uteri, in which the reflecting surface, which is very brilliant, cannot be tarnished with any discharges or lotions. It is a very cheap instrument.—356.

Ricord's speculum uteri consists of two valves, united about the middle point, allowing both extremities to be widely opened; the narrowest part is thus placed at the vulva. To each valve a handle is attached, by which means space is gained, and the light falls upon the interior uninterruptedly, and pressure upon them causes a dilatation of the two extremities which can be maintained, diminished or increased by means of a screw.—p. 481.

MENORRHAGIA.—Give oxide of silver in half grain doses twice or thrice a day. It will be of the most use when the hæmorrhage is of a secretive character, occasioned by local excitement, and not from the rupture of blood-vessels.—Mr. Butler Lane, p. 103.

Give nitrate of silver internally. Argent nit., gr. iij.; aquæ distillat. ℥ij; solve—Give ten drops three times daily, and gradually increase the dose to fifteen drops.—Dr. Ditterich, p. 361.

PRURITUS VULVÆ.—Apply thrice a day to the affected parts, by means of a piece of sponge, the following lotion; Sodæ borat. ℥ss.; morphisæ sulphat., gr. vj.; aquæ rosæ distillat., ℥viii. M. ft. sol. p. 361.

Affections of Joints.

KNEE JOINT.—Inflammation of Synovial Membrane.—Keep the joint perfectly at rest; for this purpose, when the disease is chronic, apply splints of thick leather, one on each side of the joint, keeping them in place with a bandage. Steep the leather well in hot water, so as to make it exactly fit the joint. When the cure is nearly completed, the patient should wear an elastic bandage, so as to allow of a little motion, within certain limits, and the heel of his shoe should be raised a little, to keep the knee slightly bent.

In the acute disease, use general antiphlo-

gistic measures, as well as the local abstraction of blood. After giving a brisk purgative, then give twelve minims of vin. colchici in a saline draught three times a day; in two or three days stop its exhibition, and after an interval of a day or two give it again; it is most useful when there is a gouty diathesis, with lithates in the urine; an occasional purgative is necessary during the administration of the colchicum, and also small doses of blue pill to keep up the secretion of bile which colchicum diminishes. Give mercury so as to affect the system; this may be done not only in the gouty diathesis, but also where there is rheumatic inflammation, and combine it with opium, as in iritis.

In chronic inflammation the same measures as in the acute, only not quite so active; leeches; blisters, apply them in succession, or keep one open with savine cerate; give colchicum as an alternative, two grains of the extract with as much blue pill, every night, and an aperient every third or fourth morning; or give the acetous extract, with calomel and comp. ext. of coloc., every second or third night. Give, also, iodide of potassium in small doses, combined with alkaline remedies. In slight cases, use liniments to the joint, lin. vol. camph. and sp. terebinth.; or olei olivæ ꝑss.; acid sulph., ℥j., and sp. terebinth. ꝑss.; or paint the knee with a solution of iodine. When ulceration of the cartilages is going on; give mercury so as to affect the system, calomel and opium two or three times a day; mere alterative doses will not do; in a few days the pain will be quite relieved.—Sir B. Brodie, p. 185.

Abscess.—Make a free opening, and keep the joint in a state of absolute repose, by means of leathern splints, or by supporting it with pillows and cushions. The articular cartilages will have become absorbed, and recovery by ankylosis is the result; the joint during recovery must be supported with leathern splints: or if the leg be bent on the thigh, use the screw instrument, with splints at the posterior part of the leg and thigh.—Sir B. Brodie, p. 188.

Gouty Inflammation of.—Some of the smaller joints are affected first, and there is seldom much effusion within the joint.—Give a grain of acet. ex. of colchicum, a grain of blue pill, and three grains of ext. of hop. every night, with a gentle aperient every third or fourth morning; after giving these pills for a fortnight, stop them for two months, and then give them a fortnight again, and so on; give also a grain and a half, or two grains of iodide of potassium, with ten or twelve grains of bicarbonate of potash twice a day, for six or eight weeks

at a time. This system must be continued, with occasional intermissions, for one or two years, or even longer. This chronic gouty affection is not in itself dangerous, but it shows a bad constitution, and the person thus affected is liable to other diseases.—Sir B. Brodie, p. 185.

Scrofulous Disease of.—Never abstract blood, nor make use of counter-irritation. Here, as in all diseases of joints, a state of perfect repose is necessary; use the leather splints. As soon as the digestive organs are brought into a proper state, give tonics, particularly chalybeate tonics. To children give the vinum ferri of the old Pharmacopœia, for three weeks, and then omit it for ten days, and so on for several years, so as to improve the weak constitution. If fever be produced, decrease the dose, or omit it altogether for a while; or give the tinct. ferri. mur.; or the syrup of iodide of iron; or the latter and the vin. ferri alternately.—When you have a patient with whom no form of iron will agree, then give quinine, bark, or alkaline solution of sarsaparilla; the latter is very useful to delicate children. Change of air is highly beneficial, the seaside; when the joint has become stiff, do not use force to straighten it; it should be done gradually, by means of a screw apparatus; if an abscess forms in the joint, continue the use of the splints; but have them lined with oil-silk. If the disease have been neglected, or it has been found impossible to save the joint, amputate as soon as possible. If, by examination with a probe, it is found that there be a piece of dead bone within the joint, so that it cannot exfoliate, the sooner the limb is amputated the better. Bony ankylosis takes years for its completion, so that if the limb be bent there will be plenty of time to get it into its proper place.—Sir B. Brodie, p. 190.

Primary Ulceration of the Cartilages.—Keep the joint perfectly at rest, and use setons, issues, blisters, and counter-irritants. The great remedy is mercury; two grains of calomel and one-third of a grain of opium, three times a day, until the gums are affected. Where mercury cannot be borne, give sarsaparilla and iodide of potassium; sarsaparilla should also be given after the course of mercury. Ung. hydrarg. may be rubbed into the thighs where it cannot be borne internally.—Sir B. Brodie, p. 191.

Morbid Alteration of Structure of the Synovial Membrane.—Apply pressure by means of several alternate layers of diachylon plaster and bandage; and afterwards by leathern splints, and a firm bandage; attend also to the general health.—Sir B. Brodie, p. 192.

Loose Cartilages in the Knee.—Remove them by operation; get the cartilage fixed over the outer or inner condyle, and while it is retained in that situation, divide slowly the skin, cellular membrane, fascia, ligaments, and synovial membrane; hold the knife with a loose hand, or the cartilage will be pressed into the joint; lay hold of it with a tenaculum, but should it recede within the joint, never grope for it, but bring the edges of the wound together, and perform the operation at some other time. A valvular operation has been proposed.—Sir B. Brodie, p. 193.

HIP-JOINT, Inflammation of.—Put the patient under mercurial influence. Before commencing treatment determine the probable duration of the disease, as the efficacy of the action of mercury depends much on the stage in which it is used.—Dr. O'Ferrall, p. 194.

DISLOCATIONS.—Instead of using extension by the hands of assistants in reducing dislocations, make use of a little click wheel, fixed to the wall, and a rope attached to it; the extension is not only made more easily, but much more gradually.—Mr. Terrey, p. 202.

Compound dislocation of the Astragalus.—When it is necessary to remove the astragalus, or saw off the end of the tibia, in order to return the bones to their place, never make a fresh incision to effect it, if there is already an extensive wound in another direction; rather amputate the limb at once, the chances of recovery will be so much greater. [Sully.] The late Mr. Colles, of Dublin, was opposed to amputation in compound dislocation of the ankle joint; and when advisable, he thought it best to wait until the symptomatic fever had subsided.—p. 200.

Immobility of the Lower Jaw.—Keep up mechanical extension for a considerable period, gradually increasing it. An excellent instrument for this purpose has been constructed by Mr. Gay, of Leeds, under the direction of Mr. Teale. [See wood cut.]—Mr. T. P. Teale, p. 197.

Affections of the senses.

EYE, Inflammation of.—Acute.—Bleed and give nauseating medicines, purgatives, and low diet, and stimulate the liver, kidneys, and skin, to rid the fluids of pernicious ingredients. In the second stage, to prevent or arrest the consequences of inflammatory action, give mercury or iodine, bark, colchicum, turpentine, &c. In the third stage, when the inflammatory action has subsided, apply belladonna, and give mercury or iodine in smaller doses, and for longer periods

with local stimulation and cutaneous irritation.

When the disease has been treated with mercury, and returns, try depletion and antimonials, with confinement to bed, and low living, for two or three days before you again resort to that remedy. Give tartrate of antimony or James's powder, so as at first to cause nausea, and afterwards diaphoresis. Mercury is the sheet anchor, given so as just to effect the gums; at first, give three grains of blue pill, three grains of compound colocynth powder, and one-eighth or one-tenth of a grain of tartrate of antimony three times a day, for a couple of days; then five grains of blue pill, with the same quantity of antimony, for two days more; and finally five grains of blue pill three or four times a day. If it affect the bowels, add a little opium to it. This produces a mercurial effect upon the system in seven or eight days. Or two grains of calomel and a quarter of a grain of opium may be given every four or six hours, if we wish to affect the system sooner. The length of time we are to continue the mercury must be decided by its effects.

Iodine, turpentine, colchicum, and bark, are valuable where the inflammation is modified by specific disease, or constitutional derangement, or where mercury has already been given, or cannot with safety be used.

From the very commencement of an attack of iritis, extract of belladonna should be used. Mix it with water until it acquires the consistence of cream, and paint the eyelid, brow, and upper part of the cheek with it; let it dry, and then apply it again, and cover it with a little damp linen, and keep it moist by applying a lotion made with two drachms of the extract to eight ounces of the water. If its application be not found comfortable, it need not be applied more than once or twice in twenty-four hours. When its application to the skin does not affect the pupil, drop a little of the solution upon the conjunctiva, even during the inflammatory attack; its effects soon pass off. It is best to apply it in the morning.—Dr. Jacob, p. 308.

In the external forms of ophthalmia, apply an ointment of oxide of silver, a drachm to the ounce. This is very analogous to Mr. Guthrie's black ointment.—Mr. B. Lane, p. 103.

Accidental Cataract.—Two modes of treatment; 1st.—To allow absorption to take place; the inflammation to be reduced by leeches and mercurials, as in internal ophthalmia; apply belladonna so as to dilate the pupil.

2d.—Remove the fluid mass of cataract

by extraction of the lens through a small incision in the cornea, (Barton and Gibson); make the puncture at the temporal margin of the cornea with the extraction-knife, or with Mr. Walker's instrument, which combines the properties both of scoop and knife, and carry the point of the instrument into the pupil, when the lens will be discharged with the aqueous humor.—Mr. Walker, p. 314.

Depression of the Crystalline Lens.—The lens should be disengaged from its capsule in depressing it. To accomplish this, introduce the cataract bistoury through the coats of the eye, about a line and a half from the margin of the cornea; it penetrates the vitreous humor, and forms a breach in it, at the proper place for the reception of the lens when depressed; the point of the instrument directed towards the lens, is to be pushed across the eye to its opposite side, then penetrate the posterior part of the capsule, and, by drawing it outwards, incise it across its middle; then push the point of the needle between the lens and the iris, its flat side placed on the lower part of the lens, and press it backwards and upwards, then shift the point of the needle forwards upon the lens, and this presses it backwards into the breach of the vitreous humor, from whence it does not rise.—Dr. Watson, p. 314.

Wounds of Eyelid.—If a large piece of skin be lost, and the edges cannot be united, subsequent ectropium is avoided by making an incision a quarter of an inch from the edge of the wound, which then allows the edges to be united.—p. 313

Fistula Lachrymalis.—Dilate the nasal duct by means of Morgan's sound and catheter; pass the sound along the floor of the nose, directing its point outwards, until it lies fairly below the inferior turbinated bone, then direct the point of the instrument upwards, and move it gently backwards and forwards along the inferior surface of the turbinated bone, until a little cartilaginous ridge is felt—this is the orifice of the duct; depress the handle of the instrument, and its point glides into the duct. No force must be used, as the bony structures are very delicate; repeat it daily until the resistance is overcome, and then keep the passage clean by injections of warm water. When well, the patient should be taught to pass the instrument, to clear away collections of mucus. This instrument supersedes the use of the style.—p. 312.

SKIN DISEASES—Chronic Eczema of the Face.—Give three or four drops of liq. arsenicalis three times a day, and cover the part day and night with lint spread with

zinc ointment, or with ungu. hyd. precip. alb.; or, give five grains of Plummer's pill every second night, and a saline draught twice a day, giving at the same time a course of Harrogate waters; regulate the diet, avoiding all stimuli. Where the temperament of the patient is irritable, arsenic and cantharides aggravate the disease.

It often attacks the ears of young females in whom menstruation is irregularly performed; this function must be established by the usual means; apply bread and water poultices to the part during the night, and cover it with rags spread over with zinc ointment during the day; and give ten grains of pil. aloes c. myrrh. every second night at bed time. After using these means for a week or two, give five minims of tinct. of cantharides, and thirty of liq. potass. twice a day.—Mr. Erichsen, p. 297.

Eczema of the Scrotum, Penis and Anus.—Cover the parts with lint, wet with lead lotion, and enclose them with oil-silk, in order to keep off the air, and to prevent urine getting upon the part. Give a small dose of hydr. c. creta at night, and a dose of castor oil in a morning; in a few days substitute zinc ointment for the lotion, and give small doses of liq. potassæ, and five grains each of calomel and magnesia, twice a day. If it be of long standing, enjoin a strict diet, abstinence from fermented liquors, salted and heating articles of food, and give 20 minims of liq. arsenici et hydrarg. iodidi twice a day, with five grains of Plummer's pill at bed-time, and apply a mixture of zinc ointment and the ungu. plumbi acetat, to the parts by means of a piece of lint cut to the proper shape. The treatment must be persisted in for a length of time. A little extract of belladonna rubbed down with the ointment, often succeeds in allaying the irritation.—Mr. Erichsen, p. 299.

Eczema of the Scalp—If occurring to a child, otherwise healthy, about the period of dentition, be careful how you check the eruption. Cut the hair, apply bread and water poultices, and subdue irritation by the application of rags dipped in olive oil, or smeared with zinc ointment; or sprinkle the part with the nurse's milk. Give small doses of hydrarg. c. creta and castor oil, and lance the gums, if necessary. Fluid magnesia is often useful. If it becomes inveterate, wean the child on beef-tea, broth, and a nutritious diet, and give mild tonics, a few drops of tincture of ammon-chloride of iron, or iodide of iron, twice a day (from half a grain to two grains of the latter); a great part of the treatment consists in keeping the scalp so covered as to prevent the access of air.

When it becomes chronic and inactive, and presents a furfuraceous appearance, have recourse to gentle stimulants; a lotion composed of from one to two drachms of sulphuret of potass, either alone or combined with an equal quantity of the carbonate of the same alkali, in a pint of plain or of lime water; wash the head with this lotion three times a day; at the same time, every night after the last application of the lotion, apply an ointment composed of from a scruple to half a drachm of carbonate of potass to an ounce of lard, or one of creosote in the same proportion, or of white precipitate; or use the ungu. hydr. nit. dil., or the sulphur ointment, or a mixture of this and tar or creosote ointment. Do not use the oiled-silk cap; it confines the perspiration and soddens the skin, producing a state of passive congestion which we wish to get rid of.—Mr. Erichsen, p. 301.

Chronic Eczema of the Hands.—In the early stages apply water-dressing by means of oiled-silk gloves or finger stalls, and at a more advanced period, a solution of nitrate of silver (grain j. to the ounce), instead of the water dressing; or a solution of carbonate of soda, (grain ij. to iv. to the ounce); or the following lotion: acid hydrocyan., ℥ss.; zinci oxidi, ℥j.; aquæ rosæ, ℥viiij.; or cover the hand with the ungu. hydrarg. precip. alb.; either alone or mixed with citrine ointment.

If the disease only occupy a small patch, cover it with a slice of lemon. Its spreading may be checked by applying the solid nitrate of silver around the part. Constitutional treatment must also be adopted: remove any gastric, intestinal, or uterine disturbance, and give vegetable bitters, nitric acid diluted, or small doses of bichloride of mercury; the two latter may be given in infusion of bark. If the disease be of very long standing, give Fowler's or Donovan's solution. The hands should be kept at rest.—Mr. Erichsen, p. 304.

Chronic.—Apply tar externally; give it also internally in capsules.—p. 305.

Pityriasis.—External applications of a soothing nature; baths medicated with mucilage of linseed, milk, yolk of egg, &c.; at the same time give demulcents, diuretics, &c., to increase the renal secretion. Cover the parts over with glycyrrhine; it remains fluid, and resists evaporation under any temperature to which the body is exposed. It is abundant in the refuse of the soap-maker.—Mr. Startin, p. 306;

Itch—Immerse the hands of the patient in an alcoholic solution of stavesacre for half an hour together, two or three times, and the *acarus scabiei* will be destroyed. [Dr.

Burgess.] Use a lotion made of an ounce of sulphate of copper to a pint of water; wash off the scabs before using it. It is an almost certain cure. [Mr. Lloyd.] Use a lotion of iodide of potassium in the day, and sulphur ointment at night; a cure may be expected in seven days. The lotion should be ℥i. of iodide to ℥viiij., or ℥xvj. of fluid.—Dr. Ward, p. 307.

Warts.—Apply hydrochlorate of ammonia dissolved in water, or hydrochlorate of lime; persist in their application for some time.—p. 308.

Syphilitic Alopecia.—Cut the hair close, and use warm baths; and then apply the following liniment: Equal parts of rectified spirit, Eau de Cologne, and castor oil; or equal parts of honey-water and tinct. of cantharides. Should little red spots or blisters be produced, cease the application for a short time.

Lichen, Lepra, Psoriasis, Impetigo, &c.—Frequent warm baths, taking care to soak the head well; and cover the spots night and morning with olive oil, ℥ss.; citrine omit. ℥i.; M. Make a liniment, or use the following ointment: purified beef marrow, sixteen parts; sulphur ointment, sixteen parts; trypeth mineral, two to four parts; essence of lemons sufficient to scent it—Ricord.

Mucous Tubercles.—Use a dilute solution of chloride of sodium; dry the parts and sprinkle them over with calomel.—Great cleanliness is necessary; do not use ointments.

Eczema Impetiginoides.—Cut the hair close, and apply water dressing, or lint dipped in an aqueous solution of opium; do not apply ointments. It should be a rule never to apply greasy substances to any eruption attended with oozing of fluid, since it mixes with the secretion, becomes rancid, forms a crust, the edges of which become excoriated, and what was an effect becomes a cause of irritation. Paint gummata and nodes with tinct. of iodine: it may also be applied to unhealthy tertiary ulcers.

Give internally, in secondary forms of syphilis, iodide of potassium or mercury; some prefer the former, as Dr. Williams, others the latter, as Sir B. Brodie. The following should be our guide in giving the iodide of mercury: Secondary symptoms occurring after a course of mercury, will be benefited by a course of iodide of potassium. Secondary symptoms occurring where mercury has not been used, will not yield to the iodide, but will to mercury. In order to prevent the iodide from causing pain at the pit of the stomach, or heat at the back of the throat soon after swallowing it, dis-

solve two drachms in three ounces of water, and let the patient take a teaspoonful of this solution night and morning in a large cup of tea, and the same quantity in half a pint of beer, or other fluid, at mid-day; the dose to be continued, and increased according to circumstances. It is of no use increasing the dose, or indeed of continuing this remedy beyond a week or ten days, if no amendment is visible. If mercury has not been given for the primary symptoms, begin with it immediately when secondary symptoms appear. Ricord gives the pure mineral, but the hydr. c. creta will answer best. If the organs of digestion be impaired, use friction; direct the size of a horse bean of ung. hydr. to be smeared on the inside of each calf of the leg every night; do not rub it in, as you irritate the hair bulbs by doing so, and you produce subsequent tenderness. Direct your patient to sleep in old drawers, so as to keep the bed clean. Do not use the ointment to the thighs, as is usually recommended; it gets between the thigh and the scrotum, producing eczema; it also dirties the patient's linen, and excites the attention of the washerwoman. Get the patient firmly under its influence, before you discontinue the use of mercury.—Acton, p. 274.

Toxicology.

Poisons.—Purified Animal Charcoal, an Antidote to all Vegetable and some Mineral Poisons.—This substance may be used as an antidote to opium and its active principles, morphia, &c.; nux vomica and its active principles, strychnia and brucia; henbane, deadly nightshade, bitter-sweet, thorn apple, tobacco, hemlock, bitter almonds, prussic acid, the aconites, &c. &c., in fact to all vegetable poisons; to animal, also, as cantharides. The carbo animalis purificatus of the pharmacopœia should be used, and in the proportion of half an ounce to a grain of morphia, strychnia, &c. It combines with and renders inert vegetable and animal substances, and absorbs some mineral poisons, especially arsenic, and renders them harmless, and exerts no injurious effects on the body.

It should be rubbed in lukewarm water, so as to form a fluid of slight consistency, and thus given in quantities of from one to four ounces. Emetics also should be given; ipecacuanha, however, will not do, as the charcoal renders it inert. Give sulphate of zinc in scruple or half drachm doses, or use the stomach pump, and then give more of the charcoal.

Might not this substance be tried to prevent the injurious effects of animal poisons, such as rabies, syphilis, poison of serpents,

&c., applied in the form of poultice to the parts?—Dr. Garrod, p. 142.

Prussic Acid, Poisoning by.—Dash cold water on the patient; apply ammonia to the nostrils, and heat to the spine and feet; give an injection containing tincture of assafœtida, use friction with a flesh-brush to the skin; and as soon as the jaws become relaxed, and the patient can swallow, give an emetic, and afterward some weak brandy and water, and strong coffee.—Dr. Gray, p. 145.

Cause the patient to inhale the fumes of ammonia, when he has ceased to be able to swallow.—Mr. Hicks, p. 146.

Opium, Poisoning by.—After the stomach has been well evacuated, should the vital energies sink, make use of electro-magnetism; pass the current through different parts of the body, and gradually increase its power until it reaches its maximum intensity. Continue its use for a considerable period, until sensibility is not only evident but complete.—Mr. Colahan, p. 153.

Materia Medica and General Therapeutics.

AQUÆ COPAIBÆ VEL CUBEÆ.—1. Oil of copaibæ, or cubebs, two ounces; water, five gallons and a half: draw over from three to four gallons. 2. Oil of copaibæ, or cubebs, two ounces; magnesia carb., six drachms; rub together, and add four gallons or less of water; filter.

Saccharised Caustic Solution of the Oils of Copaiba or Cubebs.—Oil of copaibæ, or cubebs, one drachm; caustic potash or soda, half an ounce; white sugar, six drachms. Twenty-four ounces of water to be added gradually.

Saponiform Solution of these Oils.—Oil of copaibæ or cubebs, two ounces; caustic solution of potash or soda, one ounce. Rub together in a mortar, and add water as may be required.

These forms are not attended with the gastric and nephritic irritation usually met with while administering copaibæ or cubebs.—Dr. Cattell, p. 294.

BROMINE, a substitute for Iodine.—Where it is wished to substitute bromine for the tincture of iodine, use bromine one part, distilled water forty parts, and give from five to six drops in some aqueous vehicle three or four times daily; for external use, make the solution four times as strong as this.

Bromide of Potassium.—Dose from four to eight grains three times a day; for an ointment, rub four parts with thirty-two parts of lard.

Bromide of Barium.—Dose from one to five grains three times a day.

Bromide of Calcium.—Dose from three to ten grains in a pill with conserve of roses.

Bromide of Iron.—Dose from one to three grains in a pill, with conserve of roses and gum arabic.—p. 172.

DIGITALINE.—This substance may be given wherever digitalis is indicated; its advantage is, that it can always be exactly known what quantity of active principle is being employed.—p., 173.

STRAMONIUM CIGARS are said to be a good remedy for asthma.—p. 174.

AMPUTATION at the Middle of the Leg.—The mortality attending the operation performed just below the knee, is much greater than that lower down; it is also much more painful and not so easily performed; whilst in the latter case there is insured to the patient the use of the knee-joint. The two best methods of amputating the leg below the knee, are by the double circular and anterior and posterior flap operation. In doing either, take care to leave sufficient muscle to cover the bones; and in the latter operation, the anterior flap, composed entirely of skin, should be at least half a diameter in length, and the projecting ridge of the tibia should be pretty deeply sawn off in a slanting direction. The middle of the leg, or just below it, is the best point at which the bones can be sawn.—Dr. Lawrie, p. 202.

Venous Hæmorrhage during Amputation.—Apply a bandage from the extremity of the limb nearly to the point at which it is to be amputated; it must be applied carefully and exactly, and with all bearable firmness.—Dr. Hannay, p. 205.

Circular Amputation.—Let an assistant dissect back the skin on one side, whilst the operator does the same on the other; this shortens materially the most painful and unseemly part of the operation.—Dr. Hannay, p. 206.

Sutures after Amputation.—If the parts will not meet without dragging or putting on the stretch, do not use sutures, and never pass them through the muscular structure.—Dr. Hannay, p. 206.

First Dressing after Amputation.—Give thirty or forty minims of laudanum before the first dressing after amputation, particularly of a large extremity; it alleviates the shock which the nervous system is sure to receive; give it half an hour before the dressing.—Dr. Hannay, p. 206.

ULCER.—To an irritable ulcer apply oxide of silver in the form of ointment of powder.—Mr. Butler Lane, p. 103.

SORE NIPPLES.—Apply ung. argenti oxid. ʒi. to the ounce.—Mr. Butler Lane, p. 103.

[For the N. Y. Director.]

REVIEW.

“**MESMER AND SWEDENBORG; or the Relations of the Developments of Mesmerism to the Doctrines and Disclosures of Swedenborg.** By George Bush, New-York. Published by John Allen, 139 Nassau-st. 1847.”

The position assumed in this work is this: “If Mesmerism is true Swedenborgianism is true.” I am a believer in Mesmerism, but, as I cannot admit the claims put forth in this work, with your permission I will state a few of my objections; and, in doing this, I propose to show, that Professor Bush has misapprehended, not only what he calls the “Mesmeric phenomena,” but, Swedenborg himself, and, consequently the inferences he draws from the latter, when contrasted with Swedenborg’s state, are unfounded, and likely to mislead those who believe what he has said about them in this work.

I. As to the state of Emanuel Swedenborg. The Baron’s own account of himself is as follows:

“There are two kinds of visions, differing from those which are ordinarily experienced, and which I was let into, only that I might know the nature of them, and what is meant by its being said in the word that they were taken out of the body, and that they were carried by the spirit into another place. As to the first, viz., the being taken out of the body, the case is this: man is reduced into a certain state, which is mediate between sleeping and waking; when he is in this state he cannot know but that he is wholly awake, all his senses being as much awake as in the most perfect state of bodily wakefulness, not only those of sight and hearing, but what is wonderful, that of touch, also, which is then more exquisite than it is possible for it to be in bodily wakefulness. In this state, also, spirits and angels are seen to the life, and are also heard, and what is wonderful, are touched. scarce any thing of the body then intervening. This is the state described as being “taken out of the body,” and in which they know not whether they are in the body or out of the body. I have only been let into this state three or four times, just in order that I might know the nature of it, and that spirits and angels enjoy every sense, even touch, in a more perfect and exquisite degree than that of the body. As to the other kind, viz., the being carried by the spirit to another place, the nature of this, also, was shown me, by lively experience, but only twice or three times. I will merely relate

the experience. Walking through the streets of the city, and through the country, and being at the same time in discourse with spirits, I was not aware but that I was equally awake and seeing as at other times, consequently walking without mistaking my way. In the meantime, I was in vision, seeing groves, rivers, palaces, houses, men, and other objects; but after walking thus for some hours, on a sudden I was in bodily vision, and observed that I was in another place. Being greatly amazed at this, I perceived that I had been in such a state as they were of whom it is said, that they were carried by the spirit to another place. It is so said, because, during the continuance of this state there is no reflection on the length of the way, were it even many miles; nor on the lapse of time, were it many hours or days; nor is there any sense of fatigue; the person is also led through ways which he, himself, is ignorant of, until he comes to the place intended. This was done that I might know, also, that man may be led by the Lord without his knowing whence or whither.

"But these two species of visions are extraordinary, and were shown me, only with this intent, that I might know the nature and quality of them. But the views of the spiritual world, ordinarily vouchsafed me, are all such as, by the divine mercy of the Lord, are related in the first part of the present work, being annexed to the beginning and end of each chapter.—These, however, are not visions, but things seen in the most perfect state of bodily wakefulness, and now for several years."—A. C. 1882-1885.

From the above it is plain—

1. That Swedenborg means to be understood that his ordinary state, in which he says he conversed with spirits, was his normal, waking state.

2. That he was "let into," and "out of" two other states, which were both "extraordinary," and in both of them he had not the use of his "perfect consciousness," as in the waking state. He says, in one of them, he was "reduced into a certain state which is mediate between sleeping and waking," and in which he did "not know" but that he was "wholly awake," and when he did "not know whether he was in the body or out of the body."

Speaking of the other "extraordinary" state, he says he was ignorant of its nature at the time; he "was not aware but that he was equally awake," and he was "led through places of which he himself was ignorant of," till he came to the place intended.

From the above it is evident, that Swedenborg, according to his own account, was some five or six times in an abnormal state, in which he was not in the "perfect possession" of his waking "consciousness."—These states I suppose to have been somnambulate, or so very much like those states denominated "mesmeric," that it would, perhaps, be impossible to show any difference between them, especially when the somnambulo or transic state, comes on spontaneously, as we know it often does.

The conceptions that Swedenborg says he had of the spirit world, in his normal, waking state, are to be accounted for by a knowledge of the innate and constitutional tendencies of his own mind. His organs of "wonder" were enormously large, as may be seen from his busts, and the portraits, published of him. In addition to this, there are conclusive reasons for believing that these organs were not only abnormally developed, but they were, consequently abnormally excited, and hence he dwelt so constantly in the regions of the "wonderful," and made so frequent use of this term in describing the things which he says he "saw and heard." That the phenomena of different minds are to be accounted for in this way, see the writer's "Theory of Pathetism" published in the present No. of the New-York Dissector.

Now, that Professor Bush has misapprehended, and consequently misrepresented the case of Swedenborg, the following extract from his book will show:

"The point at issue can only be determined by presenting the ordinary characteristics of the mesmeric state by the side of those which distinguished the case of Swedenborg. His state was not a state of sleep—nor was it marked by the least absence of recollection upon coming out of it, if indeed there was any such thing as coming out. On the contrary, he was in the perfect possession of his consciousness during the whole time. Unlike the magnetic seers who are in a state of internal, but not, at the same time, of external consciousness, Swedenborg was in both at once. His prerogative was the opening of a spiritual sight which left him still in the full enjoyment of his natural sight.—Page 23-24.

The reader will see in the above, a flat and palpable contradiction of the account which Swedenborg has given of his own state.

1. The Professor asserts that Swedenborg was not in a state of "sleep" at all. Swedenborg says he was "reduced into a certain state which is mediate between sleeping and waking."

2. Prof. B. thinks there was no "such thing" as "coming out" of any peculiar state, with Swedenborg. The Baron himself speaks of being "let into" certain states, and of coming out of them, for afterwards, he says "he perceived that he had been in such" states.

3. Prof. B. says, on the part of Swedenborg, "there was no absence of recollection." The Baron affirms to the contrary, when he says, he had "no reflection," and did not recollect whether he was "in the body or out of the body."

4. Prof. B. says Swedenborg was in the "perfect possession of his consciousness during the whole time." The Baron says, of himself, that he was some of the time, half sleep, as it were, in a state that was "mediate between sleeping and waking," a state in which he was not "conscious, whether he was in the body or out of the body."

5. Prof. Bush contradicts himself in the further accounts, which he gives of Swedenborg's states. He says:

"It is obvious, that Swedenborg's extatic state was of a vastly higher order than any that come under the ordinary denomination of Magnetic or Mesmerism."

"Swedenborg recognizes an immense difference between the power with which he was gifted, and that which is developed in the case of ordinary clairvoyance. He speaks with the knowledge of one who had experienced both; for he tells us that, although he was three or four times "let into" what was virtually the magnetic state, it was only that he might know the nature of it, while his ordinary state was incomparably more elevated."

Thus, it will be seen, the Professor not only contradicts Swedenborg's account of himself, but he contradicts his own account of him; and not only so, but he asserts a philosophical absurdity or impossibility, in what he says:

(1) If Swedenborg was "let into" the mesmeric state, then the Professor's representation that there was "no such thing" as his passing into, or "out of" it, is not to be reconciled with the above admission.

(2.) He represents Swedenborg as having been in two different and perfect states, at one and the same time. He was in "both at once!" How could one mind be in two perfect states, at one and the same time?

6. Professor Bush is at fault, also, when he represents Swedenborg's state as being "vastly higher" than those of "ordinary clairvoyance." So far from this, it is not true, that one of Swedenborg's so called "visions" has the testimony of a single witness, to prove its reality. But Prof. B. has

given numerous cases of clairvoyance, that are proved by multitudes of competent witnesses who were present, and tested in various ways, the truth of the clairvoyant descriptions.

The mesmeric clairvoyant descriptions (not of spirits but) of real objects of sense, without the use of the eye, quoted by Prof. Bush, are proved by competent witnesses who were present at the time; but not so with Swedenborg's "visions;" and hence, instead of Swedenborg's state being "vastly higher," it was far below that of any well attested case of clairvoyance.

So much for the Professor's account of Swedenborg. I now proceed to show—

II. That Professor Bush is equally at fault in his assumptions with regard to "Mesmeric Phenomena."

His assumptions with regard to these phenomena are thus set forth in his own words:

"The reports of clairvoyants whenever they touch upon the marvellous things of the spirit-world, are usually found to be in marked analogy, so far as they go, with what Swedenborg himself says in regard to the same class of subjects.—Page 23.

"Persons thrown into the Mesmeric trance, invariably make the same report, as far as their perceptions extend, that Swedenborg does in regard to the laws and realities of the spiritual sphere, however ignorant beforehand of his disclosures."—Professor Bush's Statement of Reasons, &c., page 73.

On the above I remark:

1. That the only way in which Professor B. could demonstrate the truth of what he here asserts, would be, by collecting accurate reports of a majority of all the mesmeric reports that have ever been made of the so called "spiritual sphere." This, he has not done, and I venture to say, it is what he will never attempt to do, even if the thing were supposed to be possible.—And, if he were to collect a majority, or even a small proportion, of such "reports" which have been made in different parts of the world, it is by no means certain or even probable, that they would bear him out in his assumptions.

2. As the case now stands, none of the cases quoted by Prof. B. can help him at all, because it has been shown that he himself does not rightly apprehend Swedenborg's state or states; and hence, he cannot show how far the "mesmeric phenomena," agree, or disagree with Swedenborg's states.

3. As a matter of fact, it is by no means true, that persons in the "mesmeric trance" "invariably make the same reports," that "Swedenborg does in regard to the spiritual

sphere." My own observation is decidedly against this representation. Out of some three thousand natural somnambulists and "mesmeric subjects" whom I have examined more or less, I have not found any two who invariably made reports alike, about any other state of existence besides the present. When they speak of another state of existence, they give various accounts, which are changed, from one time to another, according to the state of the patient's brains, and the surrounding circumstances at the time.

4. The "reports" of Jackson A. Davis, (who, as Professor Bush himself asserts, "possesses both physically and mentally, in an eminent degree, the requisites for a clairvoyant of the highest order,") do not agree with Swedenborg's so called "disclosures." Speaking of Davis, Professor Bush says:

"In this state, I do not perceive that there is any definable limitation to his power of imparting light on any theme of human inquiry. The range of his intuitions appears to be well nigh boundless! Indeed, I am satisfied, that, were his mind directed to it, he could solve any problem in any science."

Now, it is susceptible of the clearest demonstration, that this same remarkable and most extraordinary clairvoyant, contradicts, not only what Swedenborg has taught in relation to "life," the human "mind" and "vital heat," but, also, the account which Swedenborg has given of the spirit world.

A pamphlet has been published, containing what purports to be "All the Mysteries of Human Magnetism and Clairvoyance explained," in four lectures "by the celebrated Jackson Davis." These lectures purport to have been uttered by Davis in a state of clairvoyance. A few quotations will show wherein he contradicts Swedenborg. Page 16, he says, "Mind is the principle of all life and animation." Swedenborg says, (intercourse soul and body, 21.) that "love, together with wisdom, is life." Davis says, (page 21), that "Magnetism is animal heat." But Swedenborg says, (Int. Soul and Body, page 11.) that "vital heat of men is from no other source, than from love.

Davis says, (page 15), that the "breath of life" which God breathed into man, is his "mind."

Swedenborg says, (Ib. p. 23,) that the human mind is constituted by "understanding and the will."

Davis says, (page 15,) the "breath of life" constituted the living soul."

Swedenborg says, (Ib. p. 14,) "the soul is not life in itself."

The above, with numerous other contra-

dictions of Swedenborg, may be found in Davis's book, and which were uttered in a "state of clairvoyance," a state of which Davis himself says, (page 36) "when in the state (of clairvoyance) that I now am, I am master of the general sciences—can speak all languages—impart instructions upon those deep and hidden things in nature, which the world [not excepting Swedenborg of course,] have not been able to solve, as I have done in these lectures, can name the different organs in the human system—point out their office and functions; and, as I have often done, tell the nature, cause, and symptoms of disease, and prescribe the remedies that will effect a cure."

And here let it be remembered that Professor Bush has endorsed for the pretensions of Mr. Davis; he is "satisfied," he tells us, "that, were his mind directed to it, he could solve any problem in any science!" Very well! We have seen how his mind has been "directed" in a "state of clairvoyance," to a few things in natural science, and in which he contradicts Swedenborg; and I will now show that, according to Professor Bush's own account, in his book, Davis has had his mind "directed" to Swedenborg, and has given an account of him, which flatly contradicts Swedenborg's representations of the spirit world!

Swedenborg says that the spirits or angels were once men, (A. C. 4227,) and hence Swedenborg's spirit is now an "angel."—He has further said, (H. & H. 237,) "That it is impossible for the angels to utter one word of human language" "Angelic language has not any thing in common with human language."

Now, on turning to Professor Bush's work we find more than fifty of its pages devoted to the exhibition of what he represents as a "supernatural" communication, which he, (Prof. B.) received from Davis, in which he (D.) gives an account of an interview he says he had with the spirit of Swedenborg on the 15th of June, 1846. In this interview, he addressed Swedenborg in the English language, and he also received "impressions" from Swedenborg's spirit, which are stated in English. Davis not only addressed Swedenborg in English, but he tells him how his "eye" looked, and describes what Swedenborg had taught in some of his writings, which he (D.) says he never read. Without attempting to show, as I might do, that Davis may have read Swedenborg's writings when he was in an abnormal state, and consequently not be able to recollect any thing about it, it will be sufficient to refer to the fact above shown, that in this assumed "supernatural revelation" of which

Prof. B. makes so much, Davis has completely overthrown Swedenborg's "disclosures" about the laws which govern the angelic world, because the communications which Davis says passed between himself and Swedenborg, were in "human language," and hence Swedenborg's representations, that angels could not converse in "human language," is not true! From this conclusion there is no escape.

5. It remains for me to show that Professor Bush begs the question from beginning to end, in what he says about "phantasies" being "transferable" from one mind to another, precisely in the manner stated in Swedenborg's writings. The Professor knew that many of what are called the "mesmeric phenomena," are mere phantasies, mere creations of the fancy. These, of course, would not prove the truth of Swedenborg's visions; and so the Professor takes it for granted, that these vagaries of a disordered brain are accounted for in what Swedenborg says of devils in another world!—Nay, that when Swedenborg describes devils throwing serpents and binding with cords, he had in view, precisely, what has often taken place in the form of "mesmeric phenomena!"

It seems never to have occurred to Prof. Bush, that his numerous quotations from Swedenborg and writers on Mesmerism, would amount to just nothing at all, till he had first proved that Swedenborg did ever really see one devil, and that he ever actually saw the devils do all he describes!—And had he done all this, I would then show that there is another—a far better way for accounting for cerebral action, and the mental phenomena that follow, than by attributing them to devils, as Swedenborg did his toothache.

But it would swell this article to an undue length to notice all the objectionable features in this book. With a certain class of minds, like that of Swedenborg and the Seer of Provorat, it will doubtless gain admirers, while those who are at the trouble to test its claims, in the light of unperverted reason, will agree, I doubt not, in classing it with the pure offsprings of "wonder," which have appeared and disappeared in preceding ages of the world.

LA ROY SUNDERLAND.

New-York, Dec. 11, 1846.

On the Internal use of Lime in Fractures,
WITH INSTANCES OF ITS SUCCESSFUL EMPLOYMENT.

Sir:—Will you have the kindness to insert the following account of the use of lime in fractures? Should you or any of the pro-

fession wish for further information, I shall be most happy to give it; and if any are induced to try the remedy, shall feel obliged by their letting me know the result

I am, Sir, yours respectfully,

T. S. FLETCHER.

The following accident first gave rise to my using lime in fractures:—A favorite Canary had its leg broken, and this brought to my recollection, that, when a boy, I saw at a farm-house some eggs without shells, and was told they were laid by a fowl with a broken leg; and, as it was natural to suppose the lime went to supply the fracture instead of forming the shell, I was induced to give the Canary a good supply of lime, (egg-shells,) hoping it would facilitate the bony deposit. It exceeded my utmost expectations; for after having been told by a bird-fancier that it would be three weeks before union could take place, I found, on the sixth day after the accident, the bird had not only got the leg loose, but feathered or scratched its head with it. It required a few more days before it could stand on the broken leg, and feather itself with the sound one. Since then, I have given lime in fractures, in the form of burnt bone, prepared chalk, and lime-water. Of the burnt bone and prepared chalk I gave a scruple, three times a day, in the form of chalk mixture, and the lime-water as a common drink, sweetened and flavored with lemon-peel. I have found chalk and burnt bone equally efficacious.

The following are among the cases in which I have used lime:—

CASE 1.—George S—, aged eight years, fracture of the upper arm by a fall on the elbow when running. In eight days he could move the arm, so as to satisfy any one that union had taken place; and in fourteen days it was sufficiently firm for him to raise and support the arm. In five other cases of fracture of the forearm, I have used lime with equal success—the ages of the patients varying from ten to thirty.

CASE 7.—Levi J—, aged ten, broke his leg at the lower third by, jumping off a high wall. In eight days he could rotate the foot, and get about with splints on; and in fourteen days he could raise it, and bear the weight of the foot.

CASE 8.—William C—, aged twenty-eight, had a compound fracture just above the ankle-joint, from the bursting of a cannon. On the tenth day, he could rotate the foot, on the sixteenth he could raise it, and on the twenty-eight, he was at work again in the shop as a nailer.

CASE 9.—Richard H—, aged forty-eight, broke his leg at the lower third by falling down some steps with a tub. On the tenth day he could rotate the foot, and with the splints on, could move it about, and on the twenty-first could raise it.

CASE 10.—Richard D—, a boat-boy, aged sixteen. Fracture of the thigh from the kick of a horse. Was twenty-one days before he could rotate the leg, and thirty ere he could raise it. I attribute the length of time required in this case to his being a poor delicate boy, in a very bad state of health.

CASE 11.—Thomas M—, aged ten.—Fracture of the thigh, by falling off a bank with a boy on his back. He was in very good health, and in seven days could rotate the limb, and in fourteen, raise it.

CASE 12.—B—, aged fifty-two.—Compound fracture of the leg, about the middle of the calf, by the falling over of a railway engine. There was a wound of about four inches on the inner side, and one of an inch on the outer side of the leg. He was also much crushed about the pelvis and abdomen, and inflammation of the bowels followed on the second day. This prevented the use of lime during the first week.—He afterwards took it, and on the seventeenth day from the time of the accident, could rotate the foot, and in twenty-eight, could raise it.—*Lancet*.

The Stupifying Gas.

For some years past, numbers of surgeons (chiefly those of the Dental Art,) have occasionally used a number of the gases, for rendering their patients insensible to pain. At first, I believe, nothing more than the nitrous oxide was used, but as this generally produces exhilarating effects, another kind was sought by which persons could be stupified, sufficiently to render them insensible to pain, while surgical operations were performed upon them. Mr. Wells of Hartford, Conn. and Mr. Flagg of Boston, Mass., affirm, that they have, for some time, been in the habit of using sulphuric ether, with great success for the above purpose.

Various reports have appeared, recently, in the papers, in relation to the claims of discovery put forth by Mr. Morton of Boston, in which he assumes to have originated in connection, with Dr. Jackson of the same city, the use of a gaseous compound, which he calls "Morton's Lethæon," and by which very good results are said to have been produced. Mr. Wells, however, of Hartford, tells us, that he used the same, "long time

ago," and that he communicated this fact to Messrs Jackson & Morton long before they pretended to any such discovery. And, Mr. Flagg, also, has published accounts of his having operated with pure sulphuric ether, before Mr. Morton made his discovery, and he supposes that Mr. Morton uses the same, and nothing else. Quite a number of cases have been reported, in this city, in which this gas has been used, it is said, with more or less success. From all that I have witnessed, myself, and heard on this subject, I come to the following conclusions:—

1. In a large number of cases, sulphuric ether, may be used with good results in ordinary surgical operations. But, it is not, and cannot be made available, in a larger number of cases, than that influence generally known under the term of "Mesmerism." When, for want of time, or, for other reasons, mesmerism cannot be applied, the gas may be used.

2. There is, as a general thing, as much if not more, uncertainty, in the results produced by the gas, than can be affirmed of mesmerism. I have seen the gas administered to six different persons, only; and in every one, it was a decided failure.

In each of the reports I have seen in the papers, cases are mentioned, in the proportion of about one third, which were failures. And, when the gas is represented as having been perfectly successful, it is said, the patients were more or less conscious, all the time, though not sensible of pain.

3. It would seem quite impossible to secure a state of insensibility for any length of time, by the gas, alone. Its force is exhausted in a very short time. Hence its use, might, in some cases, be attended with danger, because, the patient might come back to a conscious state, before the surgical operation was half completed.

From the above it is plain, that in cases where "Mesmerism" can be applied successfully, it is far preferable, and, for obvious reasons.—

(1.) In cases where mesmerism is available, patients may be rendered wholly unconscious, while difficult and protracted, surgical operations are performed upon them. I have had more than five hundred cases of this kind, mostly extracting teeth, when the patients were unconscious, during the whole of the operation, and so much so that no change could be noticed in the pulse.

(2.) The gas cannot be depended upon, in cases of protracted operations. Its force is spent in a few minutes, and should a patient come to consciousness, after being stupified with the gas, while under the knife, it might be at the peril of life! But this danger could

scarcely occur in a case where the patient was properly magnetised.

(3.) Another reason which places magnetism before the gas, is, the latter does sometimes, leave the system in a disturbed, unpleasant condition. A gentleman took it in Brooklyn, a few days ago, and he has been indisposed ever since, and I have known of other cases where persons have been injured by it, while I have never known or heard of a case where any one was injured, in the least by magnetism, when it was applied for rendering persons insensible to pain.

It is worthy of remark, how ready some of the medical faculty appear to be, in welcoming the use of the gas, who have so strenuously opposed the practice of mesmerism. The "gas" they hail as a great discovery, and some of the papers are quite ready to publish accounts of the surgical operations performed on persons, who had taken it; but, these same papers, scout the idea, of a person's being rendered insensible to pain, by mesmerism.

Finally, I have no doubt, but that the stupefying gas will have a "good run," for a while, when it will fall into comparative neglect, and be used in a few cases, only, especially where magnetism is well known. Indeed, thus far I believe it will be found, that the gas has been successfully applied, only, in those cases where the patients were of that temperament which renders them the most susceptible of the mesmeric influence; and in such cases we know, they may be rendered insensible to pain, much better without the gas than with it.

LA ROY SUNDERLAND.

N. Y. Dec. 23d. 1846.

On the Treatment of Gonorrhœa with Nitrate of Silver.

BY C. D. ARNOTT, M. D., M.R.C.S., & L.S.A.,
GORLESTON.

My paper, published some months since in "The Lancet," on the "Ectrotic or Abortive Treatment of Gonorrhœa," has been noticed by Mr. M'Donald, of Bristol, between whom and myself there appears to be complete accordance in the principal fact, viz. the efficacy of nitrate of silver as a remedial agent in gonorrhœa. On two points, however, we differ, namely, "the cases in which this remedy is most efficacious," and "the best mode of its exhibition."

In the paper alluded to, I advocated the employment of a strong injection of the salt for the attainment of a particular object, that of arresting the disease while yet in its crescent stages, and so preventing the acces-

sion of purulent urethral discharge, which constitutes true gonorrhœa. Experience had taught me that the remedy possessed such power; experience and theory conjointly strongly dictated the propriety of limitation of the remedy within this range of applicability, and I accordingly stated, that the supervention of purulent discharge must indicate the inapplicability of the injection, and the propriety of consigning the case to the ordinary tedious treatment.

The disease having advanced so far as copious purulent elimination, renders ectrosis unwarrantable. Sudden arrest of the discharge, far from being expedient, is, of all things, most likely to prove untoward; to effect it, therefore, should certainly never be attempted. If it occur spontaneously, more especially if it be artificially coerced, aggravation of the original mischief is imminent, indeed almost certain; some of the severer complications of the malady can scarcely fail to supervene; orchitis of a most intense type, or it may be cystitis, and this extending upwards, producing nephritis, appear a metastasis of the inflammatory action having occurred with the implication of parts, involving the question, not of convenience or inconvenience merely, but it may be, even of life or death.

A gradual declension only from the inflammatory height, when this has been attained, is safe; and this is to be achieved by the agency of the ordinary antiphlogistic means of known efficiency. A partial subsidence being effected, nitrate of silver again becomes most useful; not to be employed, however, as previously advised, to abort the disease, but as a most effectual stimulant to relieve the existing abnormal congestion of the urethral lining, and impart to it natural tone and function. For this purpose a solution of three, four, or five grains of the salt to the ounce of water will be found of sufficient strength, highly beneficial, and incapable of producing those aggravations to which the strong injection would, at this period, be most liable.

With reference to the supposed danger of urethral injection, a word of explanation is necessary. Mr. M'Donald approves rather of the use of ointment, introduced by means of a bougie; thus, as he believes, more completely averting the danger of noxious matter entering the bladder, and there producing serious results. The force of such apprehensions is materially lessened by bearing in mind that the urethra is not normally a patulous canal, but one offering considerable resistance to the backward passage of fluids, at all times more than sufficient to resist the propelling power of the ordinary irroy or

glass syringe; and when, in addition, the more forcible and complete occlusion insured by the advised urethral compression be taken into account, the force of the apprehension is, in my belief, altogether annulled. I must also still retain my impression of the advantages of injection. I cannot concede any greater ones to ointment. Injection possesses these qualities: equability of admixture,

ease and efficiency in application and operation, and, in my experience, complete immunity from danger. Ointment can boast the possession of no more. The inference deducible from the whole is the great efficacy of the nitrate of silver as a remedial agent in gonorrhœa, in different stages of its course, when applied judiciously and with discretion.—*Lancet.*

ANATOMICAL PECULIARITIES OF THE HEART AND SPLEEN.

Mr. Jackson presents his compliments to the editor of the *Lancet*, and will esteem it a favor if he will permit the enclosed to appear in an early number of his valuable and ably-conducted periodical.

Melton Mowbray.

A CONTRAST.

HEART—ARTERY.

SPLEEN—VEIN.

1. The soluble and nutritious portion of the food passes from the digestive tube into the lacteals, and through the mesenteric glands and thoracic duct into the left subclavian vein.

2. It is a large artery which takes the blood to the lungs.

3. To this artery a heart is prefixed.

4. Into the heart large venous roots go—the cava.

5. Out of the heart comes an artery, the pulmonary or cardia-pulmonic.

6. The reverse or contrary of the artery is the vein.

Diametrically different anatomical causes produce diametrically different physiological effects.

7. The blood-vessel going to the lungs, consisting of a heart and an artery, produces a constant and rapid motion of the blood through the capillaries of the lungs.

1. The soluble nutritious portion of the food, as well as the drink, passes from the tube into the intestinal capillaries, and through the mesenteric veins into the middle of the trunk of that great vein whose roots are in the spleen and whose branches are in the liver.

2. It is a large vein which takes the blood to the liver.

3. To this vein a spleen is prefixed.

4. Into the spleen small arterial branches go—the branches of the splenic artery.

5. Out of the spleen comes a vein, the splenic or splenohepatic.

6. The reverse or contrary of the heart is the spleen.

7. The blood-vessel going to the liver, consisting of a spleen and a vein, produces an intermittent and slow motion of the blood through the capillaries of the liver.—*Id.*

Effects of Alcohol on the Animal Frame.

When alcohol is introduced into the circulation, its elements combine with the oxygen of the arterial blood; and the globules, becoming thereby deprived of this vivifying principle, no longer assume a floral red color. The animal becomes asphyxiated; and if the quantity of alcohol be large, it dies as speedily as if it had been plunged into an atmosphere deprived of oxygen. Car-

nivorous animals, as the dog, which has a large stomach, compared with the rest of the alimentary canal, are very easily affected by alcohol, and may be destroyed by a moderate dose; for the liquor is rapidly absorbed, and is not carried beyond the duodenum. Herbivorous rodentia, as rabbits, are, in like manner, easily killed by small quantities of alcohol and is not found in the intestines. Granivorous birds, such as chick-

ens, will bear comparatively larger doses of alcohol. The inner cavity of their stomachs is of limited extent, and the organ itself is formed of powerful muscles. When alcohol is injected, it is soon expelled from this cavity and is found in the intestines; it is thence carried to the liver by the vena portæ, and reaches the great mass of the circulation slowly. Fish will live at a temperature of 41 degrees in water, which contains one half-hundredth part of alcohol.—*Dublin Medical Press*, from the *Comptes Rendus*.

Destructive effects of Camphor on the Teeth.

SIR.—It may be interesting to your correspondent in the last LANCET, and probably to some others of your numerous readers, to know that the action of camphor upon the teeth has been noticed by another observer. Mr. Tearne states that he has consulted many eminent professors of the dental art on the subject, but none (one excepted) had noticed this fact. However this may be, my attention was first called to the subject about seven years ago by observing in a family the prevalence of decay in the teeth at that part of the tooth where the enamel terminates and the protection of the gum commences. Now it is well known that the enamel, as it approaches this point, is gradually attenuated, until it terminates almost imperceptibly; and, as a necessary consequence, the effect of any menstruation or agent, would be more readily displayed there than at any other part of the tooth. In the cases in question, the enamel was extremely friable throughout the entire series of the teeth, (but more particularly in the molares, and easily shattered and removed with the slightest touch of the point of an instrument. On inquiry, the parties were found to be vigorous employers and defenders of camphor in the form of dentifrice and lotion for the teeth. Now, an hereditary or constitutional tendency to this form of decay of the teeth may be suggested as a probable explanation of the circumstance in this case; and I should have thought so too, had I not from that time to this noticed frequently—I had almost said constantly—these results go *pari passu* with the application of camphor; so much so that I cannot consider the coincidence otherwise than as cause and effect.

There is another way in which camphor displays its disorganizing effects on enamel. In the case of aching teeth which have for some time been treated with a solution of camphor, (a common domestic remedy,) in the hope of avoiding extraction, it commu-

nicates such brittleness to the tooth as greatly to increase its liability to be crushed during the operation, when no longer to be postponed.

In conclusion, I cordially agree with Mr. Tearne, that "society should be cautioned against the use of camphor as a dentifrice;" and I recommend those who entertain any strong penchant for its employment, and have had recourse to it for any length of time, to examine their teeth at the points above indicated; and they will find at least such intimation of danger as will induce them to substitute a less stimulating and destructive agent, if not abundant reason for recourse to the dentist. I am Mr. Editor, your obedient servant,

WILLIAM HURT.

Yeovil, Somersetshire, Sept. 1846.

THE DISSECTOR.

NEW YORK, JANUARY 1, 1847.

Magnetic Light and Magnetic Poles.

In magnetizing with the vibratory magnetic machine, we become familiar with magnetic light—with its color, and intensity, &c. Its color is that of the sun, and its intensity increases from the smallest glimmering to the greatest brilliancy, with the increase of the strength of the poles in the magnet and piston, and consequently with the power of the instrument. This light does not emanate from a process of combustion requiring oxygen to support it, but is equally brilliant when enveloped in water, or in an exhausted receiver, and is the light which is seen by clairvoyants to issue with the greatest intensity from the poles of magnets, and the poles of the organs and muscles, &c. Clairvoyants see with the light which emanates from the great pole in the centre of the brain, and they see the internal parts of animals, and of the human body, lighted up with the light from the poles of the organs and muscles, &c.

The organs and muscles are thus seen in the most clear and distinct manner in their healthy state, but when they are diseased, the light becomes dim in proportion to the

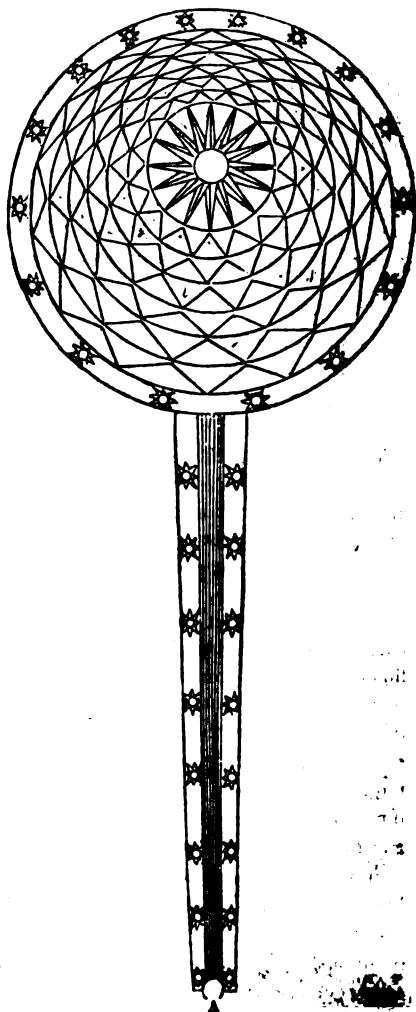
intensity of the disease, and in some extreme cases becomes extinct in an organ or limb, with the strength of their poles, according to the concurrent testimony of clairvoyants, and the fact that these organs and limbs are feeble, in proportion to the decrease of light, and are paralysed when it is extinct, is strongly confirmatory of this testimony.

There is a great difference in the size of these poles. The largest in the human system is that in the centre of the brain, and is of course of the first magnitude. There is one in the hollow of each foot, of the second magnitude, and one in the palm of each hand, of the third. Those in the organs of casuality, and amativeness—in the lungs, heart, stomach, kidneys, testicles, ovaries, and vagina, are of the fourth magnitude.—Those in the liver, spleen, pancreas, solar plexus, uterus, and ileo-cæcal valve are of the fifth magnitude. Those in the joints of the limbs are of the sixth, and those in the eyes, in the phrenological organs, ganglions, of the spinal nerves, and in the angles, or convolutions of the intestines, of the seventh magnitude, and those in the skin of the eighth magnitude.

These poles in the organs, joints, muscles and skin, &c., show radiations from a centre or nidus, like those from the poles of magnets, and are, like them, connected with magnetic axes and interlacings, and thus make a magnetic or spiritual form, like the human form, on which matter is laid in the construction of the human system. These poles are endowed with motion, power, light, sensation, inclination, and consciousness, as is seen and demonstrated in the clearest manner.

The following engraving is intended to present a view of the great pole in the centre of the brain, as seen by clairvoyants. It occupies the whole space between the circle of small poles of the phrenological organs. It is very light, especially the nidus in the centre and summit, which has the same intensity as the sun, and is always in motion, excepting in natural sleep, when it is in a quiescent state. The form in a situation

corresponding to that of the spinal marrow, is a continuation of the nidus, or nest of magnetic forms, and the small poles on each side, are those of the ganglions of the posterior spinal nerves in the intervertebral spaces, which gives them sensation. This great pole is surrounded with six great circles, and six small, intermediate circles of light, and the other large poles, from the first to the fourth magnitude, are surrounded with a certain number of similar circles of light, as those of the lungs, heart, and stomach, &c.



CLAIRVOYANT POWERS.

A great difference in the clairvoyant powers of different persons in the magnetic state has often been noticed, and is the consequence of various causes. Among these is a difference in the organization of the brain—in the phrenological organs, and in the relative quantity of grey or cortical substance around these organs. Besides, some are in the lower or first, second, or third degrees, while others have been raised to the fourth, or fifth degrees. Another cause of difference is that of a difference in their education; and another, that of a difference in the education, *minds*, and theories of their magnetisers, or those who conduct the examinations of the different subjects presented to them, and this last cause of difference may often produce the most discordant results.

The only manner of obviating these differences in the cases that are remediable, is to educate them, or at least to give them a general knowledge of the arts or sciences to which their attention or business, as clairvoyants, is mostly devoted, and this object is easily affected by teaching them in the magnetic state, as they remember when in it, and rarely forget what they once learn in that state.

Those devoted to the practice of medicine, should be taught anatomy, physiology, and magnetism, with the magnetic organization of the human system, and the two great divisions of diseases, or those of the serous and mucous surfaces, and their magnetic or duodynamic treatment, or with the magnetic machine and magnetised medicines. And this is a matter of great importance, as there is no longer any doubt that the effects of medicine, whatever they may be, is the consequence of the action, of imponderable, or imperceptible agents condensed in them, upon the nervous, spiritual, or magnetic organization of the system.

Besides the common clairvoyants who literally see things as they appear to them in their natural state, and besides, have intuitions of the past and future, there are others who do not see literally, but have im-

pressions more or less vivid, that things or objects appear, and are as they describe them. Jackson Davis is an example, or one of those who have impressions, instead of literal sight in the magnetic state, and we know other examples of the same kind in this city. Some few clairvoyants recollect in their natural state, very distinctly, many of the objects they see in the magnetic state, and some of the impressionists recollect, in the natural state, many of their impressions in the magnetic state, and on a full investigation of the subject, there appears to be no doubt but clairvoyants see literally, and the impressionists have impressions or intuitions common to both, without literal sight, or clairvoyance.*

The present, past, and future knowledge daily displayed by a great many persons in the magnetic state, leaves no room to doubt but they have an intuitive knowledge in that state, which is more or less perfect, besides the knowledge they obtain from literal sight or clairvoyance, and the evidences on this subject having been frequently described, and often observed by a great number of the most intelligent persons in almost every community, it is deemed a useless task to enumerate them here. It would also be useless to enumerate the evidences of the great superiority of clairvoyants to mere impressionists, as it must be self-evident to every sane mind; besides the lucidity and accuracy of the former, and the illusions and phantasies often displayed by the latter are proverbial.

On an examination of the subject of these intuitions, or of immediate knowledge without the deductions of reason, they are plainly seen to be the natural emanations from the exalted organs of the magnetised brain, and not from supernatural agency, as suggested by the marvellous. They are not, in fact,

* We recollect, distinctly, many objects we see in the magnetic state, and know that we see them literally as we do with our eyes in the natural waking state, and we have been in the habit of thus seeing them during the last ten years, and cannot possibly be mistaken.

confined to persons in the magnetic state, but are common to many persons in the natural waking state, numerous examples of which are familiar to persons of observation.

CLAIRVOYANT EXAMINATIONS OF DISEASES.

There is rarely anything presented to the mind of a physician which is so unintelligible as the reported examinations of diseases by clairvoyants when those examinations have been conducted by persons who have little or no knowledge of diseases, anatomy or physiology, and they are consequently unable to form an opinion of the good or bad effects that may be expected from the prescriptions of clairvoyants in such cases, yet it is the opinion of many well-informed persons, that these prescriptions are generally more successful than those of the best physicians. When, however, these examinations are conducted by physicians, they are generally very satisfactory, and in a great variety of cases are very useful, and in many others indispensable to forming a true diagnosis as well as a correct prognosis of diseases. The prescriptions of clairvoyants under such circumstances are generally well understood, and their value duly appreciated. As an example, we may refer to the cases of deafness, the causes of which in any given case is almost always unknown, and would always remain so, without a clairvoyant or post mortem examination.—The eustation, or auditory tube, through which the sound passes from the ear to the throat, may be obstructed by hardened wax, by tuberculations, or by false membranes, or the deafness may be the consequence of paralysis (more or less complete) of the auditory nerve. Now it is easy to be seen that the treatment, to be successful, must be different in each case, for the hardened wax must be removed, or melted with steam, the tuberculations must be reduced with the remedies for tubercula, the false membranes must be broken up with an instrument, and the paralysis must be removed by the remedies for mucosis or atrophia, including the action of the magnetic machine, and hence

the great importance of clairvoyant examinations in these cases.

Although we can determine in an instant the character of the disease of an organ or limb by the magnetic symptoms, yet we cannot always tell how far the disease has advanced, whether it is curable, or too late to be cured without a clairvoyant examination, and this is often a matter of great importance. It is also often a matter of great importance to observe by clairvoyance the changes that occur in the appearance of a disease during the process of cure from changes of temperature, from colds, and from various other causes. Clairvoyance is also a matter of great importance to females—in diseases peculiar to their sex, and in enabling ladies to avoid the most revolting examinations with the most perfect safety, and with credit to themselves and their families. Besides the examination of patients when they are present, clairvoyants examine patients at great distances from them, and in fact in any part of the world, and generally with the same accuracy as if they were present. It is the magnetic forms, or *spirits* of these clairvoyants that travel over any part of the world, and are present with those patients when they examine them.—We know that their spirits travel, and are present with the patients in these examinations, from the fact that they have the full exercise of all their senses while travelling to different places, and during the examinations of these patients. They see the country and towns they pass through, feel the changes in temperature and climate, hear any uncommon or strange sounds, as the blowing of horns, the noise of steamboats, or the roaring of the falls of Niagara, &c.; notice uncommonly pleasant or disagreeable odors, visit places of amusement, and have a sense of fatigue, hunger, and thirst. Besides, if one of these patients have a paralysed limb, a corresponding limb of the clairvoyant becomes paralysed the same as if the patient was present and having hold of the hand of the clairvoyant. Such are the well ascertained facts, and such is the evi-

dence on this subject, which is deemed perfectly conclusive, no matter how extraordinary it may appear to those who are not initiated into the mysteries of the magnetism of the human system.*

When clairvoyants are tired, unable or unwilling to travel to the places where patients reside, the magnetisers can direct the magnetic forms, or *spirits* of these patients to appear before them, when *they do so appear* with their diseases, and in the proper form and dress, or costume of these patients where they are examined with the same accuracy they are under the other circumstances before described, and are then directed to return to their several places of abode, when they soon disappear. Such are the well-ascertained facts in these cases, and such is the power of the human will.†

We have been engaged in the examination of patients by clairvoyants about four years, and in the daily practise of it during the last two years, and have during all this time, examined a great many hundred cases, and cannot possibly be mistaken in any of the facts above mentioned.

The great and universal accuracy of these examinations has uniformly elicited the most flattering commendations, as well from persons residing at great distances as from those of this city and vicinity, and among these there are many who rank with those of the highest order of intellect. These results of these examinations, with the success of the practice founded upon them, has so increased our correspondence as to make it a matter of some importance to us in the saving of labor, to explain these mysteries in this

* The magnetisers must always conduct the clairvoyants home before they demagnetise, or wake them, but if they should forget to do so, they must magnetise them again, and then conduct them home.

† The magnetiser must always be careful to direct the spirit of the patient to return to its place of abode, and see that it departs before he demagnetises or wakes the clairvoyant, but if he should forget to do so, he will soon learn his mistake, as the clairvoyant will probably be very much frightened, and may go into convulsions, and he should therefore magnetise the clairvoyant again as soon as possible.

work for the benefit of our correspondents, and to enable them to furnish us with the means for examining patients at great distances with great facility, or in the shortest time.

EXAMINATIONS OF DISEASES AT GREAT DISTANCES.

When we wish to examine a patient residing at a great distance from us, we can put a person present who has been at the abode of such patient in communication with the clairvoyant, and direct that person to conduct the clairvoyant to the patient, or in the absence of such person, we can place a letter from the patient, or from a person in the family of the patient, in the hands of the clairvoyant, with directions to find the patient, when a light starts off in the form of the great pole in the centre of the brain with its train of small poles,* followed by the spirit of the clairvoyant, which sees a narrow strip of country, or of water, when passing over it, and in passing through the streets of towns and cities, often see the houses on either side of a street by its guiding light shining upon them. After having found and examined the patient, it returns home in the same manner, and enters into its place of abode. Such is the concurrent testimony of clairvoyants, and such are the extraordinary facts.

We are aware that it may be said that the constant presence of the spirit of the clairvoyant is necessary to maintain life, and as the clairvoyant does not die, the spirit does not travel in the manner described, because it is impossible for it to be in two places at the same time. It should, however, be remembered that the clairvoyant was magnetised (no matter how) and that to magnetise a body is to make a magnetic form or spirit in that body, as is easily demonstrated, and this spirit may and does maintain the body of the clairvoyant in a healthy state in the absence of its own spirit.

As the examinations of patients in the manner above described is a legitimate business

* See cut on page 35.

ness of great importance to the community, it should not be mixed up with and degraded with vain experiments that are foreign to it, and injurious to the sight of clairvoyants. They should not therefore be required to answer questions on the subject of such experiments, but should leave them for the solution of the clairvoyants of private parties.

In finding and examining patients with a letter, every facility should be afforded by the patient, or friend of the patient residing in the same house, where the letter should be written, as the spirit of the clairvoyant will always go directly to that house. The spine of the patient should be examined in the manner described in "The Motive Power of the Human System," page 43 and the result stated in the letter, and besides if there are any swellings of the joints, limbs, or any other part of the body, or any ulcerations, they should be mentioned, as they might be overlooked in the examination.

If there is any pain or tenderness from pressure along the spine, we shall know that it is a case of tubercula, and if the number and situation of the painful or tender spots are stated as near as may be, we shall know if the spirit found the patient, or some other person, and if some other person, we can direct the continuation of the search until the patient is found.

If on examination there is no tenderness found along the spine of the patient it should be so stated, when we shall know it is a case of mucosis or mucous disease, but we should not know what organ was diseased, and it should consequently be mentioned in the letter.*

On having the information (we have described, which is easily furnished, we can easily know by means of clairvoyance, how far the disease has advanced in each case, and whether they are curable or incurable, or as well as we could if we had the body of the person open before us. All the cases are curable in the first stages of the disease,

*There are about fifty cases of tubercula to one of mucosis.

and about ninety-five out of every hundred in the last stage, including tubercular consumption and white swellings of the joints and limbs, as we have demonstrated in the clearest manner, and we shall continue to undertake the cure of the curable cases presented to us for that purpose, and have the fullest confidence that with the means in our power, we shall continue to cure chronic diseases in the above mentioned proportion to the whole number of cases.

Such is the result of the duodynamic or magnetic practice. Now it is well known to those who are initiated into the mysteries of the practice of medicine, that there is not more than about five per cent., or five cured out of every hundred cases of chronic diseases, by the old astrological or common practice, and the number of cures out of every hundred by the Homœopathic practice is about the same, or five or six out of every hundred cases.

The remedies we use in these cases are magnetic and specific, and are perfectly safe for persons of all ages and conditions, and are forwarded to any part of the Union and the Canadas, by mail, express, or otherwise, according to order, free of postage or expense, with full directions for their use.*

* Temporary remedies, as bleeding, blistering, emetics, cathartics, low diet, &c. &c., are prescribed by alapathists, or old school physicians, and aconite, bryonia, rhus tox, belladonna, &c., by the homœopaths in acute or inflammatory diseases, which produce sudden derangements in the system, and run through their course in a few days or a few weeks, and these prescriptions are often necessarily and very properly changed every day, or every one, two or three weeks; when the disease has run through its course, and the patient either cured, dead, or the disease has become chronic; but no man who deserves the name of a physician ever prescribes in this manner to cure chronic diseases, which come on very slowly, and gradually changes the old, and forms new parasitic, or other unnatural structures as tubercles and white swellings of the serous and mucous surfaces, &c., as the plainest common sense would, and does teach him to learn and prescribe the specific remedies that will act slowly and safely on the old and natural forms of the system, and gradually reduce in a few months or more, the parasitic or other unnatural structures, and thus restore the gen-

When it is known that our time is necessarily occupied every day, from morning until night, with the examination of patients by clairvoyance and otherwise, in our office, or in this city, and that we are consequently compelled to examine patients at great distances in the evening, it is hoped and believed that such patients and their friends will reflect upon our situation and have so much mercy upon us as to give us as much information in regard to each case (no matter what it is) as to enable us to distinguish and find the patient with as little delay as possible, so that we may get through with the examinations of such cases in time, each night, to have some rest from our labors.

It may also be useful to observe here that the examinations of the letters from patients is conducted in the most secluded and confidential manner, and the notes of the clairvoyant examinations of the cases taken down at the time of such examinations, and the letters answered as soon thereafter as possible.

The clairvoyant will visit and re-examine these patients under our direction, once in four or five weeks, and as she always recol-

eral health. Nothing, therefore, so much distinguishes the accomplished physician as the readiness with which he distinguishes and prescribes for acute and chronic diseases, and on the contrary there is nothing that so much distinguishes the ass or ignoramus as the frequent changes in his prescriptions, in chronic as in acute diseases, and these rules are arbitrary and admit of no exceptions, and are equally applicable to physicians and clairvoyants. When, therefore, reputed clairvoyants change their prescriptions in chronic as in acute diseases, or even once in 3, 4, 5, or 6 weeks, it is conclusive evidence that they have no clairvoyance on the subject, but are governed by impressions transferred from the brain of some miscellaneous personage, and these impressionists may also be known by the miscellaneous character of their prescriptions in chronic diseases, as "catnip, sage, isip, and pond lily—white pine and wild cherry bark, squaw-vine, golden seal and spikenard—cohos, skunk-cabbage, prickley-ash, ver vain crowsfoot, and solemon's seal," &c.

Now such prescriptions of reputed clairvoyants, are not only legitimate sources of amusement to physicians, but they have a strong tendency to make new and confirm old skeptics in their skepticism.

lects the previous examinations and compares them with the last, it is a matter of great importance in enabling us to know the progress of the cure in each case, and to correspond with any patient on the subject, if it should become necessary to do so.

In the meantime patients should communicate to us freely any information supposed to be overlooked or unknown to us, and deemed of great importance in the successful treatment of any particular case.

We shall employ a clairvoyant of the greatest power, and of a high order of intellect for the examination of patients at home or abroad, who will often give our patients fine specimens of [the] all-seeing eyes and spiritual powers of the magnetized brain.

The following is a specimen of Clairvoyance which occurred a few evenings since. When we had got through with the examination of letters from patients, on the evening of the 8th inst., and at about 8 o'clock, we requested the clairvoyant to look and see if there was any money coming on the way in the mails for us, and in two or three minutes, she answered yes! I see a fifty dollar bill for you in a letter, and the letter is in a bag coming from the west. Are you not mistaken in the amount? No, it is fifty but it is not a bill but a draft. Look and see if it is not 70 instead of 50 dollars. No, it is 50. Why, how fast it comes!—whiz!—it is coming on the railroad! The cars arrived here between 10 and 11 P. M.

We were expecting a draft from New Orleans of 70 dollars, but instead of that, our clerk on returning from the post-office on the morning of the 9th inst., brought us a letter from a gentleman in Pittsburgh inclosing a draft for 50 dollars.

On the evening of the 10th inst., after having again got through with the examination of letters from patients, I directed the attention of the clairvoyant to the subject of the above draft, and inquired whether she knew from mere intuition it was a draft of 50 dollars for me and coming in the mail on the railroad from the west, or saw it literally?—When she answered that she saw it literal-

ly, as she saw things with her eyes in her natural waking state.

information, and skill in anything. Consciousness is not there ore knowledge or power, and ought not to be thus confounded.

Instinct is a mere natural desire or aversion not determined by reason, while intuition is immediate knowledge obtained without the deduction of reason, and clairvoyance is seeing in the magnetic state, with magnetic light as we see with our eyes by the light of the sun in our natural state, yet Mr. S. confounds them all together, like consciousness, knowledge and power, and what he says upon these subjects is therefore manifestly without knowledge and consequently deserving no more attention than the most common twaddle.

Rev. La Roy Sunderland and His Theory of Pathetism.

We have published in this number of our Journal, Mr. Sunderland's Theory of Pathetism, a new name with which he has christened Mesmerism, or plain Animal Magnetism. He performed these rites in this city in 1843, and described the ceremonies and the reasons for their performance in a book of 247 pages, called Pathetism.

Mr. S., soon after the publication of his book, went to New England and commenced lecturing on Mesmerism under this new and strange name and succeeded in obtaining audiences at his call, which was unheeded in this city a few months before, when he repeatedly invited its citizens to hear him lecture on Mesmerism or Animal Magnetism.

Mr. Sunderland's success in obtaining audiences opened a fine field for the sale of his book at the door of his lecture room to his marvelous hearers, and he soon began to feel the most substantial benefits of his new enterprise, and satisfied himself if not his audience of the great importance of changing the name if not the facts of Animal Magnetism.

In his Theory of Pathetism he commences first with *consciousness*—of which he tells the reader there are two kinds. "The first and highest consciousness," he says, "is the *knowledge* which the mind takes of itself and the *power* by which it distinguishes between itself and the objects of its *knowledge*." "The second kind of consciousness is manifest in the spontaneous action of the *nervous functions* without observation or experience, which constitutes **INSTINCT, INTUITION, OR CLAIRVOYANCE.**"

We should observe here that consciousness is the mere perception of what passes in the mind—of wakefulness—of our existence, *without* certain knowledge; and that knowledge is certain perception, learning,

"MIND—SOUL—SPIRIT."

"*Mind, soul, or spirit, are SYNONYMOUS terms, and signify the aggregate of all the functions of the nervous system. Hence, mind is neither material or immaterial, but functional.*" This is another specimen of Mr. S.'s habit of confounding facts and fictions.

Now the *spirit* of a man is a living spiritual form in the likeness of the man that acts and is acted upon by its system, called the nervous system, and is not therefore a mere *function*; action or nonentity as represented by Mr. S., but is endowed with sensation, inclination, motion, power, consciousness and knowledge. Its vital forces and physical power is represented in the muscles, and its mental power in the mind. The mind is not therefore synonymous with, but a function of the spirit.

ANIMAL LIFE, ETC.

"Life is manifested from certain associations, and it controls matter, suspends the laws of chemical affinity, and extends its power over each of the imponderable fluids known under the terms of magnetism, electricity and galvanism. It carries on a series of revolutions in the animal and mental economy which correspond with the alternate forces or states of everything else in na-

ture." Chemical affinity depends upon the magnetism in inanimate matter and it is a fact that life controls the unorganised magnetism in inanimate matter, but it is a fiction to suppose that it also controls the organised magnetism in animate matter; for *living* magnetism carries on a series of revolutions in the animal and mental economy, which correspond with the alternate forces or states of everything else in nature, and these are well known to be the magnetic forces, and states depending on them.

INTUITION—CLAIRVOYANCE—INSTINCT.

"The instinctive power in man is superceded by the development of the intellectual faculties, through the external senses. But in certain states of the nervous system when the external senses are suspended, this power becomes active, and is then what is denominated clairvoyance."

We are told here that *instinct* or a mere natural *desire* or *aversion* in certain states of the nervous system when the external senses are suspended is clairvoyance, and this is Mr. S., theory, or the theory of pathetism.

MENTAL INFLUENCE—TEMPERAMENTS.

"The influence which one person or thing may have upon another, depends on temperaments or the constitution of man, and the nature of things. That is, there is a difference in their temperaments, the fluids, the nerves and muscles. Hence no two are precisely alike in the different degrees of their different susceptibilities."

The magnetism of one person is as necessarily different from another as their temperaments or the quality and quantity of the fluids and solids in their systems, and hence the cause of the different degrees of their different susceptibilities. Inanimate or unorganized matter or unorganised magnetism in inanimate matter, does not act on organised or magnetised matter in its normal state, but magnetised matter acts upon other magnetised matter as one person acts upon or influences another. This action is that of the magnetic or vital forces which radiate great distances in every direction from magnetised bodies, and are called the magnetic *spheres* of

our bodies. These spheres are odoriferous and the odor of each is as different as our faces, and these odors are often recognised at great distances by man and other animals. Besides the *motions* of the forces in man and other animals, and those *made* by man and other animals, are beyond all doubt identical with those of the magnetic forces.

ASSOCIATIONS—SYMPATHY.

Mr. S. gives us another hash of facts and fictions under these captions. The following paragraph is one example.

"A *peculiar association* or connection between two minds or two functions which are not precisely alike, [but one negative and the other positive] produces a positive or *sympathetic* relation, by which one mind [or one mind and body] affects the condition of the other. When the mind or organs [or the body] are precisely alike, [or both negative or both positive] the relation is negative and no results are produced except a feeling of *antipathy*, and when two minds, bodies, or *substances* are brought together which do not come up to a certain degree of difference, in quality or functions, a neutral relation, or a state of *apathy* is the result."

We have italicised a few words in this paragraph, and we have added the words in brackets—the rest is twaddle—for it is a fact that a positive or sympathetic relation may be and is often established between persons who are unlike or of opposite forces, so that one may affect the condition of the other, and it is also a fact that in case the two persons are precisely alike or both are negative or positive no results are produced, but it is a fiction to suppose that these positive and negative results are from any other cause than that of the action of magnetism in the first case, and its non-action in the last, in accordance with the laws of these forces.

MENTAL PHENOMENA.

"Those which are self-induced, such as sleep, trance, somnambulism, and, in a word, each and all those changes which come within the range of faith, hope, and the power of the human will. There is no

state of the mind but which may be self-induced, where there are no disturbing causes or previous associations strong enough to prevent the attention from becoming sufficiently fixed upon the result"

Mr. S. has unfortunately often proved that the converse of this statement is true, as he has always failed in his lectures, as others have, in magnetizing any considerable portion of his audience, notwithstanding his untiring and tedious efforts to do so. In fact he has only succeeded in magnetising a very few only of the most susceptible persons in his audience, and besides has in fact so little confidence in his own ability to succeed always in magnetizing even one person in his audience, as to induce him to take the necessary precautions to prevent such an unfortunate failure in the history of Pathetism.

"The pathology of incubus, somnambulism, trance, second sight, insanity and dreaming, is the same, or so nearly so that the pathology of one of these states will readily suggest or explain the pathology of each of the others."

Mr. S. must, we think have written this sentence of fictions in a state of incubus or night-mare, as he has not given the reader a solitary fact in the sentence or in any way connected with it, to support his assertions, or make his usual hash of facts and fictions. The sentence consequently appears in all the deformity depicted by the evil spirit who presides in incubus, and who disappears in an instant, the moment its victim is jugged.

DEATH—RESURRECTION.

"Death is the alternation of life, and the resurrection of the human body is the alternation of death. We can trace man no farther than death without a divine revelation, and from the bible we learn that by the gospel of Jesus Christ "Life and immortality are brought to light."

This paragraph, like the last sentence we have quoted, appears also to have been dictated by an evil spirit, for we have already numerous revelations on death and the resurrection, in which man is traced farther than death, and in one of which it is said, "so

also is the resurrection of the dead. There is a natural body, and there is a *spiritual* body. It is sown a natural body, it is raised a *spiritual* body," but this did not accord with the theory of Pathetism, and consequently a new revelation was required.—Such are the absurdities of this theory Mr. Sunderland knows very little of the magnetism of the human system, or of its phenomena excepting its phantasies which he studies and develops in his lectures for the amusement of his audience.

LATERAL CURVATURES OF THE SPINE.

William W. Kinne, M. D., of Trumansburgh, Tompkins Co., N. Y., has been treating lateral curvatures of the spine and also distortions of the spine and of the limbs, during the last year (1846) with great success. The Doctor took plaster casts of the curvatures and distortions before he commenced the treatment, and also at different periods during its progress and at its termination. The following engraving, Fig. 1, is from a drawing by C. Muyr, of the first cast of Miss Mary B. B., of Ithaca, N. Y., aged 16 years.

FIG. 1.



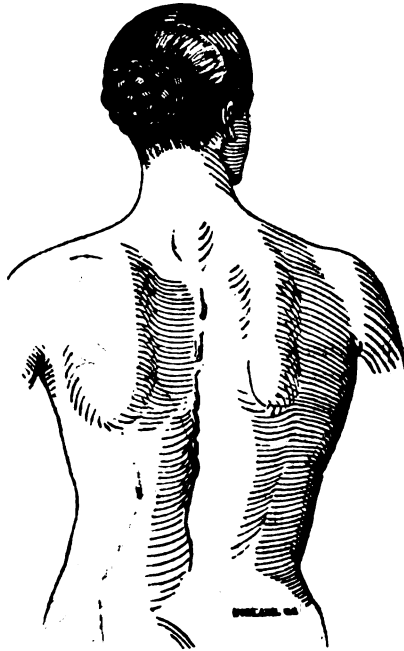
The curvature commenced seven years before the cast was taken, and at the end of four and a half months thereafter, another cast was taken of Miss M. B. B., showing a very great improvement in the case, as seen in the engraving, Fig. 2, and leaving little doubt but that in a month and a half more, or six months from the time of the commencement of the treatment the spine would be straight and the form perfect.

We have also a cast of a lateral curvature, taken by the Doctor at the commencement of the treatment of Miss M. P., of Hector, N. Y., aged 17 years. The curve commenced when she was between four and five years old, and grew with her growth.—The cast shows it to be a very bad case, and the spine, at its greatest curve, an inch and a half from the median line. The second cast of this case taken after nine months treatment shows the spine straight.

A cast of lateral curvature of the Spine, which the Doctor took of Miss M. V. S., of Ithaca, N. Y., aged 13 years, and of three years standing shows a deviation of the spine of one inch from the median line, a very bad form and poor health. Another cast taken after eight weeks treatment of the same case shows a straight spine, improved health and a perfect form.

There was in all of these cases, like every other of lateral curvature, a contraction and thickening of the muscles or veritable white swellings on the outside of the curves. They are all cases of tubercular disease of the muscles, and it is the contractions of the muscles on the outside of the curves and consequent atrophy of those on the inside that make the deviations from the median line.

FIG. 2.



The white swelling of the right scapula or shoulder-blade in the case of Miss M. B. B., Fig. 2, which produced the deviation in her spine, is not, it will be seen, entirely re-

duced, and consequently the spine has not entirely resumed its natural position.

The course the Doctor adopted to reduce these curvatures, was first to reduce the

white swellings with the specific remedies for tubercula and the action of the magnetic machine, when the spines resumed their natural positions, and this is the only philosophical and only successful practice in these cases.

In consequence of the great increase of the business of reducing lateral curvatures of the spine, and distortions of the spine and limbs, Dr. Kinne has been invited to establish himself in this city, and in a letter from him a few days since (Dec. 12), he informs us that he has concluded to accept the invitation, and will have rooms in this city to accommodate his patients, in the course of the month of March next.

DISTORTIONS OF THE SPINE AND CARIES OF THE VERTEBRÆ.

Fig. 3 is the form of a cast taken by Dr. Kinne, at the commencement of the treatment, of Almond Beach, of Cuba, Alleghany Co., N. Y., aged 13 years. The distortion commenced when he was five years old, and grew with his growth. Fig. 4 is the form of a cast taken from the boy after three months' treatment, and Fig. 5 is the form of a cast taken from the same boy after four and a half months' treatment.

FIG. 3.



FIG. 4.

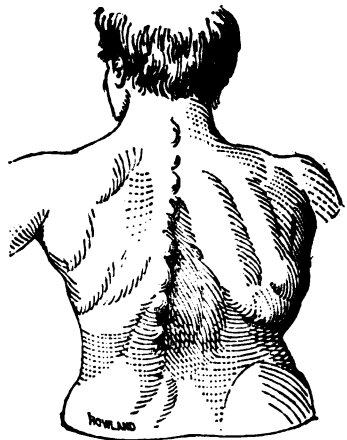
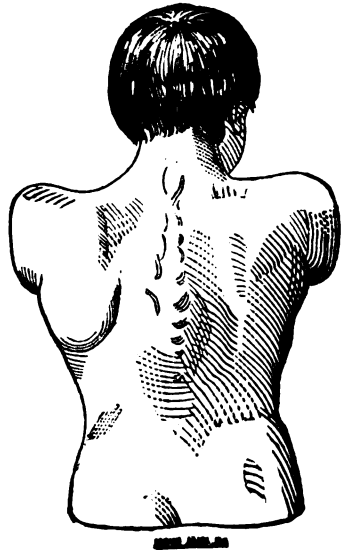


FIG. 5.



There is a very great and progressive improvement in this case for the time it has been under treatment, which will astonish every physician who is unacquainted with the magnetic practice by which such extraordinary results are obtained.

It will be observed that the 3d figure and form of the first cast from this boy shows the most extreme atrophy of the muscles, with very great distortion of the spine, and that in figures 4 and 5 the atrophied muscles are progressively developed in the

same proportion with the reduction of the distortion, and these changes have progressed in the same manner in all the cases we have treated.*

We see the same progressive changes and in the same order, in lateral curvatures of the spine, as seen on a comparison of Fig. 1 with Fig. 2, and of the other casts in our possession, before described, and these changes have also progressed in the same order in all the cases we have treated; and in all of which allopathy, homœopathy, hydro-pathy, chronopathy, and all other pathies, are equally and entirely at fault. And now it should be remembered, and never be forgotten, that the magnetic or duodynamic practice reduces in the most safe and prompt manner, the enlarged, thickened, swelled, hypertrophied, or tuberculated portions of the organs in the same order as in the above cases of tuberculated and atrophied muscles in lateral curvatures and distortions of the spine, as we have demonstrated in the clearest manner time out of mind. Yet the professors of our medical colleges continue to teach the old antiquated astrological practice

and the people are apparently doomed to be dragged to death like their fathers in all future time; but the study of anatomy and physiology is being introduced in our primary schools, and the manikins and magnetic machines are abroad with the lecturers on the magnetic symptoms and treatment of diseases, and the magnetizers are raising their signs in town and country, and are curing diseases in a prompt, safe and satisfactory manner. In the meantime the people are obtaining a general knowledge of anatomy, physiology, and of the magnetic symptoms and treatment of diseases, and will soon learn the professors of these colleges the necessity of keeping pace with the improvements in the practice of medicine.

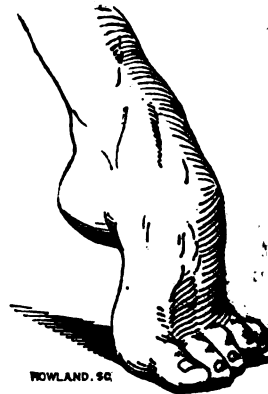
DISTORTIONS OF THE LIMBS.

Fig. 6 is the form of a cast of the lower part of the leg, foot and ankle, of a girl aged 11 years, taken by Dr. Kinne, at the commencement of the treatment; and Fig. 7 is the form of a cast taken from the same leg, foot and ankle at the end of six weeks thereafter.

Fig. 7.



Fig. 6.



HOWLAND. SC.

The girl used the limb many years in the form and manner seen in Fig. 6; and the

Doctor observes that, "in the treatment of the foot with which I presented you casts, one taken six weeks after the other, without any cutting of tendons, or other operation, we relied entirely upon the magnetic machine and frictions to restore the action of the paralysed muscles."

* We have always on hand cases of distortion of the spine and caries of the vertebrae. We had 16 cases in 1844, aged from one to eight years, and they are now all well and their spines straight, excepting 2 who were too far advanced in the disease to be cured.

MR. SUNDERLAND'S REVIEW

Of Professor Bush's work on Mesmerism and Swedenborg; or the relations of the developments of Mesmerism to the doctrines and discourses of Swedenborg, page 26 of this Journal.

We have read this review very carefully, and have compared the quotations with the original works, and we must say that the objections to the conclusions drawn by Professor Bush are well taken and are fatal to them.

The Professor has been greatly deceived, and especially unfortunate in the selection of his oracle, Davis, who, instead of being as the Professor represents, "a person of remarkable clairvoyant powers in the investigation of disease," and possessing, "both physically and mentally, in eminent degree, the requisites for a clairvoyant of the highest order," is in truth and in fact no clairvoyant at all, but a mere impressionist, or a person who, in the magnetic state, has impressions or intuitions more or less perfect, but not literal sight or clairvoyance, and unfortunately these facts are "well known to a wide circle" in which is our professor, as will be seen, who says (page 174) that "early in June last Mr. D. while in the midst of one of his lectures came to a sudden pause, and remarked that he received no farther impressions—the usual language in which he speaks of his internal communications—(not of what he sees,) saying at the same time, that he perceived that he must go immediately to Poughkeepsie, and that something very extraordinary was going to happen to him there. What it was he was unable to say, but observed that it would be known in New York in three or four days, and that his associates might freely inform others of the fact, but it must be kept from him while in the waking state, as it would produce an undue excitement in his mind which he must carefully avoid. His wishes in this respect were strictly complied with, and accordingly shortly after, when in the natural state, he announced the purpose of starting the next day, (Saturday) for Poughkeepsie. On Saturday he left the city in company with Dr. L., his constant compan-

ion, and on the Wednesday following—the fourth day from the announcement, I received unexpectedly the ensuing letter

The following are extracts from the letter, dated

"Poughkeepsie, June 16th, 1846.

Dear Sir:—Yesterday morning after eating breakfast at No. 49 Washington street, I went down to the bookstore, to get some paper to write a letter to ———; soon I had a desire to go down to the river—what caused it I don't know—but went down. I soon lost all knowledge where I was—*recollect* of being about the river, and also ascending a hill, and being in the mountain opposite Poughkeepsie about 4 miles. I am conscious of meeting the same person that I had seen in the grave yard in Hyde Park. I also remember conversing with him and taking out my pencil, and writing all the thoughts given me. I remember him leaving me suddenly and I came out of the state. I was surprised to find myself wet with rain, the paper on my lap, and dry—the paper had not been wet. The very moment I came into the natural state, I felt you should have the paper immediately,"—of course.

This was certainly a very natural feeling or inclination, as he undoubtedly went up to the mountain for the express purpose of making a revelation for the Professor from that elevated position.

The Professor supposes that the communication, as written is addressed to what he (Davis) regarded as the spirit of Swedenborg, but still has his doubts about it. We have however no doubt at all but it was really the spirit of the Professor, and none, but he read from the Professor's mind through his spirit before him, whatever part of the revelation was really written by him in the magnetic state, and not by his "associates."*—Neither have we any doubt but that when his impressions ceased upon the subject on

* Persons in the magnetic state can easily bring the spirits of other persons before them whenever they choose to do so, and especially those in close communion with them as in this case.

which he had been speaking, and he "perceived" that he must go or be *taken up into a high mountain*, he got that perception from the mind of the Professor, and this accounts for his haste to be off, and also in sending his revelation to the professor as soon as it was possible to do so. It is besides a fine example of what the Professor calls the *influx* of what passes in one mind into that of another and nothing else.

We, hope that the doctrines of Swedenborg and those of other christians will never require such support.

In the meantime it should be observed that the Professor's knowledge of magnetism is very limited, and that he is consequently liable to have gross impositions practised upon him by speculators on the subject who make periodical announcements of their marvels in present and future prospect.

We should also observe here that we have read attentively the whole of the Professor's long account of Davis' marvels, to which he imputes supernatural agency, than which nothing could be more ridiculous, as there is nothing in them but what is common to impressionists as well as to clairvoyants, and they are all easily as well as satisfactorily accounted for on the most simple and natural principles, as every one knows who is familiar with these magnetic phenomena.— Even the discovery of the new planet, or that it was in process of discovery as pretended is nothing new or really marvellous, as that planet had not only been discovered by many clairvoyants long before it is pretended to have been discovered by Davis, but the number of its moons were also discovered and the time not only given and correctly too, when the planet would be discovered by astronomers, but the time that would elapse before they would make successive discoveries of its moons.

DECLINATION AT THE CITY HALL, N. Y.

6°, 56', 34" West declination at the City Hall, New York, January 1, 1847, Latitude 40°, 42', 40".

THE MAGNETIC MACHINE.

The interest the medical profession and the public generally have evinced in this machine is still on the increase, and is the strongest evidence of the great estimation in which it is held in the treatment of diseases. Its extraordinary, prompt and often apparently magical effects in a great number and variety of diseases, both acute and chronic, are of daily occurrence in almost every part of the country; and the introduction of the magnetic symptoms of diseases, with the magnetic machine, is marking every where, in an indelible manner, the commencement of a new era in the practice of medicine, and of the reign of science after a mournful interregnum of more than two thousand years.

We should here again caution physicians and others against purchasing the various imitations of our MAGNETIC machines under whatever name, as they will be found of little or no value, and will soon be laid aside as useless lumber, as experience has already shown.

PROF. BUSH AND THE MARVELS OF DAVIS.

We copy the following very just remarks on these marvels from the New York Observer of the 19th of December, 1846.

Gross Delusion or Imposture.

Those who are in the habit of observing the movements of the present day, are aware that there is at this moment a most powerful effort in progress to unsettle the foundations of christian faith, and introduce a semi-infidel philosophy in the place of divine revelation. In this work two classes of men are engaged. The one includes the open enemies of the truth, the other embraces those who have been deceived by the glare of these new doctrines, and are more efficient and successful in the work of mischief, than they who avow themselves and their objects.

Impelled by a strong conviction that duty requires us to expose the tendency of these various doctrines we have devoted considerable space to the word during the year past, and notwithstanding the present indifference to the subject on the part of the religious community, we intend to follow it up. In

the purchase of this work, we published a communication two weeks ago signed "T. L." demonstrating that the case of Davis, a pretended clairvoyant, is one of the most remarkable instances of delusion or imposture ever exhibited. Professor Bush, having assumed to be the endorser of Davis, very properly feels that his moral or mental sanity is involved in the matter, and desires to be heard in reply. We have therefore allowed him his own space for that purpose and on the fourth page of this paper we give his professed reply to the article of our correspondent.

We ask our intelligent readers to peruse that article with attention, and admire with us the entire absence of all proof of the positions which "T. L." had assailed. Prof. B. commences by saying that he does not regret that an occasion has arisen for him to exhibit the evidence on which he relies.—And then he proceeds through two columns, saying "I affirm it then as a fact," "I affirm it," &c., while there is not the slightest shadow of evidence presented from the beginning to the end of his article; nor does this writer pretend to offer any proof that the man Davis has not gathered from books, periodicals, lectures, &c., the "snatches" of "revelations" which he assumes to make. His testimony is nothing more than the naked assertion of a man that he has not read the books from which he professes to make extracts, while the extracts which he does make have been shown to be within his reach, and the rhapsodies which are called scientific lectures and claimed to be original, are mere incoherent jargon, unworthy of the slightest regard. This is proved by the testimony of scientific men who have heard his utterances.

There is one assertion made by Professor Bush which enables the reader to form a proper estimate of the value of his testimony in this matter. In his book, p. 171, he says of Davis:

"I can also testify that having been occasionally present at some of these Lectures, I have heard him quote with the utmost accuracy, from the Hebrew, Greek and Latin languages, of none of which has he the least knowledge in his normal condition.—He has also quoted long extracts from the Sanscrit, the substance of which I have been able to verify from a French translation of the Vedas. Whether the same thing exists in an English version I have not learned."

In this passage the impression is clearly sought to be made and is made that Professor Bush has heard Davis quoting with the utmost accuracy from the Hebrew and other languages. But "T. L." showed that this

pretended quotation from these languages was nothing more than the repetition of *one word* which he might have picked up, and even in the case of the Greek that the words were anglicised and of common use in newspaper reports. And now Prof. Bush says "It is true that I did not myself hear the utterance of but one Hebrew word"—what then must be our opinion of Professor Bush's state of mind, when after hearing a man repeating a Hebrew word, often seen in English letters, he says that he has "heard him quote with entire accuracy from the Hebrew language," and on such evidence he builds the pretension that the man receives his Hebrew revelations from the spiritual world. We were induced to allow Prof. Bush to make his defence in our columns that it might be shown as it is now, and will be more fully next week, that he has been deluded without the least shadow of reason, and when put on the defence has not even the appearance of an argument on which to build.

ENLARGEMENT OF THE LIVER AND SPLEEN, WITH DISEASE OF THE BLOOD.

In the same journal, Dr. Fuller, gives at length the history of this case, and the principal points of interest are—1st. That the blood being microscopically inspected before and after death had taken place, presented, in addition to the natural blood-globules, the appearance of

"A number of abnormal globules, spherical in form, finely granular in appearance, colorless, and apparently possessed of no investing membrane or nucleus. These globules varied greatly in size; some were about the size of ordinary blood corpuscles, but the greater number of them were much larger, some of the largest measured varying from 1-1500 to 1-2000 of an inch in diameter, the blood globules in their immediate vicinity having a diameter of of 1-4500 of an inch. They were so numerous as to constitute about one fourth or even a larger portion, of the entire globules of the blood.

"The mass of the blood after death presented very abnormal characters. The splenic veins and arteries were greatly enlarged, and it was found that all the veins constituting the portal system were enormously dilated, and distended with semi-coagulated blood, of the consistence of that substance which may be squeezed out of a soft pulpy spleen, but of a peculiarly greyish purple color. Some of the omental veins were so dilated as to equal the femoral in size, and their coats were remarkably thin. Further examination proved that all the vessels contained in the abdomen were

greatly dilated, and filled with this same gromous blood."

The writer speculates, without arriving at any positive conclusion, as to the origin and progress of this change, and he usefully indicates the propriety of ascertaining how far a similar condition of the blood exists in all cases of enlarged liver and spleen.

ON THE TREATMENT OF BURSA DISEASE OF THE KNEE-JOINT.

In a communication to the same journal, Mr. Skye describes the practice which he has found useful in the inconvenient and painful malady known as housemaid's knee. Counter-irritation by blisters he believes an inefficient mode of treating the disease, and excision barbarous and unnecessary. His practice may be learned from the following paragraph:—

"If such amount of inflammation be excited in a diseased bursa as will produce suppurative action, an abscess will form, which may be brought to a crisis, if necessary, by puncture; but in soft or fluid bursæ this crisis is not requisite. The effect of a thread passed through the sac as similar to that of the same agent in the case of hydrocele or ranula—viz: the secretion is absorbed without being discharged by a wound and the cavity is obliterated. But in the hard and consolidated form of the disease, the effect of the thread is that of producing suppuration. The hard mass, as it were, breaks down into a common abscess, which, when punctured, discharges its contents, and heals. In this manner, I have treated diseased bursæ for many years. A common thread of silk should be passed through the centre of the tumour, especially so in the hard form, in order to insure its including the central cavity, for this I believe to be necessary. The time it should be allowed to remain will depend entirely on the effect produced. Occasionally, the tumour shows great indifference to its presence; at other times, and in other persons, smart inflammation follows, accompanied with considerable pain, in the course of a day or two. The inflammation may extend over the front of the joint. The thread should then be removed, and the knee fomented or poulticed; and from that period the disease may date its onward march towards a final cure.—Nothing can be more satisfactory than the steady progress these cases generally make. When the bursa is large and hard, the thread should remain until a good deal of inflammation is produced, even though suppuration be established, which will be indicated by the oozing of pus from the punctures. The thread being then removed, either the

abscess will become more matured, and demand relief from the lancet, or the whole mass of the disease, now become fluid, will undergo gradual absorption. I have cured many cases in the early stage in three weeks, but they more frequently require a month or five weeks, particularly when the absorption of a large mass of lymph forms a necessary part of the process of cure."

When the bursa is too deep to allow of the application of the thread, Mr. Skye recommends injection and pressure. The injection, it may be inferred from Mr. Skye's desultory style of writing, is to be composed of a weak solution of sulphate of zinc.

ANALYSIS OF KIDNEY IN BRIGHT'S DISEASE; VERY LITTLE FAT, BUT AN EXCESS OF ALBUMINOUS AND FIBRINOUS MATTER FOUND.

"Dr. Black read an account of a chemical analysis of Bright's kidney in the advanced stage. The kidneys were larger than in health, and mottled, and to the naked eye presented well-marked appearances of what had been called granular kidney; on inspection with the microscope, however, only very few oil-ovules could be seen.

"355.5 grains of the kidney, after gentle pressure between between folds of linen, were cut into very small and thin pieces, and subjected for two hours to boiling in water, in a Florence flask. He obtained in this manner a milky-looking fluid of the sp. grav. 1008 a 62°, which was filtered.

"147.7 grains of firm residuum remained upon the filter, showing that 207.8 grains of the portion of kidney subjected to boiling had been taken up in solution or suspension by the water.

"No fat or oil-ovules, beyond a mere trace, appeared on the milky looking fluid, which was neutral in its reaction on test paper.

"Half of this fluid was evaporated to dryness, and thirty grains of dry residuum were obtained, which residuum was not at all soluble in ether, but entirely dissolved in liquor potassæ.

"The other half of this fluid was treated with nitric acid, which threw down a cloudy flocculent precipitate.

"The firm matter, weighing 147.7 grains which had resisted the action of boiling water, was digested in pure liquor potassæ: a thick brownish colored solution was thus obtained, which, on being filtered, left ten grains of dense and thready animal fibre upon the filter.

"After filtration, the solution was precipitated by hydrochloric acid; and the white

cloudy precipitate, when dry, weighed thirty grains.

"As the principal results of his analysis, Dr. Black ascertained that one thousand parts of the diseased kidney were composed as follows;—

Albuminous and fibrinous matters	281.6	
Hydrogenous constituents		} 718.3
Salts		
Free oil-ovules—a trace		
	1000	

"He was disposed to apportion 40 per cent. of the albuminous and fibrinous matters as the healthy constituents of the renal structure, whilst he believed the remainder would represent the adventitious albumen resulting from the pathological state.

"Dr. Black spoke of this as being the first of a series of analyses of the kind which he is about to undertake."

We take the above extract from the proceedings of the Manchester Pathological Society. The conclusions of Dr. Black are highly interesting, and quite opposed to the view which has been lately taken of the nature of Bright's disease—viz: that it is the result of an increase of the fatty elements of the kidney. Dr. Black shows experimentally, that this deposit is absent; it therefore cannot be the cause of the disease: the same experiments show the presence of an excess of albuminous and fibrinous matter. These observations confirm, in a remarkable manner, those made by Dr. Quain on this disease, and published in this journal some time ago.—*Lancet*.

DR. FORBES ON MESMERISM.

The October number of the British and Foreign Medical Review, published in London, quarterly, by Dr. Forbes (author of Young Physic), "Physician in Ordinary to her Majesty's Household, Physician Extraordinary to his Royal Highness Prince Albert," contains a long review of Dr. Esdail's "Mesmerism in India, and its practical Application in Surgery and Medicine." Dr. F is a man far advanced in life, and is placed by common consent at the very head of the Medical Profession. Up to the commencement of this year, he has been considered ultra-sceptical in reference to all new things. In the January number, 1846, he made a clean breast of his views upon Medicine, and publicly repudiated the system (Allopathy)

he had all his life pursued. In the number before us, he intimates to the professional brethren that the evidences in favor of Mesmerism can no longer be "philosophically disregarded." We give an extract:

"Having, however, fully admitted the high probability of some of Dr. Esdail's statements concerning the painless character of the surgical operations; and being, indeed from many circumstances, well convinced that a great depression of outward sensibility, if not its temporary abolition, will in some constitutions, result from practice of the Mesmeric art, we will now proceed to the consideration of what we deem to be reasonable corollary, from this admission on our part. We conceive, then, that the evidence attesting the fact of certain abnormal states being induced by Mesmerism, is now of such character that it can no longer be philosophically disregarded by the members of our profession, but that they are bound to meet it in the only way in which alleged facts can satisfactorily be either verified or confuted—by observation and experiment. When it is positively affirmed that the Mesmeric processes will sometimes render a patient utterly insensible to the surgeon's knife. when detailed illustrations of this fact are recorded almost every day, how can we fairly reject such statements, unless we go to Nature, observe for ourselves, and demonstrate the source of the monstrous fallacy that is deluding members of the profession and the public alike? Indeed, we hesitate not to assert that the testimony is now of so varied and extensive a kind, so strong, and in a certain proportion of cases so seemingly unexceptionable, as to authorize us, nay, in honesty to compel us to recommend that an immediate and complete trial of the practice be made in surgical cases. If experience like that which Dr. Esdail relates to us be but true in one-tenth, nay, one-hundredth of its particulars, we hold that a case is made out demanding searching inquiry. If Mesmerism, even in its humbler pretensions, be absolutely untrue, let it be proved to be so. If careful observation and repeated experiment lead to the detection of some hitherto hidden cause of error and mistake that has deluded and mystified the more honest class of Mesmerists, what a service will be rendered to humanity and to truth if this can be proclaimed on perfectly just and adequate grounds. In how much better a position shall we be after investigation for confuting the imposture, if such it shall turn out ultimately to be, than in continuing to treat the subject with contemptuous disregard! Of one thing let us rest assured, not only the

public, but the more sober thinking of the profession will, ere long, hold those at a disadvantage, who, in opposition to facts, apparently well authenticated, can or will but adduce mere unsupported argument, or ridicule.

"There would appear to be to conditions attaching to any novel practice in medicine, independently of the authority by which it comes recommended, that should influence its title to a fair trial; first, the extent of the anticipated benefit, and, second, the degree of possible mischief attending its employment. Now, the promised advantages of Mesmerism is surgical operations correspond with these requirements in an eminent degree. If the statements be corroborated, and if insensibility can be produced artificially, surely the immense acquisition both to operator and patient is obvious at once; and, according to all the evidence that exists upon this subject, mischief very rarely follows the practice of Mesmerism in the event either of success or failure. "I beg to state," says Dr. Esdail, "that I have seen no bad consequences whatever, ensue from persons being operated on in the Mesmeric trance. Cases have occurred in which no pain was felt, even subsequent to the operation, and the wounds healed by the first intention and in the rest I have seen no indication of any injurious consequences to the constitution. On the contrary, it appears to me to have been saved, and that less constitutional disturbance has followed than under any ordinary circumstances. If then good is possibly to ensue, and mischief is but little to be feared from the experiment, why not candidly make it! Assuredly experiments in therapeutics are constantly made on grounds far less reasonable. If a single practitioner of any eminence recommend some novel and heroic treatment in serious disease, multitudes are ready to try it; however perilous to the patient the trial, a priori may appear. Although at the present day, it is pretty well made out that pneumonia, in many instances, will come to a successful issue with little depletion some dozen years since large numbers of the profession, especially in France, did not hesitate, on the recommendation of M. Bonillard, to bleed coup sur coup; and, about twenty years ago, when Dr. Armstrong bled largely, and administered heroic doses of calomel in the incipient stage of fever, many persons felt themselves authorized in adopting the treatment experimentally. Yet, in these instances, a degree of risk to the patient was incurred in the attainment of the possible benefit, and there was, moreover, an uncertainty in deciding

upon the exact nature of the result, which, as regards Mesmerism in surgery, would not be experienced. Again, we say, let it be tried upon patients about to be submitted to the knife; if true, let us have the benefit of it, and if false let the falsehood be demonstrated."

ON ELECTRICITY

CONSIDERED

As a Physiological and Heat-Producing Agent. The purposes answered by food taken into the System, and the Refrigerating Influence of Respiration.

BY J. W. LAKE, ESQ., HOLBEACH.

As the theory of animal temperature still remains one of those points in physiology not yet clearly demonstrated, the following suggestions, explanatory of this phenomena, may not prove unacceptable.

A long course of observation has enabled me to arrive at the conclusion that every operation of nature, both in the organic and inorganic kingdoms, is occasioned, either directly or indirectly, by that power or agent already known to us under the term electricity; that this subtle principle acts, as it were, as the link connecting these functions with the fiat of the Creator. Taking this enlarged view of that mysterious power which

"Lives through all life, extends through all exist,
Spreads undivided, operates unspent."—Pope

I have, by identifying it with heat in the inorganic kingdom, been enabled to throw some additional light on many of the physiological functions. But for the identification: Sir David Brewster has proved to us that there are, in the northern hemisphere, two poles of extreme cold, and that these poles are also the magnetic poles or spots at which the needle assumes a perpendicular position. He has shown also that lines drawn equidistant round these poles, are isothermal, or lines of equal temperature. Again: the magnetic equator does not correspond with the terrestrial equator, and the isothermal line follows the course, not of the terrestrial but of the magnetic equator. Who then can doubt the intimate relation existing between heat and electricity? and if, coupled with this, we regard the sun as the source of both, we have the conviction of their identity still deeper impressed within us. But more than this, Derbock has shown us how to convert heat into electricity; and Peltier has taught us how to convert electricity into heat. What more than such points can be wanting to convince the most sceptic?

al that heat and electricity are one and the same agent? And if we are at present unable to determine the exact laws which govern its access in these varied states, it is a proof, not that these laws do not actually exist, but rather, that our ignorance and misdirected research have hitherto been a barrier to their discovery. Still, however, as it is of the highest importance to the stability of the theory I am about to propose, that this identity should be completely and undeniably established, I will further trespass upon attention to add what I might almost term a mathematical proof of the fact. For instance, let us take a pound of water at the ordinary temperature of the atmosphere; by the passage of a stream of electricity this water is converted into a certain bulk of the mixed gasses, which we must represent by water, the electricity consumed in its transformation. If we combine these gasses so as again to form water, we find no trace of electricity given off, but their reunion is accompanied by an intense degree of heat. Now, as heat and electricity are finite agents, which can neither be created nor destroyed, the questions to be solved are—Where has the electricity gone to?—Where did the heat come from? It is clear that the electricity absorbed in the decomposition of the water has been again given out as heat on the reunion of the gasses; in short, we have it as an established fact that electricity and heat are identical. Now it is by a conversion of electricity into heat that I intend to account for the phenomenon of animal temperature, and it will therefore be necessary for me first to show that the body is continually receiving a supply of that agent.

It is an admitted fact in physiology, that the particles which form our bodies are continually undergoing a change; and although the softer portions are more frequently renewed than bone and cartilage, yet an attempt has been made to fix the average length of time for such change to be effected, and at a low calculation seven years is the time fixed upon—that is, it is computed that in seven years we shall, by means of the nourishment derived from our food, have formed an entirely new body. But during that period, we shall have consumed on a low calculation, between 4000 and 5000 lbs. of solid food. Now the average weight of a man, including fluids, is 150 pounds, and yet, to form a new body, he must consume nearly a couple of tons of solid food, exclusive of liquids, every particle of which is capable of being converted into animal matter. It is evident, then, that while food serves to nourish our frames there must be

some other great purpose answered by it, or nature must have been very remiss in her workmanship. The size, too, of the thoracic duct, the channel by which nutriment is received into the system, bears a very small proportion to the bulk of food necessary to appease the sensations of hunger.—It is clear, then, that while nutrition is a very necessary function, it is yet only secondary to some other great end which the bulk of food is destined to answer. For if we refuse to admit this mode of argument, if we consider nutrition as the only service derivable from food, and then see, as is above shown, that a man must take thirty ounces of food to supply one ounce of waste—do we not perceive at once a great apparent departure of nature from the admirable and economic system in which all her operations are conducted? Are we not compelled to exclaim with the poet—

“Reasoning I oft admire,
How Nature, wise and frugal could commit
Such disproportions”—MILTON.

Now as electricity is elicited by chemical decomposition and as chemical decomposition of the food occurs immediately it is received into the stomach, in the process called digestion, there is every reason to suppose that the purpose which a bulk of food is destined to serve, is, to afford by its decomposition a sufficient supply of animal electricity; and this seems to be, in a great measure, borne out by observation. Food is very variable in its nature. Spirits afford a large amount of heat while burning—a proof that their chemical decomposition in the stomach affords a large amount of electricity. Meat and all kinds of stimulating and animal food afford a much greater supply of this agent than does a bread or vegetable diet. Hence we find that a great drinker is but a little eater; and why? He supplies a sufficiency of electricity from spirituous liquors, and he therefore only requires a small amount of solid food to answer the purposes of nutrition. A person living on a good supply of animal food requires much less bulk than those compelled to subsist wholly on vegetable diet. The bulk of a good meat meal is very disproportionate to the mass of oatmeal porridge consumed by the Highlander, or the potatoe diet of the Irishman. Food, then, is intended to serve the great purpose of keeping alive the vital spark, by supplying the subtle agent on which its existence depends; and this carries with it the conviction, that it is the electricity thus eliminated that constitutes the nervous agent, and that it is a diminution of this subtle principle in our system that oc-

casions the sensation of hunger; for we cannot suppose for a moment that this motion arises from any wasting of the body requiring reparation, whilst the languor and debility occasioned by abstinence, and the soul-reviving invigoration produced by refreshment, clearly point out that muscular debility, and not muscular diminution, was the cause of hunger, and that it was a fresh supply of animal spirit, and not animal fabric, that was needed.

We have the stomach, then, as the laboratory in which the vital agent is eliminated, and we must view the brain, not with Dr. Arnott, in the light of a galvanic battery, but merely as a receptacle or reservoir, in which this agent is received, and from which it is dispensed—the par vagum, or pneumogastric nerves, being the medium of communication. This view will readily explain to us why a state of collapse, or deficiency of nervous energy should be occasioned by a blow upon the stomach, as also the unpleasant sensations, termed headach, produced in the brain, when, by means of spirits or high seasoned food received into the stomach, too great a quantity of the vital agent has been directed to it. Now, with regard to animal temperature, space will not permit me to allude individually to the various theories which have been put forward explanatory of this phenomenon; but classing them as those which refer the source of heat to the changes occurring in the lungs during respiration, and as those which refer it to the contractions and dilatations of the heart and arteries, I will briefly endeavor to prove their fallacy.

Respiration is essentially a cooling process. Witness the respiration of a dog, who perspires almost solely by the tongue, and whose quick panting respiration is the chief means of cooling its overheated body. I do not for a moment deny that the decarbonization of the blood is attended by an evolution of heat; but I assert that the heat thus produced is insufficient even to raise the bulk of air inspired from the temperature of the atmosphere to that of the lungs, and as the expired air is of a temperature equal to that of the body, it follows that at every expiration heat must be carried off, and that the process, so far from imparting heat, is one of the means by which the cooling of our bodies is effected. Another class of theorists suppose, with Dr. Winn, that the alternate contractions and dilatations of the heart's arteries prove an efficient source of animal temperature, in the same manner as that a piece of caoutchouc becomes heated when suddenly stretched. But are these theorists aware that heat is a finite agent, and must have a source? That

if this contraction and dilatation produced heat, in the absence of any chemical change taking place in the parts themselves, this heat must be derived from the surrounding parts, and therefore this process, while it might, perhaps, elicit heat, could not in any way be considered as its generator.

The only theory worthy of consideration is that proposed by that eminent physiologist, Sir Benjamin Brodie, whose experiments have clearly proved that animal temperature is dependent entirely upon the nervous system. But increased nervous excitement is attended not only with increased temperature but also with increased circulation and increased respiration; and this accounts for the error into which so many have fallen in searching for the cause in these latter functions. Assuming, then, electricity to be identical with the nervous agent, the following I conceive to be the modus operandi of its heat-producing properties;—we find throughout the system that the necessary apparatus for carrying on organic life consists in a vein an artery, and a nerve. The nerve conveying the peculiar principle of vitality, exerts a decomposing property, and effects a decomposition of the parts to which it is directed, the results of which are taken up by the veins, which here act the part of scavengers of the body, while the arteries furnish fresh matter to be converted into animal fabric; and it is the chemical combinations which here take place that prove the efficient source of animal heat. This I consider to be the modus operandi of the healthy state. Now the production of heat in fever appears to arise from a different source, and I should conceive it to be in great measure dependent upon the immediate conversion of the nervous agent into heat, arising from the nerves being too highly charged, in the same way that a wire becomes red hot if it be insufficient to conduct the amount of electricity attempted to be passed along it. But then the question arises—Where does the electricity originally come from? In fevers no food is taken. Though in the healthy state, the stomach is the chief source of supply, still there are other channels by which this agent can be received into the system—the pointed fibres of the hair, for instance, thus explaining the good effects resulting from shaving the head, and insulating it by an oilskin cap with the use of evaporating lotions, which all prove such serviceable remedies in the severer forms of febrile affections.

Now if nervous influence be the source of heat, mental emotions, which produce such sudden changes in the nervous system, should also exert an influence over the temperature of the body, and we find that a

udden flush or a death-like chillness are the effects of the exciting or depressing passions. For instance, in the case of extreme fright there is generally a loss of heat, accompanied with contractions of the muscles, and a bristling sensation of the hair. Painters in depicting this emotion, have it variably done so by these characteristics! and Shakspeare, one of the greatest observers and analyzers of man that has appeared, especially alludes to them.

I could a tale unfold, whose lightest word
Would harrow up thy soul: freeze thy young blood!
And make—
Each individual hair to stand on end,
Like quills upon the fretful porcupine.

Now, in this bristling sensation, the veriest tyro in electrical science cannot fail to observe an electrical phenomenon—the escape of electricity by the pointed fibres of the hair, whilst the loss of heat indicates the loss of electricity, and the contraction of the muscles indicates its passage. This, too, affords a convincing proof that the mental and physical agents are the same. Here mental emotion produces physical disturbance; in that physical disturbance we recognise electricity, and therefore we conclude that this agent is productive alike of our mental and corporeal faculties; that the human mind is mysteriously connected with it; in short, that electricity is the vital principle. That electricity is the vital agent is an idea by no means new or original; but the causes which have presented a more clear demonstration of the fact have been the limited views which philosophers have taken of this mighty agent. The snap and the spark have been too much regarded as the sole test of its presence, and therefore when they have recognised it in the rolling thunder and withering lightning of the tempest they have failed to discern it in the secret power that governs the reins of the whirlwind, or in its milder character, as the instrumental means of tempering and regulating climate, and as producing by its varied action, all that is delightful, mournful, or terrible in Nature. They have traced it as the silent agent, which, deep in the bowels of the earth, is productive of mineral formation; but they have forgotten to follow its workings through the various grades of vegetable and animal life, till they should arrive at the crowning feature of creative skill—man.

"Connexion exquisite of distant worlds!
Distinguish'd link in being's endless chain!
Midway from nothing to the Deity."—YOUNG.

To study man aright, he must be considered, not as a machine, complete and perfect

in itself, but as a being connected with external objects, and influenced by external causes; as a part, in short, of that creation, of which it is happily said, that

"One common soul
Inspires, and feeds, and animates the whole."—
DAYDEN.

This is the view which a philosopher must take of creation, before he can comprehend its mysteries; this is the only means by which he will be enabled to penetrate into the secret recesses of Nature; and although the possession of the Promethean fire must ever be ranked with the impossibilities of the elixir vitæ and philosopher's stone, yet Nature, viewed in this light, will open up to us new themes for our admiration, new wonders for our amazement, and as the great scheme of creation becomes more unfolded to our view, we shall exclaim in the impassioned language of Byron.

"Are not the mountains, waves, and skies, a part
Of me, and of my soul, as I of them?"

HOLBEACH, OCT. 1846.

PATHOLOGICAL SOCIETY OF LONDON.

DR. C. J. B. WILLIAMS, PRESIDENT.

October 20th, 1846.

This was the first meeting of the new Society. The rooms (No. 21 Regent-street) were crowded. Among the gentlemen present we noticed, Drs. Copland, Babington, Clendinning, Benco Jones, Roget, Owen Rees, Barlow, Bennett, Ramsbotham, Lever, Hughes, Golding Bird, Johnson, Peacock—Messrs. Arnott, Ltston, Benjamin Phillips, Partridge, Macmurdo, Kingdon, Hilton, Simon, Cock, Hewett, Fuller, Crisp, Critchett, Dalrymple, Poland, Busk, &c.

The President opened the proceedings with the following address:—

GENTLEMEN,—In opening the public proceedings of the Pathological Society of London, in this first year of its existence, I cannot but feel the painful disproportion between the vastness and importance of the objects which are contemplated in its formation and my power to do them due justice. But the obvious merits of our cause set aside all personal considerations, and confiding in

their own greatness and strength, rather than in my feeble advocacy of them on this occasion, I beg to submit to your attention a few remarks on the uses and difficulties of the study of pathology, and the modes in which the proceedings of this Society are calculated to advance it.

That practical medicine, as a science, and as an art, is a most intricate and difficult subject, will be admitted by all who have conscientiously engaged in its pursuit,—from the zealous student, who, when he leaves the comparatively easy and pleasant paths of the introductory sciences, struggles in the thickets of the practical department to the veteran practitioner, who after much toil and disappointment in trying to thread the labyrinth, has been compelled to work his way by some short cut of empirical routine.

That practical medicine is unsatisfactory, as well as difficult, is obvious, not only from the notorious popularity of empiricism, in any new form, but also from the avowed scepticism in its utility, of many who stand high in the profession, and, I lament to add, from the desertion from its ranks of some few estimable men into the erratic bands of homeopathy, hydropathy, mesmerism, or some such specious chimera.

It would detain you too long were I to go through all the steps of the argument, by which, as I think, it may be proved that one, if not the great reason why the study of medicine is so difficult and so unsatisfactory is because it has hitherto been taught and treated too metaphysically,—too much by closet speculation,—too much by book description, mystified, or cramped, as this often is, by a vague or Procrustean phraseology, derived from ages in which it would be vain to expect language commensurate with the advanced knowledge of the present day.—Too little has been done by physical demonstration—too little by appeals to the senses—too little by direct observation and experiment—too little by habits of that careful and accurate investigation of phenomena, to which, alone, Nature discloses her truths.—Hence the knowledge obtained by the student is that of abstract kind that helps him little at the bedside of the patient. It has not upon it the stamp of Nature; he finds much more or much less than what he expects from the description of others, and his senses are unpractised to discern for himself.—Herefrom arise confusion, vacillation, and failure in practice; and distrusting all scientific medicine, he either falls into a narrow routine of empiricism, or becomes a ready advocate for any partial hypothesis which applies some universal remedy, or easy line of treatment to all diseases.

We want then the means of rendering the study and science of medicine more personal and practical, more a subject of individual observation and demonstration; and for this end, we look first, to clinical medicine, and guided by the experience and applied skill of former observers, our understanding enlightened by the standard truths of anatomy and physiology, our senses sharpened and aided by all that optics, acoustics, hydraulics, mechanics, and chemistry can do for us, we examine signs and symptoms, and make ourselves acquainted with disease in the living body. But our research stops not here: we pursue disease even to the field of its triumph in death; and there in the sad havoc which the destroyer has made in the organization, we find out the mode of his warfare, trace out his weapons and plans of attack, and thus prepared, seek for means of counteracting them in due time.

Such appears to be the proper method of study; but we soon find new difficulties in carrying it out. Those encountered in clinical medicine I pass by, and proceed briefly to notice the chief difficulties in the study of pathological anatomy.

One great cause of the difficulty of mastering morbid anatomy is its great variety and the want of means to illustrate it by demonstration. No one questions the necessity of demonstrations and actual dissection, in order to obtain a due knowledge of healthy anatomy, and much time and labor are properly bestowed on these studies. Yet one healthy body dissected is a type of all.—It is quite different with morbid anatomy: disease and its results present infinite varieties, which yet require to be seen to be properly understood; and no one can hope to obtain a comprehensive knowledge of the anatomy of disease without witnessing post-mortem examinations for a series of years. The ordinary career of a student at a hospital enables him to see but a tittle of this extensive subject; and even hospital physicians, with years of experience, are frequently encountering something new. I have myself been at the work a quarter of a century, and have assisted in the examination of more than two thousand bodies, yet even now I rarely attend one without finding out something that is new and instructive. How little chance is there, then, for practitioners to become conversant with this most instructive branch of medical science, with their scanty opportunities, reduced, too, as they are, by want of time and inclination for the pursuit, and by the difficulties arising from popular prejudice!—*Lancet*.